NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
Site Classification Report

DATE: 11/4/2011

Site Code: 738013 **Site Name:** Cole-Zaiser
City: Amboy **Town:** Amboy
Region: 7 **County:** Oswego
Current Classification: 02 **Proposed Classification:** C
Estimated Size (acres): 0.50 **Disposal Area:** Structure
Significant Threat: Previously **Site Type:**
Priority ranking Score: 0 **Project Manager:** John Grathwol

Summary of Approvals

Originator/Supervisor: James Moras	**09/23/2011**
RHWRE: Harry Warner:	**10/11/2011**
BEEI of NYSDOH:	**10/19/2011**
CO Bureau Director: Robert Cozzy, Director, BURB:	**10/14/2011**
Assistant Division Director: Robert W. Schick, P.E.:	**11/04/2011**

Basis for Classification Change

VOC-contaminated soils were excavated and treated via ex-situ soil vapor extraction (SVE) as required by the Record of Decision. Post-excavation soil sample results demonstrate the contaminated soil was completely removed for SVE treatment. Treated soil was backfilled on site after treatment was completed. The results of the groundwater monitoring program indicate that the concentrations of the contaminants of concern meets drinking water standards and Record of Decision cleanup goals for the site (all VOCs range from ND - 4.3 ppb). The Soil Vapor Intrusion No Further Action memorandum was originally approved by DEC/DOH on 4/29/09 as the on-site structures were partially demolished and the off-site structures were not in contact with the ground surface. Since the SVI NFA document was issued, VOC contamination in groundwater meets the ROD objectives and is no longer an issue. With the soil, groundwater and soil vapor intrusion issues properly addressed, this site is no longer a threat to human health and the environment and can be delisted from the NYS Registry of Inactive Hazardous Waste Sites.

Site Description - Last Review: 10/21/2011

Location: The site is located in the Town of Amboy, Oswego County, NY.

Site Features: There are two structures in disrepair on site (a home and an unattached garage).

Current Zoning:

DATE: 11/4/2011

Site Code: 738013 **Site Name:** Cole-Zaiser

The site is inactive, and is zoned for commercial use. The surrounding parcels are residential.

Historical Uses:
Cole-Zaiser operated a small waste oil reclamation business on this property from 1973 to 1976. The business operated out of a small cinder block building that is located in a rural part of Oswego County.

Waste motor, hydraulic, crankcase and industrial oils were reclaimed through a filtration/dehydration system that was housed in the building. The waste oils and reclaimed oils were stored in two above ground tanks located adjacent to the building. After the business was discontinued in 1976, all of the reclamation equipment and the storage tanks were removed. The property was sold in 1976, was subsequently used as a private residence, currently vacant.

The drinking water supply well located on the property near the building was sampled by the DOH in 1987. Analysis revealed a low level of trichloroethylene (TCE) at 2 ppb. An additional well water sample and a soil sample were taken by DEC staff in September 1987 which reconfirmed the contaminant levels. A Phase I Investigation was completed for this site in June of 1989, and a Phase II Investigation was concluded in December of 1992. The NYSDOH sampled the nearest off site residential well in 1992, and found that there were significant levels of trichloroethylene (TCE) in the water. A granulated activated charcoal (GAC) filter was installed on the drinking water line at this residence in July of 1993. One of the PRPs signed a Consent Order for a Remedial Investigation/Feasibility Study (RI/FS). The RI/FS was completed, and a Record of Decision (ROD) was signed in early 1999. The selected remedy required ex-situ Soil Vapor Extraction and installation of a new drinking water well for a local resident. Source remediation and site restoration was completed in July 2002. On-site deed restrictions are executed. A soil vapor intrusion (SVI) evaluation was completed in April 2009. A groundwater monitoring program was completed in 2009 as the sampling results met ROD objectives.

Operable Units:
The site was divided into two operable units.

An operable unit represents a portion of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination.

Operable unit 1 (OU1) pertains to the remedial program for the site as specified by the Record of Decision. The soil source of the VOC contamination was treated by ex-situ soil vapor extraction. The groundwater was monitored until drinking water standards were met.

Operable unit 2 (OU2) pertains to the evaluation of soil vapor intrusion which was completed.

Site Geology and Hydrogeology:
This site lies within the eastern portion of the Erie-Ontario Plain physiographic province, near the western edge of the Tug Hill plateau. The predominant source of groundwater in the area is bedrock. Groundwater is also present in the overburden, but sustained well yields are quite low. The water table parallels the topography of the land surface and occurs at an average depth of 17 feet. The entire population within a

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3-mile radius of the site is served by private supply wells as there are no public water supply systems in the area.

Current Status:
The Department began the process to delist this site from the NYS Registry of Inactive Hazardous Waste sites.

Contaminants of Concern (Including Materials Disposed)	**Quantity Disposed**
OU 01	
TRICHLOROETHENE (TCE)	0.00
DICHLOROETHYLENE	
1,1,2-TRICHLOROETHANE	

Analytical Data Available for : Groundwater, Drinking Water, Soil, Soil Vapor, Indoor Air

Applicable Standards Exceeded for: Groundwater, Drinking Water

Site Environmental Assessment- Last Review: 10/21/2011

The soil source of contamination has been remediated. The groundwater monitoring program is completed as all groundwater sampling results meet Record of Decision objectives. Therefore, remediation at the site is complete and the site no longer presents a significant threat to the environment.

Site Health Assessment - Last Update: 10/21/2011

There are no concerns for human exposures because the site has been successfully cleaned up.

	Start		End	
OU 00				
Site Management	1/1/01	ACT	3/31/12	PLN
OU 01				
OGC Docket - Other	4/30/10	ACT	7/31/10	ACT
Reclass Pkg.	9/26/11	ACT	12/31/11	PLN
Remedial Action	5/15/01	ACT	7/17/02	ACT
Remedial Design	12/27/00	ACT	5/10/01	ACT
Remedial Investigation	6/1/95	ACT	12/1/98	ACT
Site Characterization	2/1/90	ACT	9/1/92	ACT
OU 01A				
Remedial Action	1/1/93	ACT	9/1/93	ACT
OU 02				
VI Evaluation	1/4/07	ACT	4/29/09	ANF

Remedy Description and Cost

Remedy Description for Operable Unit 01

The selected remedy in the ROD included the excavation of contaminated subsurface soil, and on-site treatment of that soil using ex-situ soil vapor extraction. Treated soil was backfilled on site

after treatment was completed. An impacted off-site residential well was replaced with a new well outside the area of groundwater contamination. Deed restrictions were placed on the site and impacted residential property. The estimated present worth to implement the remedy from the Record of Decision is $554,300.

Total Cost

Remedy Description for Operable Unit 01A

Installation and O&M of one GAC system until off-site private water supply well was installed.

Total Cost

Remedy Description for Operable Unit 02

Total Cost

OU 00 **Site Management Plan Approval: 01/01/2001** **Status: ACT**

DATE: 11/4/2011

Site Code: 738013 **Site Name:** Cole-Zaiser

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Form
11/4/2011

SITE DESCRIPTION

SITE NO. 738013

SITE NAME Cole-Zaiser

SITE ADDRESS: Little Pond Road ZIP CODE: 13493

CITY/TOWN: Amboy

COUNTY: Oswego

ALLOWABLE USE:

SITE MANAGEMENT DESCRIPTION

SITE MANAGEMENT PLAN INCLUDES: YES NO

IC/EC Certification Plan

Monitoring Plan

Operation and Maintenance (O&M) Plan

Periodic Review Frequency: once a year

First Periodic Review Date:

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DIVISION OF ENVIRONMENTAL REMEDIATION
Site Classification Report

DATE: 11/4/2011

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Description of Institutional Control

0

Not Applicable/No IC's

Description of Engineering Control

Not Applicable/No EC's

NEW YORK
state department of
HEALTH

Nirav R. Shah, M.D., M.P.H.
Commissioner

Sue Kelly
Executive Deputy Commissioner

October 19, 2011

Mr. Robert Cozzy
Division of Environmental Remediation
NYS Dept. of Environmental Conservation
625 Broadway, 12th Floor
Albany, NY 12233-7017

Re: Classification Package
Cole-Zaiser
Site #738013
Amboy (T), Oswego County

Dear Mr. Cozzy:

Staff reviewed the *Classification Package* (September 2011) for the Cole Zaiser site which proposes to delist the site from the Registry of Inactive Hazardous Waste Sites in New York State. I understand remedial actions have been completed at the site and included the excavation of volatile organic compound contaminated soil, as well as the treatment of those soils via ex-situ soil vapor extraction. A groundwater monitoring program has been completed as all groundwater sampling results meet drinking water standards. Lastly, I also understand that a Soil Vapor Intrusion No Further Action Memo was signed and completed in April 2009.

Based on the available information, I concur with the delisting of the site on the Registry of Inactive Hazardous Waste Sites in New York State. If you have any questions, please call me at (518) 402-7850.

Sincerely,

Steven M. Bates, Acting Bureau Director
Bureau of Environmental Exposure Investigation

ec: A. Salame-Alfie, Ph.D.
K. Anders / G. Laccetti / File
H. Warner – DEC Region 7
R. Schick/ J. Grathwol – DEC Central
K. Lewandowski - NYSDEC, Central

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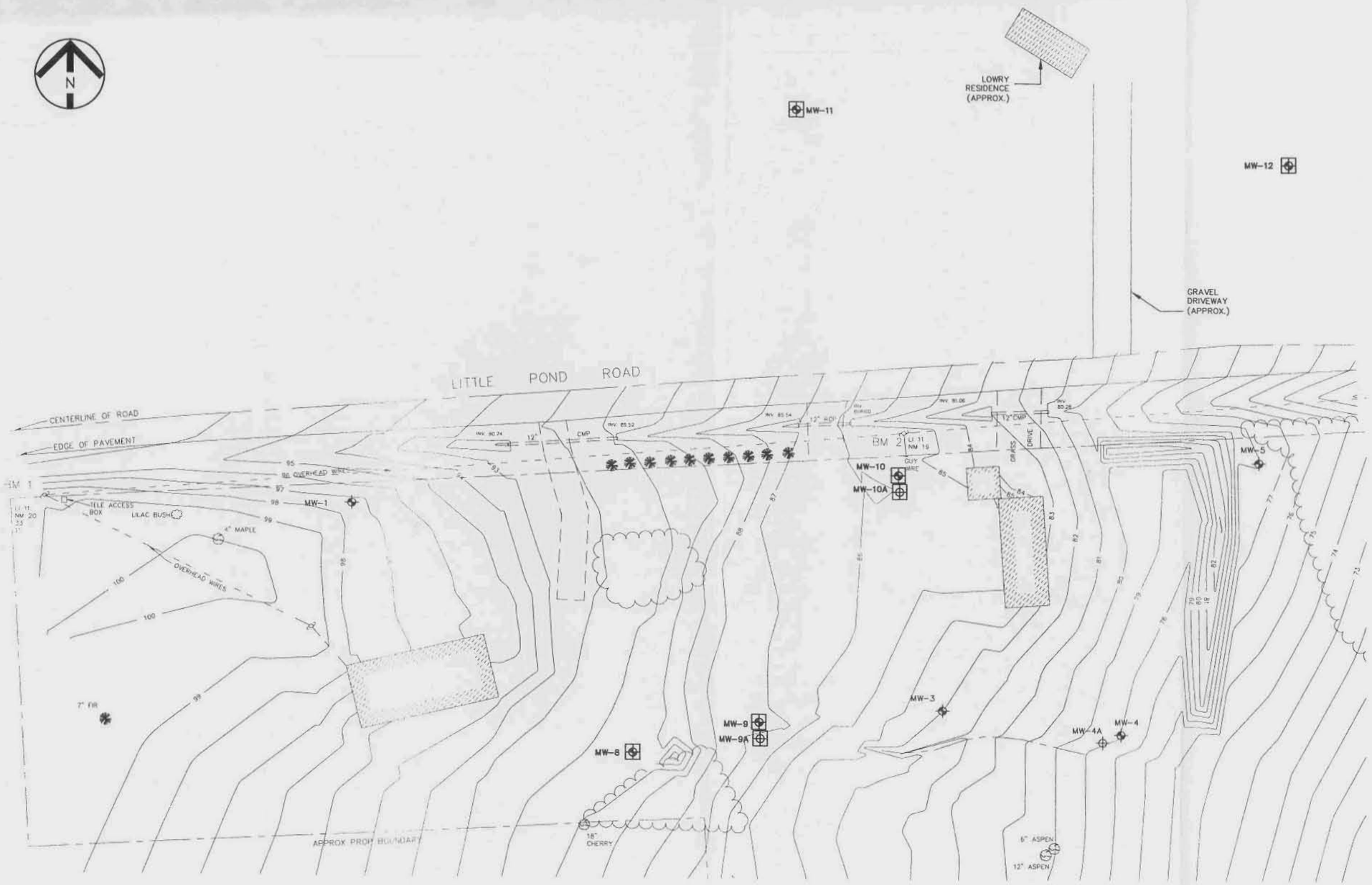


LEGEND

- EXISTING SHALLOW MONITORING WELL
- EXISTING INTERMEDIATE/DEEP MONITORING WELL
- PROPOSED SHALLOW MONITORING WELL
- PROPOSED SHALLOW/INTERMEDIATE MONITORING WELL

0 10 20 40
APPROXIMATE SCALE IN FEET

BAR IS ONE-INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE-INCH, THEN ADJUST SCALES ACCORDINGLY

ISSUED FOR BIDDING — DATE BY

ADDENDUM REVISIONS

ADDENDUM NO	ADDENDUM DATE	BY

ISSUED FOR CONSTRUCTION — DATE BY

REVISIONS

NO.	DESCRIPTION	DATE	BY

RECORD DRAWINGS — DATE BY

DRAWN	COB	DATE	2/23/2001
CHECKED	MJM	JOB NO	49-C2000055
SCALE	AS SHOWN		

EXISTING AND PROPOSED MONITORING WELL LOCATIONS

COLE-ZAISER SITE
AMBOY TOWNSHIP, NEW YORK

URS

FIGURE 2

G:\2000055\ypw\fig2_prop.dwg User:OBrien Plotted:Feb 22, 2001 - 7:08pm Last Save:Feb 22, 2001 - 7:05pm

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau E, 12th Floor
625 Broadway, Albany, New York 12233-7017
Phone: (518) 402-9814 • FAX: (518) 402-9819
Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

MEMORANDUM

TO: Sal Ervolina, Assistant Director, Division of Environmental Remediation

FROM: Robert C. Knizek, Director, Remedial Bureau E, NYSDEC
Steven Bates, Assistant Director, Bureau of Environmental Exposure Investigation, NYSDOH

SUBJECT: Soil Vapor Intrusion Evaluation Determination: **No Further Action**
Site No. 7-38-013, Cole-Zaiser
Amboy (T), Oswego County

DATE: APR 29 2009

NYSDEC Program Policy DER-13 states that vapor intrusion evaluations will be performed at all remedial sites with known or likely subsurface volatile organic chemical (VOC) contamination where remedial decisions were made prior to January 1, 2003. Using the procedures outlined in DER-13 and the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York, the vapor intrusion exposure pathway was evaluated at the above-referenced site. This memorandum describes the results of the NYSDEC/NYSDOH evaluation. Based upon the information referenced below, current or potential vapor intrusion exposures associated with the site have been evaluated and the NYSDEC and NYSDOH have determined that:

No additional investigation or remedial measures are needed at this time to address the soil vapor intrusion exposure pathway.

Evaluation Summary

The vapor intrusion evaluation included a review of historical information from the Remedial Investigation (copy attached), as well as discussions with NYSDEC and NYSDOH project managers and section chiefs/regional engineers responsible for the site. Upon review of the available information pertaining to the above-referenced site and the current land use, it has been determined that no additional investigation or remedial measures are needed at this time to address the soil vapor intrusion exposure pathway.

This determination is based primarily on the following site conditions (check all that apply):

☐ ***No subsurface source of VOCs***
Review of post-remediation confirmatory soil sampling and groundwater monitoring data demonstrates that no subsurface sources of VOCs are known to exist at the site.

☐ ***VOCs not detected in soil vapor or measured below levels of concern***
Recent soil vapor data collected as part of the vapor intrusion evaluation effort indicate that VOCs are either not currently present in the soil vapor, or are present at concentrations which do not require further action to address the vapor intrusion exposure pathway. (Note: In almost all cases, sub-slab soil gas data are needed to support a "below levels of concern" decision under this scenario. In unusual cases, where **the only presence** of low level VOCs is in isolated soil gas monitoring well samples, a "below levels of concern" decision will be considered.)

☐ ***Clean zone of groundwater above the contaminated zone is precluding the migration of soil vapor***
Groundwater data indicate that the site-related VOC contamination is limited to deeper portions of the aquifer and no VOC contamination is present in the shallow groundwater.

✓ ***No current or potential exposures to contaminated soil vapors***

The structures above the site-related groundwater and soil VOC contamination are vacant or have been demolished; there is no current route of exposure via vapor intrusion. In accordance with 6NYCRR Part 375, the Responsible Party must notify the Commissioner of DEC and DOH of any changes in use. There are executed deed restrictions in place for the use of this site property.

☐ ***Exposures have been demonstrated to be occupational (or due to other indoor sources that are not attributable to vapor intrusion), rather than environmental***
There is sufficient analytical data and site information to demonstrate that current exposures are occupational (or due to other indoor sources that are not attributable to vapor intrusion) and are not related to exposure to subsurface contaminants through the soil vapor intrusion pathway and that levels of VOCs in the sub-slub vapor do not indicate a need for actions to address the potential for future exposures.

☐ ***Exposures have been demonstrated to be occupational (or due to other indoor sources that are not attributable to vapor intrusion), rather than environmental***
There is sufficient analytical data and site information to demonstrate that current exposures are occupational (or due to other indoor sources that are not attributable to vapor intrusion) and are not related to exposure to subsurface contaminants through the soil vapor intrusion pathway. However, given sub-slab vapor data, the Responsible Party (NAME) must notify the Commissioner of DEC and DOH of any changes in use in accordance with 6NYCRR Part 375.

Summary Explanation

The site is located in the Town of Amboy, Oswego County, NY. Cole-Zaiser operated a small waste oil reclamation business on this property from 1973 to 1976. The business operated out of a small cinder block building (now vacant) that is located in a rural part of Oswego County.

Two surrounding parcels to the west and north are residential. The rest of the site is surrounded by undeveloped, wooded property.

The on-site structures above the site-related groundwater and soil VOC contamination are vacant or have been demolished. As for the adjacent off-site structures, there are no current routes of soil vapor intrusion exposure.

The source of contamination was remediated via ex-situ vacuum extraction in 2001 and 2002. This site is in the Site Maintenance phase of the project. Groundwater monitoring is performed annually. Attached are the post-excavation soil sample results and groundwater monitoring data.

In accordance with 6NYCRR Part 375, Borg-Warner must notify the Commissioner of DEC and DOH of any changes in use. There are executed deed restrictions in place for the use of this site property. Private use of the on-site groundwater is restricted until all monitoring wells reaching the Record of Decision (ROD) objectives.

There is no public water supply in this area. The PRP successfully installed a new well for the residence north of the site. The Department tested the well and tap water of the residence west of the site. Both private wells sample results were non-detect for the contaminants of concern specified by ROD.

Summary Explanation (continued)

Enclosed is a map of the monitoring wells for the site. The well depths for MW-11 and MW-12 are both 14 feet. Three shallow wells (TMB-01, TMB-02 and TMB-03) are also located North of the site. The well depths of TMB-01, TMB-02 and TMB-03 are 12.7 feet, 10.8 feet and 14.2 feet, respectively.

TMB-02 and TMB-03, are hand dug wells, have a three-foot diameter, and have precast concrete covers. These two wells were primarily used for lawn sprinkling, but are now out of service.

TMB-01 was the original private drinking water supply well for the residence North of the site and was properly abandoned after the PRP installed another drinking water supply well. This active drinking water supply well is 153-feet deep and is labeled as TMB-04 on the enclosed map.

Based upon the information referenced above, current or potential vapor intrusion exposures associated with the site have been evaluated and the NYSDEC and NYSDOH have determined that no further action is necessary for this SVI legacy site.

Concurrence/Signatures

REMEDIAL BUREAU DIRECTOR (OR DSHM BUREAU DIRECTOR AS APPROPRIATE)

Date 4/15/09

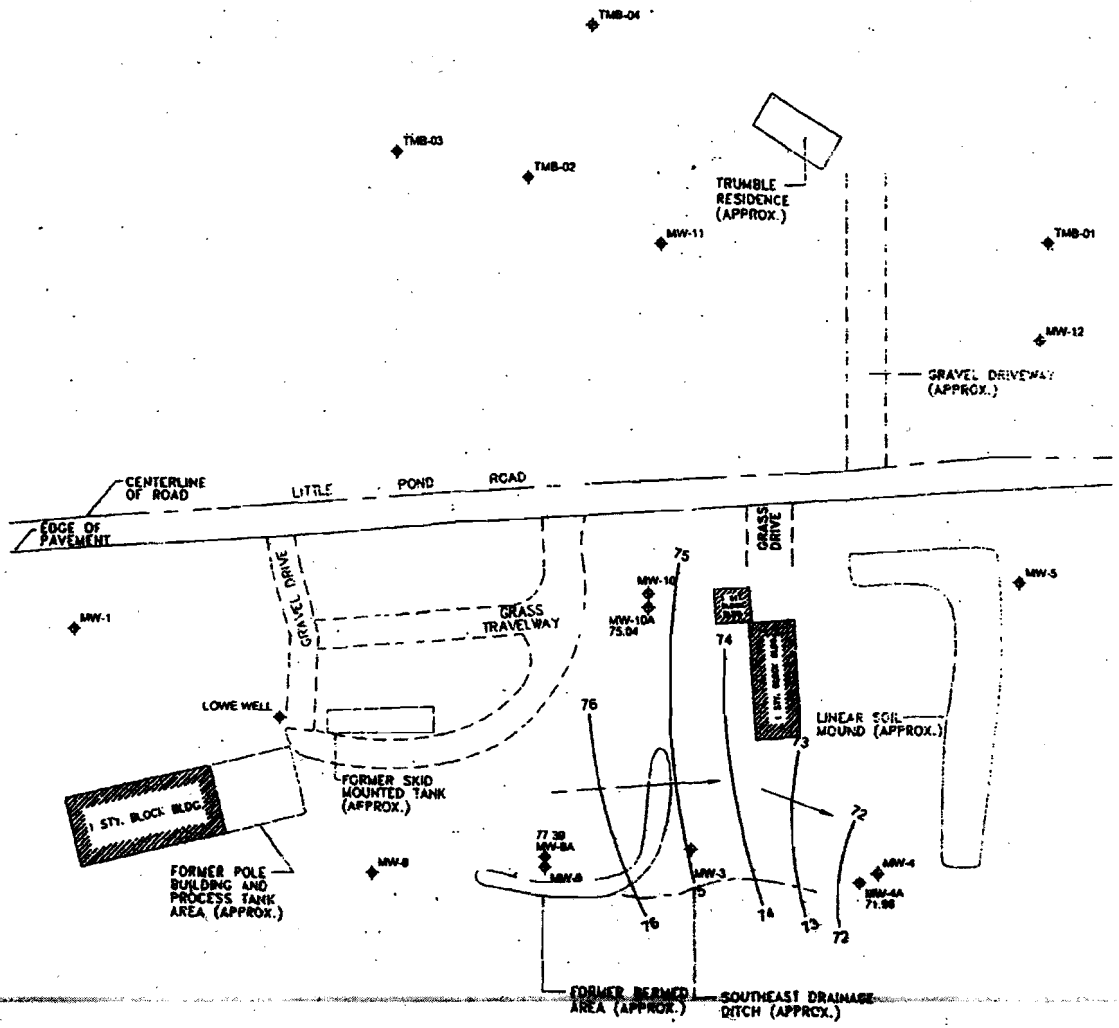
Robert Cozzy, P. E.
Acting Director, Remedial Bureau B
New York State Department of Environmental Conservation

DEPARTMENT OF HEALTH

Date 4/24/09

Steven M. Bates
Assistant Director, Bureau of Environmental Exposure Investigation
New York State Department of Health

ecc: M. J. Peachey, DEC Region 7
G. Townsend, Region 7 DER
K. Anders, DOH
R. Jones, DOH
W. Wertz
E. Hausamann
eDocs
Oswego County Health Department



LEGEND

- MW-1 ◆ EXISTING SHALLOW MONITORING WELL
- MW-2A ◆ EXISTING INTERMEDIATE / DEEP MONITORING WELL
- TMB-01 ◆ OUT OF SERVICE RESIDENTIAL WELLS
- TMB-04 ◆ RESIDENTIAL WATER SUPPLY WELL

NOTES:

1. ELEVATIONS REFERENCED TO FINAL AS-BUILT SURVEY OF COLE-ZAISER SITE DATED AUGUST 6, 2001.
2. NM= NOT MEASURED

N

40 0 40

SCALE IN FEET

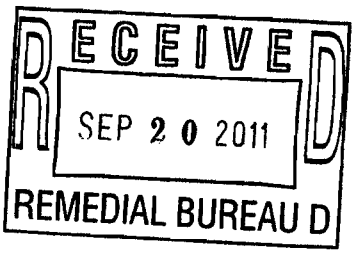
URS 10975 El Monte, Suite 100 Overland Park, Kansas 66211

CLIENT:	BORG-WARNER AUTOMOTIVE, INC
LOCATION:	COLE-ZAISER SITE AMBOY, NEW YORK
TITLE:	DEEP GROUNDWATER ELEVATION AND FLOW MAP JUNE 21, 2006

DRAWN BY	CHK'D BY	APPROVED BY
TMS	LBV	LBV
PROJ. NO	DATE	DWG NO
16529746	JULY 2006	3

URS

September 14, 2011
URS Project 16530332



John C. Grathwol
Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
12th Floor
Albany, NY 12233-7016

Subject: Revised Results of Post-Remediation Groundwater Monitoring and Request for Site Closure
Cole-Zaiser Site (Site Code 7-38-013)

Dear Mr. Grathwol:

Following the completion of a remedial investigation/feasibility study (RI/FS) and remedial design (RD), excavation and ex-situ treatment of the contaminated material from the Cole-Zaiser Site took place beginning in June 2001. The remedial action was substantially complete in 2001, with final activities certified complete as of July 2002. Please refer to the Construction Completion Report prepared by URS Corporation (URS) dated January 2003. Monitoring data have been submitted to the NYSDEC periodically since that time, with sampling occurring quarterly until late 2003, semi-annually from 2003 to 2005, and annually from selected wells thereafter.

This letter contains updated data and a second request for closure of the site (with the first request for closure having been submitted in July 2007).

ACTION REQUESTED

URS, on behalf of BorgWarner Inc. (BorgWarner), requests that the Cole-Zaiser site (Site Code 7-38-013) be closed and the consent decree be terminated. We note that, according to the NYSDEC environmental database, the "Department is currently drafting a reclassification package to delist the site from the NYS Inactive Hazardous Waste Site Registry." We support this reclassification and request that the NYSDEC promptly complete this process.

REMEDIAL ACTION OBJECTIVES ACHIEVED

Several documents prepared for the site include the site remedial action objectives. The Groundwater Monitoring and Post-Construction Operation & Maintenance Plan (URS, 2001) includes the following description of the remedial goals:

- Reduce, control, or eliminate to the extent practicable the contamination present within the subsurface soils to minimize or eliminate the potential for direct contact and future leaching to groundwater
- Eliminate the potential for direct contact or consumption of contaminated groundwater by on-site or off-site receptors
- Provide for the attainment of site-specific cleanup goals for groundwater quality to the extent practicable

The first two remedial goals have been met by the implementation of the remedy, including the deed restrictions imposed on the site itself (previously owned by the now deceased Ms. Dorothy Lowe) and the property to the north (owned by Mr. Michael Lowry). This letter contains a discussion of the attainment of site-specific cleanup goals for groundwater quality to the extent practicable.

GROUNDWATER MONITORING AND O&M PLAN IMPLEMENTED

The Groundwater Monitoring and Post-Construction Operation & Maintenance Plan states that "[a]fter five years of sampling, the groundwater monitoring program will be reevaluated." This letter summarizes the reevaluation of the groundwater monitoring program by providing information in support of BorgWarner's assertion that all conditions of the Consent Decree (Docket 00-CV-1951) have been met.

RECORD OF DECISION SATISFIED

The Record of Decision (ROD) summarizes the remediation goals as follows:

- Reduce, control, or eliminate to the extent practicable the contamination present within the soils on site and their impact to groundwater.
- Eliminate the potential for direct human or animal contact with the contaminated soils on site.
- Mitigate the impacts of contaminated groundwater to the environment.
- Provide for the attainment of site-specific cleanup goals for groundwater quality at the limits of the area of concern (AOC), to the extent practicable.

Again, each of these remedial goals has been met and this letter provides data indicating the remedy has mitigated the impacts of contaminated groundwater and site-specific cleanup goals for groundwater have largely been achieved at the limits of the area of concern.

The ROD also describes the elements of the remedy. The following elements of the remedy discussed in the ROD pertain to groundwater:

"4. To provide treatment of the groundwater component of the contamination source, in and adjacent to the source area, the excavation will be left open and groundwater will continue to be collected and removed for treatment/disposal. The intent of the groundwater removal is not to aggressively dewater the formation, but to remove the groundwater component of the source area. The removal would be ended based upon the hydraulic conditions at the site, after a time period to be determined by the NYSDEC."

Comment: Over 3,600 gallons of groundwater were removed, treated, and discharged as permitted on-site at a rate of less than 20 gallons per minute as part of the remediation of the site.

"8. As early in the process as possible, a new well will be installed on the residential property at a location which is side gradient to the existing groundwater contamination. This well will be sampled semi-annually for a period of two years. If the well remains free from contamination over this period, monitoring of the residential well will cease. If the well becomes contaminated, potable water will be provided by other means."

Comment: A new well was installed on the Lowry property in October 2000 in a location cross-gradient from the site. The new water supply well was sampled on 3 occasions: November 30, 2000, January 2, 2001, and March 14, 2001. The well was free of site-related contaminants.

"9. A written notification will be affixed to the deeds of the property comprising the Cole-Zaiser site and the adjacent property with an impacted well, at the Oswego County Recorder's Office which will prohibit the use of currently existing wells, prevent the installation of any additional potable or non-potable groundwater supply well, and the excavation of basements in the area of groundwater contamination on both properties. If an agreement cannot be reached, other means of addressing groundwater contamination will be pursued."

Comment: Deed restrictions for both the Lowe property and the Lowry property have been recorded appropriately.

"10. Periodic groundwater samples will be collected and analyzed from monitoring wells until contaminants are below groundwater standards. The site will be periodically evaluated to determine whether a change in classification on the Registry of Inactive Hazardous Waste Disposal Sites is warranted."

Comment: Groundwater samples have been collected and analyzed from 11 downgradient monitoring wells and one upgradient well on at least 11 occasions since the completion of the remediation. The results are discussed below.

GROUNDWATER CLEANUP GOALS ACHIEVED TO THE EXTENT PRACTICABLE

A total of 170 groundwater samples have been collected from nineteen wells at the site. Twelve monitoring wells presently exist at the site and these wells have been sampled from 11 to 17 times each. Nine additional wells were either destroyed or removed and replaced as part of remedial activities; these wells had been sampled at least once but in most cases three times prior to remediation.

The table below provides a history of the wells at the site, including total number of times sampled, first and last dates sampled, and whether or not the most recent sampling event in November 2009 (or July 2010 in the case of MW-10a) demonstrates that groundwater concentrations are below site cleanup goals. Table 1, attached to this letter, provides post-construction analytical results for volatile organic compounds (VOCs). Figure 1 shows the decline post-construction in total VOC concentrations in the monitoring wells. Attachments 1 and 2 provide analytical laboratory data for the past 2 sampling events (November 12, 2009 and one sample from July 15, 2010).

Concentrations of total VOCs in all monitoring wells currently installed at the site are non-detect or below detection limits.

The remediation occurred in the vicinity of MW-3 and during the remedial investigation, MW-3 was the second most highly contaminated well (next to MW-7 which was located immediately north of the former bermed area where contaminated materials were believed to have collected at times during the operation of the oil recycling facility in the 1970s). The results of monitoring at monitoring well MW-3 indicate a dramatic reduction in the concentrations of total VOCs post-construction (a reduction to less than detection limits in 2009 from 965 µg/l total VOCs in 2002 and from 8629 µg/l in 1997 prior to remediation). Thus, the removal of contaminated groundwater and the removal of contaminated soil impacting groundwater during remediation achieved the remedial action objective of attaining site-specific cleanup goals for groundwater.

Well No.	Number of Times Sampled	First Date Sampled	Last Date Sampled	Meets Site Cleanup Goals
MW-1 (upgradient)	17	7/26/1996	11/12/2009	All VOCs below detection limits
MW-2	3	7/26/1996	10/28/1997	Removed during construction-replaced by MW-8
MW-2A	1	2/7/1997	2/7/1997	Removed during construction
MW-3	16	7/26/1996	11/12/2009	Yes, VOCs below detection limits
MW-4	14	7/26/1996	11/12/2009	Yes, all VOCs below detection limits
MW-4A	13	7/26/1996	11/12/2009	Yes, all VOCs non-detect

Well No.	Number of Times Sampled	First Date Sampled	Last Date Sampled	Meets Site Cleanup Goals
MW-5	14	7/26/1996	11/12/2009	Yes, all VOCs below detection limits
MW-6	3	7/26/1996	10/28/1997	Removed during construction-replaced by MW-10
MW-6A	1	1/23/1997	1/23/1997	Removed during construction-replaced by MW-10A
MW-7	2	7/26/1996	1/23/1997	Removed during construction-replaced by MW-9
MW-7A	1	1/23/1997	1/23/1997	Removed during construction-replaced by MW-9A
MW-7B	1	1/23/1997	1/23/1997	Removed during construction
MW-8	11	7/31/2002	11/12/2009	Yes, all VOCs non-detect
MW-9	11	7/31/2002	11/12/2009	Yes, all VOCs non-detect
MW-9A	11	7/31/2002	11/12/2009	Yes, all VOCs non-detect
MW-10	11	7/31/2002	11/12/2009	Yes, all VOCs non-detect
MW-10A	15	7/31/2002	7/15/2010	Yes, VOCs below detection limits
MW-11	11	7/31/2002	11/12/2009	Yes, all VOCs non-detect
MW-12	14	7/31/2002	11/12/2009	Yes, all VOCs below detection limits

Shallow and deep groundwater flow at the site remains the same as prior to site remediation. See Figures 2 and 3 for groundwater contours showing flow direction as of June 2006.

BorgWarner has satisfied its obligation to sample for 5 years following implementation of the remedy. Groundwater cleanup goals have been met to the extent practicable. Therefore, we respectfully request:

- The state approve the closure of the site pursuant to the consent decree and a recommendation be issued to terminate the consent decree.
- The classification of the site promptly be changed from Class 2 to Class 5.

We appreciate your consideration of this request and look forward to your response.

Very truly yours,
URS CORPORATION

Leslie B. Voss, P.E., BCEE
Senior Program Manager

Attachments:

Table 1 Post-Construction Groundwater Data Summary

Figure 1 Decline in Total VOCs Post-Construction
Figure 2 Shallow Groundwater Elevations and Flow Map – June 21, 2006
Figure 3 Shallow Groundwater Elevations and Flow Map – June 21, 2006

Attachment 1 Laboratory Analytical Data November 12, 2009 Sampling Event
Attachment 2 Laboratory Analytical Data for July 15, 2010 Sampling Event (one sample)

cc: Peter Holmes, BorgWarner Inc.
Jane E. Montgomery, Schiff Hardin LLP

TABLE 1
GROUNDWATER DATA SUMMARY
COLE ZAISER SITE - WEST AMBOY, N.Y.

Constituents of Concern	NYSDEC Criteria	MW-1													
	Date Sampled	7/31/2002	11/14/2002	2/21/2003	5/15/2003	9/18/2003	7/28/2004	12/6/2004	6/30/2005	11/10/2005	6/21/2006	10/3/2007	4/8/2008	4/1/2009	11/12/2009
Tetrachloroethene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis -1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trans -1,1-Dichloroethene	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Chloride	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	-	0.8 J	-	-	-	-	-	0.65 J
Ethylbenzene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	5	-	-	-	-	-	-	-	-	-	-	-	-	-	0.41 J
Methylene Chloride	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)														-	-
MIBK	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	--	4 JB	-	-	-	-	-	-	-	-	-	4 J	-	1.6 J	-
Total VOCs		4 JB	-	-	-	-	-	-	1 J	-	-	4 J	-	1.6 J	1.06 J

Notes
All analytical results are presented in ug/l (ppb)
Bold values indicate exceedances of closure criteria
- = Not detected
-- = No criteria available
NS = Not sampled
J - Result estimated below quantitation limit
D - Concentration estimated from a dilution of the sample.
B - Compound detected in trip blank

TABLE 1
GROUNDWATER DATA SUMMARY
COLE ZAISER SITE - WEST AMBOY, N.Y.

	NYSDEC Criteria	MW-3													
Constituents of Concern	***Date Sampled***	7/31/2002	11/14/2002	2/21/2003	5/15/2003	9/18/2003	7/28/2004	12/6/2004	6/30/2005	11/10/2005	6/21/2006	10/3/2007	4/8/2008	4/1/2009	11/12/2009
Tetrachloroethene	5	**19 JD**	**25 JD**	**8 J**	**6 J**	**8 J**	2 J	NS	-	-	-	0.3 J	-	-	-
Trichloroethene	5	-	**6 JD**	1 J	-	-	-	NS	-	-	-	-	-	-	0.39 J
1,1,1-Trichloroethane	5	**23 JD**	**26 JD**	4 J	-	-	-	NS	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	5	-	-	-	-	18	3 J	NS	2.5 J	-	-	3.6 J	0.4 J	-	-
1,1-Dichloroethene	5	-	-	-	-	-	-	NS	-	-	-	-	-	-	-
cis -1,1-Dichloroethene	5	**140 D**	**210 JD**	-	-	-	-	NS	-	3 J	1 J		-	-	-
Trans -1,1-Dichloroethene	--	10 JD	12 JD	-	-	-	-	NS	-	-	-	-	-	-	-
1,1-Dichloroethane	5	**33 JD**	**31 JD**	**10 J**	**7 J**	**8 J**	2 J	NS	1 J	1 J	-	1 J	-	-	-
Vinyl Chloride	2	**740 D**	**480 JD**	**89**	**71**	**77**	**11**	NS	**5 J**	**6 J**	2 J	**7 J**	-	-	-
Benzene	0.7	-	-	-	-	-	-	NS	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	NS	-	-	-	-	-	-	-
Ethylbenzene	5	-	-	-	-	-	-	NS	-	-	-	-	-	-	-
Total Xylenes	5	-	-	-	-	-	-	NS	-	-	-	-	-	-	-
Methylene Chloride	--	-	-	-	-	-	-	NS	-	-	-	-	-	-	-
2-Butanone (MEK)													-	-	-
MIBK	--	-	-	-	-	-	-	NS	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	--	-	-	-	-	-	-	NS	-	-	-	-	-	-	-
Chlorethane	--	-	-	-	-	-	-	NS	0.6 J	-	-	-	-	-	-
Acetone	--	-	-	-	-	-	-	NS	-	1 J	-	4 J	1 J	1.7 J	2.0 J
Total VOCs		965	790	112	84	111	18	NS	9 J	11 J	3 J	16 J	1.4 J	1.7 J	2.39 J

Notes
All analytical results are presented in ug/l (ppb)
Bold values indicate exceedances of closure criteria
- = Not detected
-- = No criteria available
NS = Not sampled
J - Result estimated below quantitation limit
D - Concentration estimated from a dilution of the sa
B - Compound detected in trip blank

TABLE 1
GROUNDWATER DATA SUMMARY
COLE ZAISER SITE - WEST AMBOY, N.Y.

Constituents of Concern	NYSDEC Criteria Date Sampled	MW-4										
		7/31/2002	11/14/2002	2/21/2003	5/15/2003	9/18/2003	7/28/2004	12/6/2004	6/30/2005	11/10/2005	6/21/2006	11/12/2009
Tetrachloroethene	5	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	5	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	5	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	5	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-
cis -1,1-Dichloroethene	5	1 J	-	-	-	-	-	-	-	-	-	-
Trans -1,1-Dichloroethene	--	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	-	-	-	-	-	-	-	-	-	-	-
Vinyl Chloride	2	3 J	-	-	-	-	-	-	-	-	-	-
Benzene	0.7	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	-	-	-	-	0.34 J
Ethylbenzene	5	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	5	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	--	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)												
MIBK	--	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	--	-	-	-	-	-	-	-	-	-	-	-
Chlorethane	--	-	-	-	-	-	-	-	-	-	-	-
Acetone	--	--	-	10	6 J	-	-	-	-	3 J	-	8.9 J
Total VOCs		4 J	-	10	6 J	-	-	-	-	3 J	-	9.24 J

Notes
All analytical results are presented in ug/l (ppb)
Bold values indicate exceedances of closure criteria
- = Not detected
-- = No criteria available
NS = Not sampled
J - Result estimated below quantitation limit
D - Concentration estimated from a dilution of the sa
B - Compound detected in trip blank

TABLE 1
GROUNDWATER DATA SUMMARY
COLE ZAISER SITE - WEST AMBOY, N.Y.

	NYSDEC Criteria	MW-4A										
Constituents of Concern	***Date Sampled***	7/31/2002	11/14/2002	2/21/2003	5/15/2003	9/18/2003	7/28/2004	12/6/2004	6/30/2005	11/10/2005	6/21/2006	11/12/2009
Tetrachloroethene	5	-	-	-	-	-	-	-	-	-	0.6 J	-
Trichloroethene	5	-	-	-	-	-	-	-	0.8 J	-	0.7 J	-
1,1,1-Trichloroethane	5	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	5	-	-	-	-	-	-	-	0.6 J	-	-	-
1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-
cis -1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-
Trans -1,1-Dichloroethene	--	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	-	-	-	-	-	-	-	-	-	-	-
Vinyl Chloride	2	-	-	-	-	-	-	-	-	-	-	-
Benzene	0.7	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	5	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	5	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	--	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)												
MIBK	--	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	--	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	--	-	-	-	-	-	-	-	-	-	-	-
Acetone	--	4 JB	-	-	-	-	-	-	5 J	3 J	3 J	2.6 J
Total VOCs		4 JB	-	-	-	-	-	-	6 J	3 J	4.3 J	2.6 J

Notes
All analytical results are presented in ug/l (ppb)
Bold values indicate exceedances of closure criteria
- = Not detected
-- = No criteria available
NS = Not sampled
J - Result estimated below quantitation limit
D - Concentration estimated from a dilution of the sa
B - Compound detected in trip blank

TABLE 1
GROUNDWATER DATA SUMMARY
COLE ZAISER SITE - WEST AMBOY, N.Y.

Constituents of Concern	NYSDEC Criteria	MW-5										
	Date Sampled	7/31/2002	11/14/2002	2/21/2003	5/15/2003	9/18/2003	7/28/2004	12/6/2004	6/30/2005	11/10/2005	6/21/2006	11/12/2009
Tetrachloroethene	5	-	-	-	-	-	-	-	-	-	-	0.53 J
Trichloroethene	5	-	-	-	-	-	-	-	-	-	-	0.31 J
1,1,1-Trichloroethane	5	**18**	**6 J**	-	-	**31**	2 J	-	-	3 J	-	-
1,2-Dichloroethene (total)	5	-	-	-	-	5 J	-	-	-	-	-	-
1,1-Dichloroethene	5	-	-	-	-	**32**	-	-	-	-	-	-
cis -1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-
Trans -1,1-Dichloroethene	--	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	**12**	4 J	-	-	-	2 J	-	-	4 J	-	-
Vinyl Chloride	2	2 J	-	-	-	4 J	-	-	-	-	-	-
Benzene	0.7	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	5	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	5	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	--	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)												
MIBK	--	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	--	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	--	-	-	-	-	-	-	-	-	-	-	-
Acetone	--	5 JB	-	-	-	-	-	-	-	-	-	-
Total VOCs		37	10 J	-	-	72	4 J	-	-	7 J	-	0.84 J

Notes
All analytical results are presented in ug/l (ppb)
Bold values indicate exceedances of closure criteria
- = Not detected
-- = No criteria available
NS = Not sampled
J - Result estimated below quantitation limit
D - Concentration estimated from a dilution of the sa
B - Compound detected in trip blank

TABLE 1
GROUNDWATER DATA SUMMARY
COLE ZAISER SITE - WEST AMBOY, N.Y.

Constituents of Concern	NYSDEC Criteria Date Sampled	MW-8 7/31/2002	11/14/2002	2/21/2003	5/15/2003	9/18/2003	7/28/2004	12/6/2004	6/30/2005	11/10/2005	6/21/2006	11/12/2009
Tetrachloroethene	5	1 J	-	-	-	-	-	-	-	-	-	-
Trichloroethene	5	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	5	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	5	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-
cis -1,1-Dichloroethene	5	2 J	1 J	-	-	-	-	-	-	-	-	-
Trans -1,1-Dichloroethene	--	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	-	-	-	-	-	-	-	-	-	-	-
Vinyl Chloride	2	-	-	-	-	-	-	-	-	-	-	-
Benzene	0.7	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	5	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	5	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	--	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)												
MIBK	--	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	--	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	--	-	-	-	-	-	-	-	-	-	-	-
Acetone	--	7 JB	4 J	-	-	-	-	-	3 J	2 J	-	2.3 J
Total VOCs		10 J	5 J	-	-	-	-	-	3 J	2 J	-	2.3 J

Notes
All analytical results are presented in ug/l (ppb)
Bold values indicate exceedances of closure criteria
- = Not detected
-- = No criteria available
NS = Not sampled
J - Result estimated below quantitation limit
D - Concentration estimated from a dilution of the sa
B - Compound detected in trip blank

TABLE 1
GROUNDWATER DATA SUMMARY
COLE ZAISER SITE - WEST AMBOY, N.Y.

Constituents of Concern	NYSDEC Criteria	MW-9										
	Date Sampled	7/31/2002	11/14/2002	2/21/2003	5/15/2003	9/18/2003	7/28/2004	12/6/2004	6/30/2005	11/10/2005	6/21/2006	11/12/2009
Tetrachloroethene	5	-	1 J	-	-	-	-	-	-	-	-	-
Trichloroethene	5	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	5	-	2 J	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	5	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-
cis -1,1-Dichloroethene	5	-	5 J	-	-	-	-	-	-	-	-	-
Trans -1,1-Dichloroethene	--	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	-	6 J	-	-	-	-	-	-	-	-	-
Vinyl Chloride	2	-	-	-	-	-	-	-	-	-	-	-
Benzene	0.7	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	5	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	5	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	--	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)												
MIBK	--	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	--	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	--	-	-	-	-	-	-	-	-	-	-	-
Acetone	--	5 JB	-	-	-	-	-	-	-	-	-	-
Total VOCs		5 JB	14 J	-	-	-	-	-	-	-	-	-

Notes
All analytical results are presented in ug/l (ppb)
Bold values indicate exceedances of closure criteria
- = Not detected
-- = No criteria available
NS = Not sampled
J - Result estimated below quantitation limit
D - Concentration estimated from a dilution of the sa
B - Compound detected in trip blank

TABLE 1
GROUNDWATER DATA SUMMARY
COLE ZAISER SITE - WEST AMBOY, N.Y.

	NYSDEC Criteria	MW-9A										
Constituents of Concern	***Date Sampled***	7/31/2002	11/14/2002	2/21/2003	5/15/2003	9/18/2003	7/28/2004	12/6/2004	6/30/2005	11/10/2005	6/21/2006	11/12/2009
Tetrachloroethene	5	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	5	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	5	26	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	5	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-
cis -1,1-Dichloroethene	5	11	-	-	-	-	-	-	-	1 J	-	-
Trans -1,1-Dichloroethene	--	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	4 J	-	-	-	-	-	-	-	1 J	-	-
Vinyl Chloride	2	2 J	-	-	-	-	-	-	-	0.9 J	-	-
Benzene	0.7	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	5	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	5	3 J	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	--	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)												
MIBK	--	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	--	-	-	-	-	-	-	-	-	-	-	-
Chlorethane	--	-	-	-	-	-	-	-	-	2 J	-	-
Acetone	--	7 J	3 J	-	-	-	-	2 J	-	2 J	-	2.4 J
Total VOCs		53	3 J	-	-	-	-	2 J	-	7 J	-	2.4 J

Notes
All analytical results are presented in ug/l (ppb)
Bold values indicate exceedances of closure criteria
- = Not detected
-- = No criteria available
NS = Not sampled
J - Result estimated below quantitation limit
D - Concentration estimated from a dilution of the sa
B - Compound detected in trip blank

TABLE 1
GROUNDWATER DATA SUMMARY
COLE ZAISER SITE - WEST AMBOY, N.Y.

	NYSDEC Criteria	MW-10										
Constituents of Concern	***Date Sampled***	7/31/2002	11/14/2002	2/21/2003	5/15/2003	9/18/2003	7/28/2004	12/6/2004	6/30/2005	11/10/2005	6/21/2006	11/12/2009
Tetrachloroethene	5	2 J	**5 J**	-	-	4 J	-	-	-	-	-	-
Trichloroethene	5	-	2 J	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	5	**14**	**13**	-	-	**13**	-	-	-	-	-	-
1,2-Dichloroethene (total)	5	-	-	-	-	5 J	-	-	-	-	-	-
1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-
cis -1,1-Dichloroethene	5	3 J	**10**	-	-	-	-	-	-	-	-	-
Trans -1,1-Dichloroethene	--	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	**9 J**	**19**	-	-	**11**	-	-	-	-	-	-
Vinyl Chloride	2	**6 J**	**13**	-	-	-	-	-	-	-	-	-
Benzene	0.7	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	5	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	5	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	--	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)												
MIBK	--	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	--	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	--	-	-	-	-	-	-	-	-	-	-	-
Acetone	--	4 J	-	-	-	-	-	-	-	2 J	-	1.5 J
Total VOCs		38	62	-	-	33	-	-	-	2 J	-	1.5 J

Notes
All analytical results are presented in ug/l (ppb)
Bold values indicate exceedances of closure criteria
- = Not detected
-- = No criteria available
NS = Not sampled
J - Result estimated below quantitation limit
D - Concentration estimated from a dilution of the sa
B - Compound detected in trip blank

TABLE 1
GROUNDWATER DATA SUMMARY
COLE ZAISER SITE - WEST AMBOY, N.Y.

	NYSDEC Criteria	MW-10A														
Constituents of Concern	*Date Sampled*	7/31/2002	11/14/2002	2/21/2003	5/15/2003	9/18/2003	7/28/2004	12/6/2004	6/30/2005	11/10/2005	6/21/2006	10/3/2007	4/8/2008	4/1/2009	11/12/2009	7/15/2010
Tetrachloroethene	5	-	-	-	-	-	2	4 J	-	3 J	1 J	2 J	0.7 J	0.61 J	2.3 J	1.4 J
Trichloroethene	5	-	-	-	-	-	**53**	2 J	-	1 J	0.6 J	2 J	-	-	1.5 J	0.67 J
1,1,1-Trichloroethane	5	-	-	-	-	-	-	**37**	**20**	**31**	**12**	4 J	0.9 J	-	2.1 J	1.7 J
1,2-Dichloroethene (total)	5	-	-	-	-	-	2 J	4 J	2 J	-	-	-	-	-	1.6 J	0.78 J
1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	**17**	-	2 J	-	-	-
cis -1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	0.6 J	2 J	-	-	-	-
Trans -1,1-Dichloroethene	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	-	-	-	-	-	**69**	**72**	**35**	**99**	**17**	**17**	-	-	**9.0 J**	4.9 J
Vinyl Chloride	2	-	-	-	-	-	-	-	-	-	-	0.5 J	-	-	-	-
Benzene	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)													-	-	-	-
MIBK	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	--	-	-	-	-	-	-	-	-	1 J	-	4 J	-	1.9 J	-	4.2 J
Total VOCs		-	-	-	-	-	**126**	**119**	**57**	**135**	**48**	**32**	**3.6 J**	**2.51 J**	**16.5 J**	**13.7 J**

Notes
All analytical results are presented in ug/l (ppb)
Bold values indicate exceedances of closure criteria
- = Not detected
-- = No criteria available
NS = Not sampled
J - Result estimated below quantitation limit
D - Concentration estimated from a dilution of the sa
B - Compound detected in trip blank

TABLE 1
GROUNDWATER DATA SUMMARY
COLE ZAISER SITE - WEST AMBOY, N.Y.

Constituents of Concern	NYSDEC Criteria	MW-11										
	Date Sampled	7/31/2002	11/14/2002	2/21/2003	5/15/2003	9/18/2003	7/28/2004	12/6/2004	6/30/2005	11/10/2005	6/21/2006	11/12/2009
Tetrachloroethene	5	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	5	-	-	-	-	-	-	-	0.8 J	-	-	-
1,1,1-Trichloroethane	5	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	5	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-
cis -1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-
Trans -1,1-Dichloroethene	--	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	-	-	-	-	-	-	-	-	-	-	-
Vinyl Chloride	2	-	-	-	-	-	-	-	-	-	-	-
Benzene	0.7	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	5	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	5	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	--	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)												
MIBK	--	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	--	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	--	-	-	-	-	-	-	-	-	-	-	-
Acetone	--	-	-	-	-	-	-	-	-	-	-	-
Total VOCs		-	-	-	-	-	-	-	1 J	-	-	-

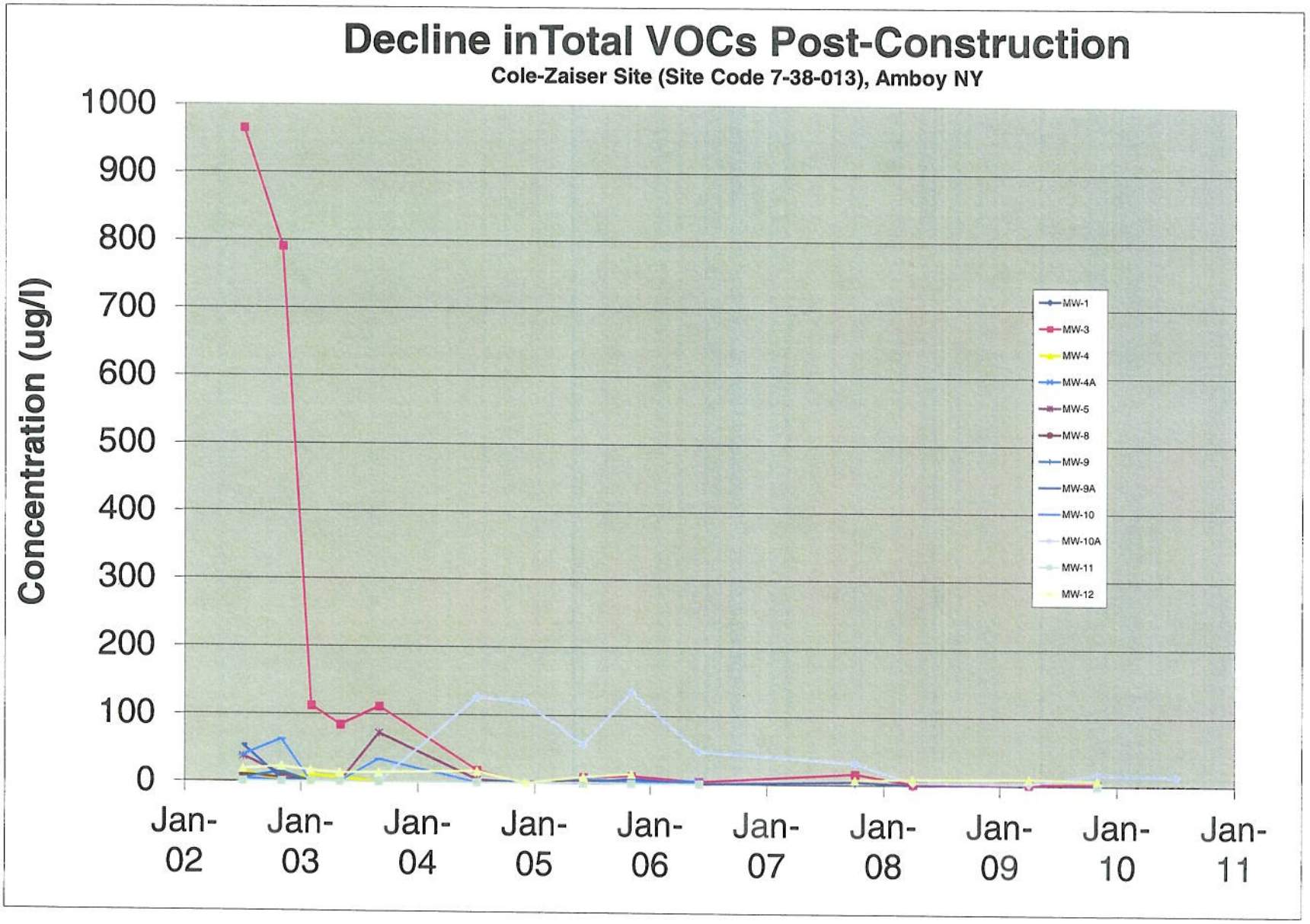
Notes
All analytical results are presented in ug/l (ppb)
Bold values indicate exceedances of closure criteria
- = Not detected
-- = No criteria available
NS = Not sampled
J - Result estimated below quantitation limit
D - Concentration estimated from a dilution of the sa
B - Compound detected in trip blank

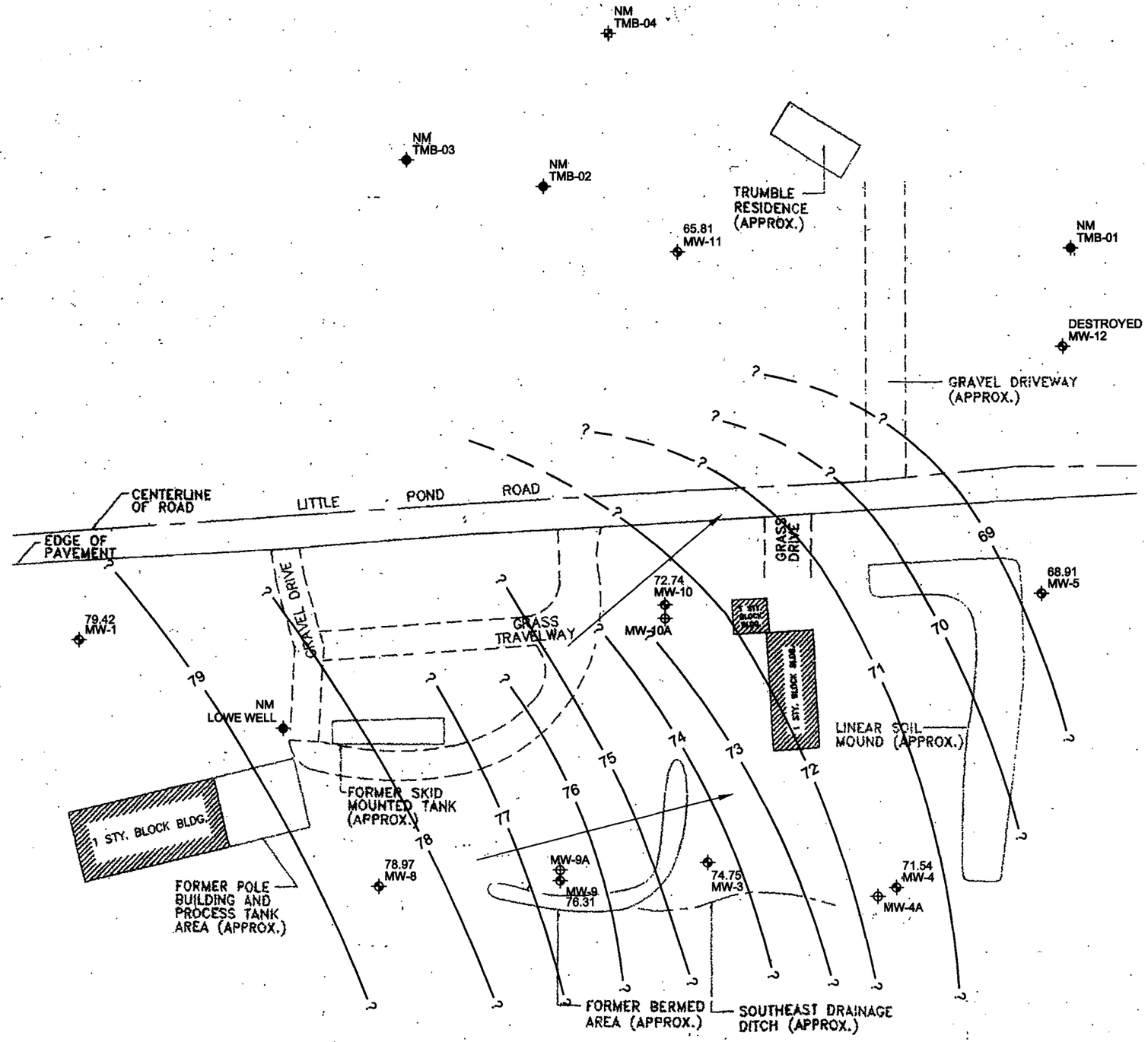
TABLE 1
GROUNDWATER DATA SUMMARY
COLE ZAISER SITE - WEST AMBOY, N.Y.

	NYSDEC Criteria	MW-12													
Constituents of Concern	*Date Sampled*	7/31/2002	11/14/2002	2/21/2003	5/15/2003	9/18/2003	7/28/2004	12/6/2004	6/30/2005	11/10/2005	6/21/2006	10/3/2007	4/8/2008	4/1/2009	11/12/2009
Tetrachloroethene	5	**5 J**	**4 J**	**3 J**	**4 J**	**5 J**	**3 J**	**3 J**	**3 J**	**3 J**	-	**1 J**	**2 J**	2.4 J	1.8 J
Trichloroethene	5	**6 J**	**13**	**11**	**9 J**	**9 J**	**11**	**9 J**	**5 J**	**10**	-	0.8 J	**6 J**	5.4 J	4.3 J
1,1,1-Trichloroethane	5	**3 J**	**3 J**	**2 J**	-	-	**3 J**	**2 J**	**1 J**	**1 J**	-	-	0.7 J	0.49 J	0.48 J
1,2-Dichloroethene (total)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis -1,1-Dichloroethene	5	-	**2 J**	-	-	-	-	-	-	-	-	-	-	-	-
Trans -1,1-Dichloroethene	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Chloride	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	-	0.5 J	-	-	-	-	-	-
Ethylbenzene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)												2 J	-	-	-
MIBK	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorethane	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	--	4 JB	-	-	-	-	-	-	-	-	-	3 J	-	1.7 J	1.3 J
Total VOCs		18	22	16	13 J	14 J	17	14 J	9 J	14	-	7 J	8.7 J	10 J	7.88 J

Notes
All analytical results are presented in ug/l (ppb)
Bold values indicate exceedances of closure criteria
- = Not detected
-- = No criteria available
NS = Not sampled
J - Result estimated below quantitation limit
D - Concentration estimated from a dilution of the sa
B - Compound detected in trip blank

Figure 1


Decline inTotal VOCs Post-Construction
Cole-Zaiser Site (Site Code 7-38-013), Amboy NY
Concentration (ug/l)
1000
900
800
700
600
500
400
300
200
100
0
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
MW-1
MW-3
MW-4
MW-4A
MW-5
MW-8
MW-9
MW-9A
MW-10
MW-10A
MW-11
MW-12



LEGEND

- MW-1 — EXISTING SHALLOW MONITORING WELL
- MW-2A — EXISTING INTERMEDIATE / DEEP MONITORING WELL
- TMB-01 — OUT OF SERVICE RESIDENTIAL WELLS
- TMB-04 — RESIDENTIAL WATER SUPPLY WELL

NOTES:

1. ELEVATIONS REFERENCED TO FINAL AS-BUILT SURVEY OF COLE-ZAISER SITE DATED AUGUST 6, 2001.
2. NM= NOT MEASURED

N

40 0 40

SCALE IN FEET

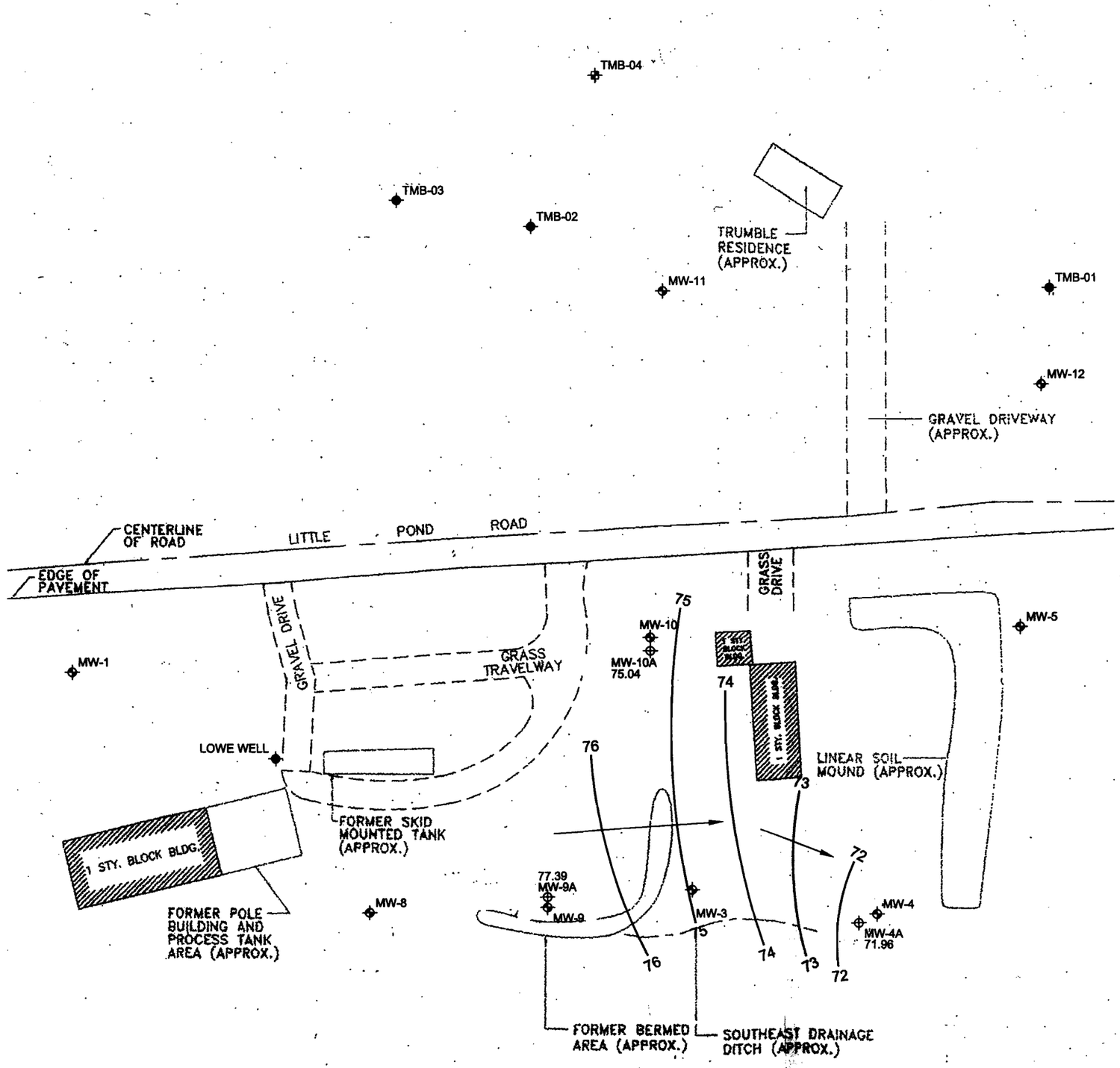
URS 10975 El Monte, Suite 100 Overland Park, Kansas 66211

CLIENT: BORG–WARNER AUTOMOTIVE, INC.

LOCATION: COLE–ZAISER SITE, AMBOY, NEW YORK

TITLE: **SHALLOW GROUNDWATER ELEVATIONS AND FLOW MAP JUNE 21, 2006**

DRAWN BY	CHK'D. BY	APPROVED BY
TMS	LBV	LBV
PROJ. NO.	DATE	DWG. NO.
16529746	JULY 2005	2



LEGEND

- MW-1 — EXISTING SHALLOW MONITORING WELL
- MW-2A — EXISTING INTERMEDIATE / DEEP MONITORING WELL
- TMB-01 — OUT OF SERVICE RESIDENTIAL WELLS
- TMB-04 — RESIDENTIAL WATER SUPPLY WELL

NOTES:

1. ELEVATIONS REFERENCED TO FINAL AS-BUILT SURVEY OF COLE-ZAISER SITE DATED AUGUST 6, 2001.
2. NM= NOT MEASURED

N

40 0 40

SCALE IN FEET

URS
10975 El Monte, Suite 100
Overland Park, Kansas 66211

CLIENT: BORG-WARNER AUTOMOTIVE, INC.

LOCATION: COLE-ZAISER SITE, AMBOY, NEW YORK

TITLE: **DEEP GROUNDWATER ELEVATION AND FLOW MAP JUNE 21, 2006**

DRAWN BY	CHK'D. BY	APPROVED BY
TMS	LBV	LBV
PROJ. NO. 16529746	DATE JULY 2005	DWG. NO. 3

Columbia Analytical Services™ 1 Mustard Street, Suite 250, Rochester, NY 14609-6925 | 585.288.5380 | www.caslab.com

December 21, 2009 Service Request No: R0906509

Leslie Voss
URS Corporation
8300 College Blvd.
Suite 200
Overland Park, KS 66210

Laboratory Results for: Cole-Zaiser Site/16530332.00500

Dear Leslie:

Enclosed are the results of the sample(s) submitted to our laboratory on November 13, 2009. For your reference, these analyses have been assigned our service request number **R0906509**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 129. You may also contact me via email at MPerry@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Michael Perry
Laboratory Manager

CASE NARRATIVE

COMPANY: URS Corp.
PROJECT: Cole Zaiser
SUBMISSION #: R0906509

URS water samples were collected on 11/12/09 and received at CAS on 11/13/09 in good condition at a cooler temperature of 3 °C. See the CLP Batching Form for sample ID cross-references. An ASP-B validation type data package has been provided.

VOLATILE ORGANICS

Fourteen water samples and a Trip Blank were analyzed for the Target Compound List (TCL) of Volatile Organics by NYSASP Method OLM4.3. Library Searches against the NBS/EPA library were conducted on all samples. The 30 largest peaks within 10 % of the nearest Internal Standard were searched. A summary of detected peaks is included following the Target data. Any analyte detected was quantitated based on the closest internal standard and has been flagged with a "J" as estimated.

All Tuning criteria for BFB were within limits.

The initial and continuing calibration criteria for the method were met.

All internal standard areas were within QC limits.

All sample surrogate recoveries were within QC limits for recovery.

Sample MW-10A was requested to be analyzed for site specific QC, but due to a misinterpretation of the COC, it was only analyzed as a sample duplicate.

All Blank Spike (LCS) recoveries were within QC limits.

No other analytical or QC problems were encountered with these analyses.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package, has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Michael K. Perry
Laboratory Manager

12/21/09
Date

CAS ASP/CLP Batching Form/Login Sheet

Client Proj #: 16530332.00500	Batch Complete: Yes	Date Revised:
Submission: R0906509	Diskette Requested: No	Date Due: 12/7/09
Client: URS Corporation	Date: 12/21/09	Protocol: CLP
Client Rep: MPERRY	Custody Seal: Present/Absent:	Shipping No.:
Project: Cole-Zaiser Site	Chain of Custody: Present/Absent:	SDG #: MW01

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R0906509-001	MW01-1109-01	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			
R0906509-002	MW03-1109-01	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			
R0906509-003	MW04-1109-01	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			
R0906509-004	MW04A-1109-01	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			
R0906509-005	MW05-1109-01	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			
R0906509-006	MW08-1109-01	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			
R0906509-007	MW09-1109-01	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			
R0906509-008	MW09A-1109-01	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			
R0906509-009	MW10-1109-01	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			
R0906509-010	MW10A-1109-01	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			
R0906509-011	MW10AMS-1109-03	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			
R0906509-012	MW10ASD-1109-03	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			
R0906509-013	MW11-1109-01	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			
R0906509-014	MW12-1109-01	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			
R0906509-015	TRIP BLANK	Water	CLP-VOA OLM04.3	11/12/09	11/13/09			

Folder Comments:

Columbia Analytical Services™

REPORT QUALIFIERS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Pesticide/Aroclors: Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.

CAS/Rochester Lab ID # for State Certifications[1]

NELAP Accredited
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Nebraska Accredited
Navy Facilities Engineering Service Center Approved
Nevada ID # NY-00032
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
Pennsylvania ID# 68-786
Rhode Island ID # 158
West Virginia ID # 292

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at www.caslab.com.

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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www.caslab.com

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (585) 288-5380 • 800-695-7222 x11 • FAX (585) 288-8475 PAGE 1 OF 2

SR #

CAS Contact

Project Name: Cole Zaiser Site	Project Number: 16530332.00500
Project Manager: Leslie Voss	Report CC: Leslie Voss
Company/Address: URS Corporation 8300 College Blvd, Suite 200 Overland Park KS 66210	
Phone #: (913) 344-1040	FAX#: (913) 344-1011
Sampler's Signature	Sampler's Printed Name: Scott W. McCune

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ CLP	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608 ☐ CLP	PCB's ☐ 8082 ☐ 608 ☐ CLP	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Site Specific VOCs Method Mod 95-1							REMARKS/ ALTERNATE DESCRIPTION
MW01-1109-01		11/12/09	0925	WG	3								3							
MW03-1109-01		11/12/09	1205	WG	3								3							
MW04-1109-01		11/12/09	1235	WG	3								3							
MW04A-1109-01		11/12/09	1305	WG	3								3							
MW05-1109-01		11/12/09	1445	WG	3								3							
MW08-1109-01		11/12/09	1000	WG	3								3							
MW09-1109-01		11/12/09	1055	WG	3								3							
MW09A-1109-01		11/12/09	1125	WG	3								3							
MW10-1109-01		11/12/09	1410	WG	3								3							
MW10A-1109-01		11/12/09	1340	WG	3								3							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 24 hr ____ 48 hr ____ 5 day
X STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO# 16530332
BILL TO: URS Corporation
8300 College Blvd
Overland Park KS
SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: 5C CUSTODY SEALS: Y N

COOLER

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: Scott W. McCune	Printed Name: Gregory A. Esmenian	Printed Name	Printed Name	Printed Name	Printed Name
Firm: URS Corporation	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11/13/09 0830	Date/Time: 11-13-09 0830	Date/Time	Date/Time	Date/Time	Date/Time

R0906509
URS Corporation
Cole-Zaiser Site

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-1102-08

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PAGE 2 OF 2

SR #

CAS Contact

Project Name: COLE ZAUGER SITE	Project Number: 16530332.00500
Project Manager: LESLIE VOSS	Report CC: LESLIE VOSS
Company/Address: URS CORPORATION 8300 COLLEGE BLVD, SUITE 200 OVERLAND PARK KS 66210	
Phone #: (913) 344-1040	FAX#: (913) 344-1011
Sampler's Signature:	Sampler's Printed Name: SCOTT W. McCONE

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GCMS VOA's ☐ 8260 ☐ 624 ☐ CLP	GCMS SVOA's ☐ 8270 ☐ 625 ☐ CLP	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608 ☐ CLP	PCB's ☐ 8082 ☐ 608 ☐ CLP	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	SITE SPECIFIC VOCs METHOD ASP 95-1								REMARKS/ ALTERNATE DESCRIPTION
MW10MS-1109-03		11/12/09	1340	WG	3								3								
MW10SD-1109-03		11/12/09	1340	WG	3								3								
MW11-1109-01		11/12/09	1565	WG	3								3								
MW12-1109-01		11/12/09	1520	WG	3								3								

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
____ 24 hr ____ 48 hr ____ 5 day
__X__ STANDARD
REQUESTED FAX DATE
_____
REQUESTED REPORT DATE
_____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO# 16530332
BILL TO: URS CORPORATION
8300 COLLEGE BLVD
OVERLAND PARK KS
SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: SCOTT W. McCONE	Printed Name: GREGORY O. ESMENIAN	Printed Name	Printed Name	Printed Name	Printed Name
Firm: URS CORPORATION	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11/13/09 0830	Date/Time: 11-13-09 0930	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

Cooler Receipt And Preservation Check Form

Project/Client URS Submission Number R09-6509

Cooler received on 11/13/09 by: BD **COURIER:** CAS UPS FEDEX VELOCITY (CLIENT)

1.	Were custody seals on outside of cooler?			YES	(NO)	
2.	Were custody papers properly filled out (ink, signed, etc.)?			(YES)	NO	
3.	Did all bottles arrive in good condition (unbroken)?			(YES)	NO	
4.	Did any VOA vials have significant* air bubbles?			YES	(NO)	N/A
5.	Were **Ice** or **Ice packs** present?			(YES)	NO	
6.	Where did the bottles originate?			(CAS/ROC)	CLIENT	
7.	Temperature of cooler(s) upon receipt:	3°				
	Is the temperature within 0° - 6° C?:	(Yes)	Yes	Yes	Yes	Yes
	If No, Explain Below	No	No	No	No	No

Date/Time Temperatures Taken: 11/13/09 0840

Thermometer ID: 161 / IR GUN#2 / (IR GUN#3) Reading From: (Temp Blank) / Sample Bottle

If out of Temperature, note packing/ice condition, Client Approval to Run Samples: _____

PC Secondary Review: MMP 11/13/09

Cooler Breakdown: Date: 11/13/09 by: BD

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	YES	NO
2.	Did all bottle labels and tags agree with custody papers?	YES	NO
3.	Were correct containers used for the tests indicated?	YES	NO
4.	Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated		N/A.

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp
≥12	NaOH				
≤2	HNO_3				
≤2	H_2SO_4				
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid	
	$Na_2S_2O_3$	-	-		
	Zn Aceta	-	-		
	HCl	*	*	H021401	10/10

Sample ID	Vol. Added	Lot Added	Final pH

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 9-202-002

Other Comments:

PC Secondary Review: _____

*significant air bubbles are greater than 5-6 mm

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 0925
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW01-1109-01	**Units:**	µg/L
Lab Code:	R0906509-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	10	U	10	0.28	1	NA	11/17/09 03:54		179646	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/17/09 03:54		179646	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/17/09 03:54		179646	
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.17	1	NA	11/17/09 03:54		179646	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/17/09 03:54		179646	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/17/09 03:54		179646	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/17/09 03:54		179646	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/17/09 03:54		179646	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/17/09 03:54		179646	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/17/09 03:54		179646	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/17/09 03:54		179646	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/17/09 03:54		179646	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/17/09 03:54		179646	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/17/09 03:54		179646	
2-Hexanone	10	U	10	0.59	1	NA	11/17/09 03:54		179646	
Acetone	10	U	10	1.3	1	NA	11/17/09 03:54		179646	
Benzene	10	U	10	0.20	1	NA	11/17/09 03:54		179646	
Bromodichloromethane	10	U	10	0.16	1	NA	11/17/09 03:54		179646	
Bromoform	10	U	10	0.42	1	NA	11/17/09 03:54		179646	
Bromomethane	10	U	10	0.53	1	NA	11/17/09 03:54		179646	
Carbon Disulfide	10	U	10	0.28	1	NA	11/17/09 03:54		179646	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/17/09 03:54		179646	
Chlorobenzene	10	U	10	0.24	1	NA	11/17/09 03:54		179646	
Chloroethane	10	U	10	0.36	1	NA	11/17/09 03:54		179646	
Chloroform	10	U	10	0.16	1	NA	11/17/09 03:54		179646	
Chloromethane	10	U	10	0.39	1	NA	11/17/09 03:54		179646	
Cyclohexane	10	U	10	0.22	1	NA	11/17/09 03:54		179646	
Dibromochloromethane	10	U	10	0.17	1	NA	11/17/09 03:54		179646	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/17/09 03:54		179646	
Dichloromethane	10	U	10	0.22	1	NA	11/17/09 03:54		179646	
Ethylbenzene	10	U	10	0.21	1	NA	11/17/09 03:54		179646	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/17/09 03:54		179646	
Methyl Acetate	10	U	10	0.36	1	NA	11/17/09 03:54		179646	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 0925
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW01-1109-01	**Units:**	µg/L
Lab Code:	R0906509-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/17/09 03:54		179646	
Methylcyclohexane	10	U	10	0.33	1	NA	11/17/09 03:54		179646	
Styrene	10	U	10	0.18	1	NA	11/17/09 03:54		179646	
Tetrachloroethene (PCE)	10	U	10	0.22	1	NA	11/17/09 03:54		179646	
Toluene	**0.65**	J	10	0.27	1	NA	11/17/09 03:54		179646	
Trichloroethene (TCE)	10	U	10	0.28	1	NA	11/17/09 03:54		179646	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/17/09 03:54		179646	
Vinyl Chloride	10	U	10	0.30	1	NA	11/17/09 03:54		179646	
cis-1,2-Dichloroethene	10	U	10	0.21	1	NA	11/17/09 03:54		179646	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/17/09 03:54		179646	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/17/09 03:54		179646	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/17/09 03:54		179646	
o-Xylene	10	U	10	0.17	1	NA	11/17/09 03:54		179646	
m,p-Xylenes	**0.41**	J	10	0.29	1	NA	11/17/09 03:54		179646	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/17/09 03:54		179646	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/17/09 03:54		179646	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	102	76-114	11/17/09 03:54		
4-Bromofluorobenzene	95	86-115	11/17/09 03:54		
Toluene-d8	99	88-110	11/17/09 03:54		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/17/09 0354

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	MW01-1109-01	**Units:**	µg/L
Lab Code:	R0906509-001	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1205
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW03-1109-01	**Units:**	µg/L
Lab Code:	R0906509-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	10	U	10	0.28	1	NA	11/17/09 04:22		179646	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/17/09 04:22		179646	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/17/09 04:22		179646	
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.17	1	NA	11/17/09 04:22		179646	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/17/09 04:22		179646	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/17/09 04:22		179646	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/17/09 04:22		179646	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/17/09 04:22		179646	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/17/09 04:22		179646	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/17/09 04:22		179646	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/17/09 04:22		179646	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/17/09 04:22		179646	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/17/09 04:22		179646	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/17/09 04:22		179646	
2-Hexanone	10	U	10	0.59	1	NA	11/17/09 04:22		179646	
Acetone	2.0	J	10	1.3	1	NA	11/17/09 04:22		179646	
Benzene	10	U	10	0.20	1	NA	11/17/09 04:22		179646	
Bromodichloromethane	10	U	10	0.16	1	NA	11/17/09 04:22		179646	
Bromoform	10	U	10	0.42	1	NA	11/17/09 04:22		179646	
Bromomethane	10	U	10	0.53	1	NA	11/17/09 04:22		179646	
Carbon Disulfide	10	U	10	0.28	1	NA	11/17/09 04:22		179646	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/17/09 04:22		179646	
Chlorobenzene	10	U	10	0.24	1	NA	11/17/09 04:22		179646	
Chloroethane	10	U	10	0.36	1	NA	11/17/09 04:22		179646	
Chloroform	10	U	10	0.16	1	NA	11/17/09 04:22		179646	
Chloromethane	10	U	10	0.39	1	NA	11/17/09 04:22		179646	
Cyclohexane	10	U	10	0.22	1	NA	11/17/09 04:22		179646	
Dibromochloromethane	10	U	10	0.17	1	NA	11/17/09 04:22		179646	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/17/09 04:22		179646	
Dichloromethane	10	U	10	0.22	1	NA	11/17/09 04:22		179646	
Ethylbenzene	10	U	10	0.21	1	NA	11/17/09 04:22		179646	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/17/09 04:22		179646	
Methyl Acetate	10	U	10	0.36	1	NA	11/17/09 04:22		179646	

Comments:

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1205
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW03-1109-01	**Units:**	µg/L
Lab Code:	R0906509-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/17/09 04:22		179646	
Methylcyclohexane	10	U	10	0.33	1	NA	11/17/09 04:22		179646	
Styrene	10	U	10	0.18	1	NA	11/17/09 04:22		179646	
Tetrachloroethene (PCE)	10	U	10	0.22	1	NA	11/17/09 04:22		179646	
Toluene	10	U	10	0.27	1	NA	11/17/09 04:22		179646	
Trichloroethene (TCE)	0.39	J	10	0.28	1	NA	11/17/09 04:22		179646	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/17/09 04:22		179646	
Vinyl Chloride	10	U	10	0.30	1	NA	11/17/09 04:22		179646	
cis-1,2-Dichloroethene	10	U	10	0.21	1	NA	11/17/09 04:22		179646	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/17/09 04:22		179646	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/17/09 04:22		179646	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/17/09 04:22		179646	
o-Xylene	10	U	10	0.17	1	NA	11/17/09 04:22		179646	
m,p-Xylenes	10	U	10	0.29	1	NA	11/17/09 04:22		179646	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/17/09 04:22		179646	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/17/09 04:22		179646	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	100	76-114	11/17/09 04:22		
4-Bromofluorobenzene	93	86-115	11/17/09 04:22		
Toluene-d8	101	88-110	11/17/09 04:22		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/17/09 0422

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	MW03-1109-01	**Units:**	µg/L
Lab Code:	R0906509-002	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1235
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW04-1109-01	**Units:**	µg/L
Lab Code:	R0906509-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	10	U	10	0.28	1	NA	11/17/09 04:50		179646	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/17/09 04:50		179646	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/17/09 04:50		179646	
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.17	1	NA	11/17/09 04:50		179646	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/17/09 04:50		179646	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/17/09 04:50		179646	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/17/09 04:50		179646	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/17/09 04:50		179646	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/17/09 04:50		179646	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/17/09 04:50		179646	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/17/09 04:50		179646	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/17/09 04:50		179646	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/17/09 04:50		179646	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/17/09 04:50		179646	
2-Hexanone	10	U	10	0.59	1	NA	11/17/09 04:50		179646	
Acetone	**8.9**	J	10	1.3	1	NA	11/17/09 04:50		179646	
Benzene	10	U	10	0.20	1	NA	11/17/09 04:50		179646	
Bromodichloromethane	10	U	10	0.16	1	NA	11/17/09 04:50		179646	
Bromoform	10	U	10	0.42	1	NA	11/17/09 04:50		179646	
Bromomethane	10	U	10	0.53	1	NA	11/17/09 04:50		179646	
Carbon Disulfide	10	U	10	0.28	1	NA	11/17/09 04:50		179646	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/17/09 04:50		179646	
Chlorobenzene	10	U	10	0.24	1	NA	11/17/09 04:50		179646	
Chloroethane	10	U	10	0.36	1	NA	11/17/09 04:50		179646	
Chloroform	10	U	10	0.16	1	NA	11/17/09 04:50		179646	
Chloromethane	10	U	10	0.39	1	NA	11/17/09 04:50		179646	
Cyclohexane	10	U	10	0.22	1	NA	11/17/09 04:50		179646	
Dibromochloromethane	10	U	10	0.17	1	NA	11/17/09 04:50		179646	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/17/09 04:50		179646	
Dichloromethane	10	U	10	0.22	1	NA	11/17/09 04:50		179646	
Ethylbenzene	10	U	10	0.21	1	NA	11/17/09 04:50		179646	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/17/09 04:50		179646	
Methyl Acetate	10	U	10	0.36	1	NA	11/17/09 04:50		179646	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1235
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW04-1109-01	**Units:**	µg/L
Lab Code:	R0906509-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/17/09 04:50		179646	
Methylcyclohexane	10	U	10	0.33	1	NA	11/17/09 04:50		179646	
Styrene	10	U	10	0.18	1	NA	11/17/09 04:50		179646	
Tetrachloroethene (PCE)	10	U	10	0.22	1	NA	11/17/09 04:50		179646	
Toluene	**0.34**	J	10	0.27	1	NA	11/17/09 04:50		179646	
Trichloroethene (TCE)	10	U	10	0.28	1	NA	11/17/09 04:50		179646	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/17/09 04:50		179646	
Vinyl Chloride	10	U	10	0.30	1	NA	11/17/09 04:50		179646	
cis-1,2-Dichloroethene	10	U	10	0.21	1	NA	11/17/09 04:50		179646	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/17/09 04:50		179646	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/17/09 04:50		179646	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/17/09 04:50		179646	
o-Xylene	10	U	10	0.17	1	NA	11/17/09 04:50		179646	
m,p-Xylenes	10	U	10	0.29	1	NA	11/17/09 04:50		179646	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/17/09 04:50		179646	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/17/09 04:50		179646	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	102	76-114	11/17/09 04:50		
4-Bromofluorobenzene	92	86-115	11/17/09 04:50		
Toluene-d8	100	88-110	11/17/09 04:50		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/17/09 0450

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	MW04-1109-01	**Units:**	µg/L
Lab Code:	R0906509-003	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1305
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW04A-1109-01	**Units:**	µg/L
Lab Code:	R0906509-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	10	U	10	0.28	1	NA	11/20/09 17:21		180418	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/20/09 17:21		180418	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/20/09 17:21		180418	
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.17	1	NA	11/20/09 17:21		180418	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/20/09 17:21		180418	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/20/09 17:21		180418	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/20/09 17:21		180418	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/20/09 17:21		180418	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/20/09 17:21		180418	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/20/09 17:21		180418	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/20/09 17:21		180418	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/20/09 17:21		180418	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/20/09 17:21		180418	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/20/09 17:21		180418	
2-Hexanone	10	U	10	0.59	1	NA	11/20/09 17:21		180418	
Acetone	2.6	J	10	1.3	1	NA	11/20/09 17:21		180418	
Benzene	10	U	10	0.20	1	NA	11/20/09 17:21		180418	
Bromodichloromethane	10	U	10	0.16	1	NA	11/20/09 17:21		180418	
Bromoform	10	U	10	0.42	1	NA	11/20/09 17:21		180418	
Bromomethane	10	U	10	0.53	1	NA	11/20/09 17:21		180418	
Carbon Disulfide	10	U	10	0.28	1	NA	11/20/09 17:21		180418	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/20/09 17:21		180418	
Chlorobenzene	10	U	10	0.24	1	NA	11/20/09 17:21		180418	
Chloroethane	10	U	10	0.36	1	NA	11/20/09 17:21		180418	
Chloroform	10	U	10	0.16	1	NA	11/20/09 17:21		180418	
Chloromethane	10	U	10	0.39	1	NA	11/20/09 17:21		180418	
Cyclohexane	10	U	10	0.22	1	NA	11/20/09 17:21		180418	
Dibromochloromethane	10	U	10	0.17	1	NA	11/20/09 17:21		180418	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/20/09 17:21		180418	
Dichloromethane	10	U	10	0.22	1	NA	11/20/09 17:21		180418	
Ethylbenzene	10	U	10	0.21	1	NA	11/20/09 17:21		180418	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/20/09 17:21		180418	
Methyl Acetate	10	U	10	0.36	1	NA	11/20/09 17:21		180418	

Comments:

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1305
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW04A-1109-01	**Units:**	µg/L
Lab Code:	R0906509-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/20/09 17:21		180418	
Methylcyclohexane	10	U	10	0.33	1	NA	11/20/09 17:21		180418	
Styrene	10	U	10	0.18	1	NA	11/20/09 17:21		180418	
Tetrachloroethene (PCE)	10	U	10	0.22	1	NA	11/20/09 17:21		180418	
Toluene	10	U	10	0.27	1	NA	11/20/09 17:21		180418	
Trichloroethene (TCE)	10	U	10	0.28	1	NA	11/20/09 17:21		180418	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/20/09 17:21		180418	
Vinyl Chloride	10	U	10	0.30	1	NA	11/20/09 17:21		180418	
cis-1,2-Dichloroethene	10	U	10	0.21	1	NA	11/20/09 17:21		180418	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/20/09 17:21		180418	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/20/09 17:21		180418	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/20/09 17:21		180418	
o-Xylene	10	U	10	0.17	1	NA	11/20/09 17:21		180418	
m,p-Xylenes	10	U	10	0.29	1	NA	11/20/09 17:21		180418	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/20/09 17:21		180418	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/20/09 17:21		180418	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	103	76-114	11/20/09 17:21		
4-Bromofluorobenzene	95	86-115	11/20/09 17:21		
Toluene-d8	98	88-110	11/20/09 17:21		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/20/09 1721

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	MW04A-1109-01	**Units:**	µg/L
Lab Code:	R0906509-004	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1445
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW05-1109-01	**Units:**	µg/L
Lab Code:	R0906509-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	10	U	10	0.28	1	NA	11/17/09 05:18		179646	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/17/09 05:18		179646	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/17/09 05:18		179646	
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.17	1	NA	11/17/09 05:18		179646	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/17/09 05:18		179646	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/17/09 05:18		179646	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/17/09 05:18		179646	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/17/09 05:18		179646	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/17/09 05:18		179646	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/17/09 05:18		179646	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/17/09 05:18		179646	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/17/09 05:18		179646	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/17/09 05:18		179646	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/17/09 05:18		179646	
2-Hexanone	10	U	10	0.59	1	NA	11/17/09 05:18		179646	
Acetone	10	U	10	1.3	1	NA	11/17/09 05:18		179646	
Benzene	10	U	10	0.20	1	NA	11/17/09 05:18		179646	
Bromodichloromethane	10	U	10	0.16	1	NA	11/17/09 05:18		179646	
Bromoform	10	U	10	0.42	1	NA	11/17/09 05:18		179646	
Bromomethane	10	U	10	0.53	1	NA	11/17/09 05:18		179646	
Carbon Disulfide	10	U	10	0.28	1	NA	11/17/09 05:18		179646	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/17/09 05:18		179646	
Chlorobenzene	10	U	10	0.24	1	NA	11/17/09 05:18		179646	
Chloroethane	10	U	10	0.36	1	NA	11/17/09 05:18		179646	
Chloroform	10	U	10	0.16	1	NA	11/17/09 05:18		179646	
Chloromethane	10	U	10	0.39	1	NA	11/17/09 05:18		179646	
Cyclohexane	10	U	10	0.22	1	NA	11/17/09 05:18		179646	
Dibromochloromethane	10	U	10	0.17	1	NA	11/17/09 05:18		179646	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/17/09 05:18		179646	
Dichloromethane	10	U	10	0.22	1	NA	11/17/09 05:18		179646	
Ethylbenzene	10	U	10	0.21	1	NA	11/17/09 05:18		179646	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/17/09 05:18		179646	
Methyl Acetate	10	U	10	0.36	1	NA	11/17/09 05:18		179646	

Comments:

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1445
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW05-1109-01	**Units:**	µg/L
Lab Code:	R0906509-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/17/09 05:18		179646	
Methylcyclohexane	10	U	10	0.33	1	NA	11/17/09 05:18		179646	
Styrene	10	U	10	0.18	1	NA	11/17/09 05:18		179646	
Tetrachloroethene (PCE)	**0.53**	J	10	0.22	1	NA	11/17/09 05:18		179646	
Toluene	10	U	10	0.27	1	NA	11/17/09 05:18		179646	
Trichloroethene (TCE)	**0.31**	J	10	0.28	1	NA	11/17/09 05:18		179646	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/17/09 05:18		179646	
Vinyl Chloride	10	U	10	0.30	1	NA	11/17/09 05:18		179646	
cis-1,2-Dichloroethene	10	U	10	0.21	1	NA	11/17/09 05:18		179646	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/17/09 05:18		179646	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/17/09 05:18		179646	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/17/09 05:18		179646	
o-Xylene	10	U	10	0.17	1	NA	11/17/09 05:18		179646	
m,p-Xylenes	10	U	10	0.29	1	NA	11/17/09 05:18		179646	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/17/09 05:18		179646	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/17/09 05:18		179646	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	101	76-114	11/17/09 05:18		
4-Bromofluorobenzene	94	86-115	11/17/09 05:18		
Toluene-d8	102	88-110	11/17/09 05:18		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/17/09 0518

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	MW05-1109-01	**Units:**	µg/L
Lab Code:	R0906509-005	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1000
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW08-1109-01	**Units:**	µg/L
Lab Code:	R0906509-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	10	U	10	0.28	1	NA	11/17/09 05:46		179646	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/17/09 05:46		179646	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/17/09 05:46		179646	
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.17	1	NA	11/17/09 05:46		179646	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/17/09 05:46		179646	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/17/09 05:46		179646	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/17/09 05:46		179646	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/17/09 05:46		179646	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/17/09 05:46		179646	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/17/09 05:46		179646	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/17/09 05:46		179646	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/17/09 05:46		179646	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/17/09 05:46		179646	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/17/09 05:46		179646	
2-Hexanone	10	U	10	0.59	1	NA	11/17/09 05:46		179646	
Acetone	2.3	J	10	1.3	1	NA	11/17/09 05:46		179646	
Benzene	10	U	10	0.20	1	NA	11/17/09 05:46		179646	
Bromodichloromethane	10	U	10	0.16	1	NA	11/17/09 05:46		179646	
Bromoform	10	U	10	0.42	1	NA	11/17/09 05:46		179646	
Bromomethane	10	U	10	0.53	1	NA	11/17/09 05:46		179646	
Carbon Disulfide	10	U	10	0.28	1	NA	11/17/09 05:46		179646	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/17/09 05:46		179646	
Chlorobenzene	10	U	10	0.24	1	NA	11/17/09 05:46		179646	
Chloroethane	10	U	10	0.36	1	NA	11/17/09 05:46		179646	
Chloroform	10	U	10	0.16	1	NA	11/17/09 05:46		179646	
Chloromethane	10	U	10	0.39	1	NA	11/17/09 05:46		179646	
Cyclohexane	10	U	10	0.22	1	NA	11/17/09 05:46		179646	
Dibromochloromethane	10	U	10	0.17	1	NA	11/17/09 05:46		179646	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/17/09 05:46		179646	
Dichloromethane	10	U	10	0.22	1	NA	11/17/09 05:46		179646	
Ethylbenzene	10	U	10	0.21	1	NA	11/17/09 05:46		179646	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/17/09 05:46		179646	
Methyl Acetate	10	U	10	0.36	1	NA	11/17/09 05:46		179646	

Comments:

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1000
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW08-1109-01	**Units:**	µg/L
Lab Code:	R0906509-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/17/09 05:46		179646	
Methylcyclohexane	10	U	10	0.33	1	NA	11/17/09 05:46		179646	
Styrene	10	U	10	0.18	1	NA	11/17/09 05:46		179646	
Tetrachloroethene (PCE)	10	U	10	0.22	1	NA	11/17/09 05:46		179646	
Toluene	10	U	10	0.27	1	NA	11/17/09 05:46		179646	
Trichloroethene (TCE)	10	U	10	0.28	1	NA	11/17/09 05:46		179646	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/17/09 05:46		179646	
Vinyl Chloride	10	U	10	0.30	1	NA	11/17/09 05:46		179646	
cis-1,2-Dichloroethene	10	U	10	0.21	1	NA	11/17/09 05:46		179646	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/17/09 05:46		179646	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/17/09 05:46		179646	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/17/09 05:46		179646	
o-Xylene	10	U	10	0.17	1	NA	11/17/09 05:46		179646	
m,p-Xylenes	10	U	10	0.29	1	NA	11/17/09 05:46		179646	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/17/09 05:46		179646	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/17/09 05:46		179646	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	102	76-114	11/17/09 05:46		
4-Bromofluorobenzene	94	86-115	11/17/09 05:46		
Toluene-d8	99	88-110	11/17/09 05:46		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/17/09 0546

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	MW08-1109-01	**Units:**	µg/L
Lab Code:	R0906509-006	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1055
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW09-1109-01	**Units:**	µg/L
Lab Code:	R0906509-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	10	U	10	0.28	1	NA	11/17/09 06:14		179646	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/17/09 06:14		179646	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/17/09 06:14		179646	
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.17	1	NA	11/17/09 06:14		179646	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/17/09 06:14		179646	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/17/09 06:14		179646	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/17/09 06:14		179646	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/17/09 06:14		179646	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/17/09 06:14		179646	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/17/09 06:14		179646	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/17/09 06:14		179646	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/17/09 06:14		179646	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/17/09 06:14		179646	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/17/09 06:14		179646	
2-Hexanone	10	U	10	0.59	1	NA	11/17/09 06:14		179646	
Acetone	10	U	10	1.3	1	NA	11/17/09 06:14		179646	
Benzene	10	U	10	0.20	1	NA	11/17/09 06:14		179646	
Bromodichloromethane	10	U	10	0.16	1	NA	11/17/09 06:14		179646	
Bromoform	10	U	10	0.42	1	NA	11/17/09 06:14		179646	
Bromomethane	10	U	10	0.53	1	NA	11/17/09 06:14		179646	
Carbon Disulfide	10	U	10	0.28	1	NA	11/17/09 06:14		179646	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/17/09 06:14		179646	
Chlorobenzene	10	U	10	0.24	1	NA	11/17/09 06:14		179646	
Chloroethane	10	U	10	0.36	1	NA	11/17/09 06:14		179646	
Chloroform	10	U	10	0.16	1	NA	11/17/09 06:14		179646	
Chloromethane	10	U	10	0.39	1	NA	11/17/09 06:14		179646	
Cyclohexane	10	U	10	0.22	1	NA	11/17/09 06:14		179646	
Dibromochloromethane	10	U	10	0.17	1	NA	11/17/09 06:14		179646	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/17/09 06:14		179646	
Dichloromethane	10	U	10	0.22	1	NA	11/17/09 06:14		179646	
Ethylbenzene	10	U	10	0.21	1	NA	11/17/09 06:14		179646	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/17/09 06:14		179646	
Methyl Acetate	10	U	10	0.36	1	NA	11/17/09 06:14		179646	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1055
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW09-1109-01	**Units:**	µg/L
Lab Code:	R0906509-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/17/09 06:14		179646	
Methylcyclohexane	10	U	10	0.33	1	NA	11/17/09 06:14		179646	
Styrene	10	U	10	0.18	1	NA	11/17/09 06:14		179646	
Tetrachloroethene (PCE)	10	U	10	0.22	1	NA	11/17/09 06:14		179646	
Toluene	10	U	10	0.27	1	NA	11/17/09 06:14		179646	
Trichloroethene (TCE)	10	U	10	0.28	1	NA	11/17/09 06:14		179646	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/17/09 06:14		179646	
Vinyl Chloride	10	U	10	0.30	1	NA	11/17/09 06:14		179646	
cis-1,2-Dichloroethene	10	U	10	0.21	1	NA	11/17/09 06:14		179646	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/17/09 06:14		179646	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/17/09 06:14		179646	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/17/09 06:14		179646	
o-Xylene	10	U	10	0.17	1	NA	11/17/09 06:14		179646	
m,p-Xylenes	10	U	10	0.29	1	NA	11/17/09 06:14		179646	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/17/09 06:14		179646	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/17/09 06:14		179646	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	103	76-114	11/17/09 06:14		
4-Bromofluorobenzene	92	86-115	11/17/09 06:14		
Toluene-d8	98	88-110	11/17/09 06:14		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/17/09 0614

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	MW09-1109-01	**Units:**	µg/L
Lab Code:	R0906509-007	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1125
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW09A-1109-01	**Units:**	µg/L
Lab Code:	R0906509-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	10	U	10	0.28	1	NA	11/17/09 06:42		179646	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/17/09 06:42		179646	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/17/09 06:42		179646	
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.17	1	NA	11/17/09 06:42		179646	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/17/09 06:42		179646	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/17/09 06:42		179646	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/17/09 06:42		179646	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/17/09 06:42		179646	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/17/09 06:42		179646	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/17/09 06:42		179646	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/17/09 06:42		179646	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/17/09 06:42		179646	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/17/09 06:42		179646	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/17/09 06:42		179646	
2-Hexanone	10	U	10	0.59	1	NA	11/17/09 06:42		179646	
Acetone	2.4	J	10	1.3	1	NA	11/17/09 06:42		179646	
Benzene	10	U	10	0.20	1	NA	11/17/09 06:42		179646	
Bromodichloromethane	10	U	10	0.16	1	NA	11/17/09 06:42		179646	
Bromoform	10	U	10	0.42	1	NA	11/17/09 06:42		179646	
Bromomethane	10	U	10	0.53	1	NA	11/17/09 06:42		179646	
Carbon Disulfide	10	U	10	0.28	1	NA	11/17/09 06:42		179646	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/17/09 06:42		179646	
Chlorobenzene	10	U	10	0.24	1	NA	11/17/09 06:42		179646	
Chloroethane	10	U	10	0.36	1	NA	11/17/09 06:42		179646	
Chloroform	10	U	10	0.16	1	NA	11/17/09 06:42		179646	
Chloromethane	10	U	10	0.39	1	NA	11/17/09 06:42		179646	
Cyclohexane	10	U	10	0.22	1	NA	11/17/09 06:42		179646	
Dibromochloromethane	10	U	10	0.17	1	NA	11/17/09 06:42		179646	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/17/09 06:42		179646	
Dichloromethane	10	U	10	0.22	1	NA	11/17/09 06:42		179646	
Ethylbenzene	10	U	10	0.21	1	NA	11/17/09 06:42		179646	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/17/09 06:42		179646	
Methyl Acetate	10	U	10	0.36	1	NA	11/17/09 06:42		179646	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1125
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW09A-1109-01	**Units:**	µg/L
Lab Code:	R0906509-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/17/09 06:42		179646	
Methylcyclohexane	10	U	10	0.33	1	NA	11/17/09 06:42		179646	
Styrene	10	U	10	0.18	1	NA	11/17/09 06:42		179646	
Tetrachloroethene (PCE)	10	U	10	0.22	1	NA	11/17/09 06:42		179646	
Toluene	10	U	10	0.27	1	NA	11/17/09 06:42		179646	
Trichloroethene (TCE)	10	U	10	0.28	1	NA	11/17/09 06:42		179646	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/17/09 06:42		179646	
Vinyl Chloride	10	U	10	0.30	1	NA	11/17/09 06:42		179646	
cis-1,2-Dichloroethene	10	U	10	0.21	1	NA	11/17/09 06:42		179646	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/17/09 06:42		179646	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/17/09 06:42		179646	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/17/09 06:42		179646	
o-Xylene	10	U	10	0.17	1	NA	11/17/09 06:42		179646	
m,p-Xylenes	10	U	10	0.29	1	NA	11/17/09 06:42		179646	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/17/09 06:42		179646	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/17/09 06:42		179646	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	104	76-114	11/17/09 06:42		
4-Bromofluorobenzene	93	86-115	11/17/09 06:42		
Toluene-d8	100	88-110	11/17/09 06:42		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/17/09 0642

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	MW09A-1109-01	**Units:**	µg/L
Lab Code:	R0906509-008	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1410
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW10-1109-01	**Units:**	µg/L
Lab Code:	R0906509-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	10	U	10	0.28	1	NA	11/17/09 07:10		179646	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/17/09 07:10		179646	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/17/09 07:10		179646	
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.17	1	NA	11/17/09 07:10		179646	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/17/09 07:10		179646	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/17/09 07:10		179646	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/17/09 07:10		179646	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/17/09 07:10		179646	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/17/09 07:10		179646	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/17/09 07:10		179646	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/17/09 07:10		179646	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/17/09 07:10		179646	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/17/09 07:10		179646	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/17/09 07:10		179646	
2-Hexanone	10	U	10	0.59	1	NA	11/17/09 07:10		179646	
Acetone	1.5	J	10	1.3	1	NA	11/17/09 07:10		179646	
Benzene	10	U	10	0.20	1	NA	11/17/09 07:10		179646	
Bromodichloromethane	10	U	10	0.16	1	NA	11/17/09 07:10		179646	
Bromoform	10	U	10	0.42	1	NA	11/17/09 07:10		179646	
Bromomethane	10	U	10	0.53	1	NA	11/17/09 07:10		179646	
Carbon Disulfide	10	U	10	0.28	1	NA	11/17/09 07:10		179646	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/17/09 07:10		179646	
Chlorobenzene	10	U	10	0.24	1	NA	11/17/09 07:10		179646	
Chloroethane	10	U	10	0.36	1	NA	11/17/09 07:10		179646	
Chloroform	10	U	10	0.16	1	NA	11/17/09 07:10		179646	
Chloromethane	10	U	10	0.39	1	NA	11/17/09 07:10		179646	
Cyclohexane	10	U	10	0.22	1	NA	11/17/09 07:10		179646	
Dibromochloromethane	10	U	10	0.17	1	NA	11/17/09 07:10		179646	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/17/09 07:10		179646	
Dichloromethane	10	U	10	0.22	1	NA	11/17/09 07:10		179646	
Ethylbenzene	10	U	10	0.21	1	NA	11/17/09 07:10		179646	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/17/09 07:10		179646	
Methyl Acetate	10	U	10	0.36	1	NA	11/17/09 07:10		179646	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1410
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW10-1109-01	**Units:**	µg/L
Lab Code:	R0906509-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/17/09 07:10		179646	
Methylcyclohexane	10	U	10	0.33	1	NA	11/17/09 07:10		179646	
Styrene	10	U	10	0.18	1	NA	11/17/09 07:10		179646	
Tetrachloroethene (PCE)	10	U	10	0.22	1	NA	11/17/09 07:10		179646	
Toluene	10	U	10	0.27	1	NA	11/17/09 07:10		179646	
Trichloroethene (TCE)	10	U	10	0.28	1	NA	11/17/09 07:10		179646	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/17/09 07:10		179646	
Vinyl Chloride	10	U	10	0.30	1	NA	11/17/09 07:10		179646	
cis-1,2-Dichloroethene	10	U	10	0.21	1	NA	11/17/09 07:10		179646	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/17/09 07:10		179646	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/17/09 07:10		179646	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/17/09 07:10		179646	
o-Xylene	10	U	10	0.17	1	NA	11/17/09 07:10		179646	
m,p-Xylenes	10	U	10	0.29	1	NA	11/17/09 07:10		179646	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/17/09 07:10		179646	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/17/09 07:10		179646	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	101	76-114	11/17/09 07:10		
4-Bromofluorobenzene	92	86-115	11/17/09 07:10		
Toluene-d8	99	88-110	11/17/09 07:10		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/17/09 0710

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	MW10-1109-01	**Units:**	µg/L
Lab Code:	R0906509-009	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1340
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW10A-1109-01	**Units:**	µg/L
Lab Code:	R0906509-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	**2.1**	J	10	0.28	1	NA	11/20/09 20:09		180418	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/20/09 20:09		180418	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/20/09 20:09		180418	
1,1-Dichloroethane (1,1-DCA)	**9.0**	J	10	0.17	1	NA	11/20/09 20:09		180418	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/20/09 20:09		180418	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/20/09 20:09		180418	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/20/09 20:09		180418	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/20/09 20:09		180418	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/20/09 20:09		180418	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/20/09 20:09		180418	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/20/09 20:09		180418	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/20/09 20:09		180418	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/20/09 20:09		180418	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/20/09 20:09		180418	
2-Hexanone	10	U	10	0.59	1	NA	11/20/09 20:09		180418	
Acetone	10	U	10	1.3	1	NA	11/20/09 20:09		180418	
Benzene	10	U	10	0.20	1	NA	11/20/09 20:09		180418	
Bromodichloromethane	10	U	10	0.16	1	NA	11/20/09 20:09		180418	
Bromoform	10	U	10	0.42	1	NA	11/20/09 20:09		180418	
Bromomethane	10	U	10	0.53	1	NA	11/20/09 20:09		180418	
Carbon Disulfide	10	U	10	0.28	1	NA	11/20/09 20:09		180418	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/20/09 20:09		180418	
Chlorobenzene	10	U	10	0.24	1	NA	11/20/09 20:09		180418	
Chloroethane	10	U	10	0.36	1	NA	11/20/09 20:09		180418	
Chloroform	10	U	10	0.16	1	NA	11/20/09 20:09		180418	
Chloromethane	10	U	10	0.39	1	NA	11/20/09 20:09		180418	
Cyclohexane	10	U	10	0.22	1	NA	11/20/09 20:09		180418	
Dibromochloromethane	10	U	10	0.17	1	NA	11/20/09 20:09		180418	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/20/09 20:09		180418	
Dichloromethane	10	U	10	0.22	1	NA	11/20/09 20:09		180418	
Ethylbenzene	10	U	10	0.21	1	NA	11/20/09 20:09		180418	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/20/09 20:09		180418	
Methyl Acetate	10	U	10	0.36	1	NA	11/20/09 20:09		180418	

Comments:

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1340
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW10A-1109-01	**Units:**	µg/L
Lab Code:	R0906509-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/20/09 20:09		180418	
Methylcyclohexane	10	U	10	0.33	1	NA	11/20/09 20:09		180418	
Styrene	10	U	10	0.18	1	NA	11/20/09 20:09		180418	
Tetrachloroethene (PCE)	2.3	J	10	0.22	1	NA	11/20/09 20:09		180418	
Toluene	10	U	10	0.27	1	NA	11/20/09 20:09		180418	
Trichloroethene (TCE)	1.5	J	10	0.28	1	NA	11/20/09 20:09		180418	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/20/09 20:09		180418	
Vinyl Chloride	10	U	10	0.30	1	NA	11/20/09 20:09		180418	
cis-1,2-Dichloroethene	1.6	J	10	0.21	1	NA	11/20/09 20:09		180418	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/20/09 20:09		180418	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/20/09 20:09		180418	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/20/09 20:09		180418	
o-Xylene	10	U	10	0.17	1	NA	11/20/09 20:09		180418	
m,p-Xylenes	10	U	10	0.29	1	NA	11/20/09 20:09		180418	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/20/09 20:09		180418	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/20/09 20:09		180418	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	102	76-114	11/20/09 20:09		
4-Bromofluorobenzene	92	86-115	11/20/09 20:09		
Toluene-d8	96	88-110	11/20/09 20:09		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/20/09 2009

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	MW10A-1109-01	**Units:**	µg/L
Lab Code:	R0906509-010	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1340
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW10AMS-1109-03	**Units:**	µg/L
Lab Code:	R0906509-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	2.1	J	10	0.28	1	NA	11/20/09 20:37		180418	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/20/09 20:37		180418	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/20/09 20:37		180418	
1,1-Dichloroethane (1,1-DCA)	9.8	J	10	0.17	1	NA	11/20/09 20:37		180418	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/20/09 20:37		180418	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/20/09 20:37		180418	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/20/09 20:37		180418	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/20/09 20:37		180418	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/20/09 20:37		180418	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/20/09 20:37		180418	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/20/09 20:37		180418	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/20/09 20:37		180418	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/20/09 20:37		180418	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/20/09 20:37		180418	
2-Hexanone	10	U	10	0.59	1	NA	11/20/09 20:37		180418	
Acetone	10	U	10	1.3	1	NA	11/20/09 20:37		180418	
Benzene	10	U	10	0.20	1	NA	11/20/09 20:37		180418	
Bromodichloromethane	10	U	10	0.16	1	NA	11/20/09 20:37		180418	
Bromoform	10	U	10	0.42	1	NA	11/20/09 20:37		180418	
Bromomethane	10	U	10	0.53	1	NA	11/20/09 20:37		180418	
Carbon Disulfide	10	U	10	0.28	1	NA	11/20/09 20:37		180418	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/20/09 20:37		180418	
Chlorobenzene	10	U	10	0.24	1	NA	11/20/09 20:37		180418	
Chloroethane	10	U	10	0.36	1	NA	11/20/09 20:37		180418	
Chloroform	10	U	10	0.16	1	NA	11/20/09 20:37		180418	
Chloromethane	10	U	10	0.39	1	NA	11/20/09 20:37		180418	
Cyclohexane	10	U	10	0.22	1	NA	11/20/09 20:37		180418	
Dibromochloromethane	10	U	10	0.17	1	NA	11/20/09 20:37		180418	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/20/09 20:37		180418	
Dichloromethane	10	U	10	0.22	1	NA	11/20/09 20:37		180418	
Ethylbenzene	10	U	10	0.21	1	NA	11/20/09 20:37		180418	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/20/09 20:37		180418	
Methyl Acetate	10	U	10	0.36	1	NA	11/20/09 20:37		180418	

Comments:

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1340
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW10AMS-1109-03	**Units:**	µg/L
Lab Code:	R0906509-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/20/09 20:37		180418	
Methylcyclohexane	10	U	10	0.33	1	NA	11/20/09 20:37		180418	
Styrene	10	U	10	0.18	1	NA	11/20/09 20:37		180418	
Tetrachloroethene (PCE)	2.3	J	10	0.22	1	NA	11/20/09 20:37		180418	
Toluene	10	U	10	0.27	1	NA	11/20/09 20:37		180418	
Trichloroethene (TCE)	1.4	J	10	0.28	1	NA	11/20/09 20:37		180418	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/20/09 20:37		180418	
Vinyl Chloride	10	U	10	0.30	1	NA	11/20/09 20:37		180418	
cis-1,2-Dichloroethene	1.5	J	10	0.21	1	NA	11/20/09 20:37		180418	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/20/09 20:37		180418	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/20/09 20:37		180418	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/20/09 20:37		180418	
o-Xylene	10	U	10	0.17	1	NA	11/20/09 20:37		180418	
m,p-Xylenes	10	U	10	0.29	1	NA	11/20/09 20:37		180418	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/20/09 20:37		180418	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/20/09 20:37		180418	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	101	76-114	11/20/09 20:37		
4-Bromofluorobenzene	93	86-115	11/20/09 20:37		
Toluene-d8	96	88-110	11/20/09 20:37		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/20/09 2037

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	MW10AMS-1109-03	**Units:**	µg/L
Lab Code:	R0906509-011	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1340
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW10ASD-1109-03	**Units:**	µg/L
Lab Code:	R0906509-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	2.2	J	10	0.28	1	NA	11/20/09 21:05		180418	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/20/09 21:05		180418	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/20/09 21:05		180418	
1,1-Dichloroethane (1,1-DCA)	11		10	0.17	1	NA	11/20/09 21:05		180418	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/20/09 21:05		180418	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/20/09 21:05		180418	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/20/09 21:05		180418	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/20/09 21:05		180418	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/20/09 21:05		180418	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/20/09 21:05		180418	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/20/09 21:05		180418	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/20/09 21:05		180418	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/20/09 21:05		180418	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/20/09 21:05		180418	
2-Hexanone	10	U	10	0.59	1	NA	11/20/09 21:05		180418	
Acetone	6.3	J	10	1.3	1	NA	11/20/09 21:05		180418	
Benzene	10	U	10	0.20	1	NA	11/20/09 21:05		180418	
Bromodichloromethane	10	U	10	0.16	1	NA	11/20/09 21:05		180418	
Bromoform	10	U	10	0.42	1	NA	11/20/09 21:05		180418	
Bromomethane	10	U	10	0.53	1	NA	11/20/09 21:05		180418	
Carbon Disulfide	10	U	10	0.28	1	NA	11/20/09 21:05		180418	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/20/09 21:05		180418	
Chlorobenzene	10	U	10	0.24	1	NA	11/20/09 21:05		180418	
Chloroethane	10	U	10	0.36	1	NA	11/20/09 21:05		180418	
Chloroform	10	U	10	0.16	1	NA	11/20/09 21:05		180418	
Chloromethane	10	U	10	0.39	1	NA	11/20/09 21:05		180418	
Cyclohexane	10	U	10	0.22	1	NA	11/20/09 21:05		180418	
Dibromochloromethane	10	U	10	0.17	1	NA	11/20/09 21:05		180418	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/20/09 21:05		180418	
Dichloromethane	10	U	10	0.22	1	NA	11/20/09 21:05		180418	
Ethylbenzene	10	U	10	0.21	1	NA	11/20/09 21:05		180418	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/20/09 21:05		180418	
Methyl Acetate	10	U	10	0.36	1	NA	11/20/09 21:05		180418	

Comments:

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1340
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW10ASD-1109-03	**Units:**	µg/L
Lab Code:	R0906509-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/20/09 21:05		180418	
Methylcyclohexane	10	U	10	0.33	1	NA	11/20/09 21:05		180418	
Styrene	10	U	10	0.18	1	NA	11/20/09 21:05		180418	
Tetrachloroethene (PCE)	2.4	J	10	0.22	1	NA	11/20/09 21:05		180418	
Toluene	0.33	J	10	0.27	1	NA	11/20/09 21:05		180418	
Trichloroethene (TCE)	1.4	J	10	0.28	1	NA	11/20/09 21:05		180418	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/20/09 21:05		180418	
Vinyl Chloride	10	U	10	0.30	1	NA	11/20/09 21:05		180418	
cis-1,2-Dichloroethene	1.6	J	10	0.21	1	NA	11/20/09 21:05		180418	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/20/09 21:05		180418	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/20/09 21:05		180418	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/20/09 21:05		180418	
o-Xylene	10	U	10	0.17	1	NA	11/20/09 21:05		180418	
m,p-Xylenes	10	U	10	0.29	1	NA	11/20/09 21:05		180418	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/20/09 21:05		180418	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/20/09 21:05		180418	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	104	76-114	11/20/09 21:05		
4-Bromofluorobenzene	94	86-115	11/20/09 21:05		
Toluene-d8	99	88-110	11/20/09 21:05		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/20/09 2105

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	MW10ASD-1109-03	**Units:**	µg/L
Lab Code:	R0906509-012	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1555
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW11-1109-01	**Units:**	µg/L
Lab Code:	R0906509-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	10	U	10	0.28	1	NA	11/20/09 21:33		180418	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/20/09 21:33		180418	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/20/09 21:33		180418	
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.17	1	NA	11/20/09 21:33		180418	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/20/09 21:33		180418	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/20/09 21:33		180418	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/20/09 21:33		180418	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/20/09 21:33		180418	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/20/09 21:33		180418	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/20/09 21:33		180418	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/20/09 21:33		180418	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/20/09 21:33		180418	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/20/09 21:33		180418	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/20/09 21:33		180418	
2-Hexanone	10	U	10	0.59	1	NA	11/20/09 21:33		180418	
Acetone	10	U	10	1.3	1	NA	11/20/09 21:33		180418	
Benzene	10	U	10	0.20	1	NA	11/20/09 21:33		180418	
Bromodichloromethane	10	U	10	0.16	1	NA	11/20/09 21:33		180418	
Bromoform	10	U	10	0.42	1	NA	11/20/09 21:33		180418	
Bromomethane	10	U	10	0.53	1	NA	11/20/09 21:33		180418	
Carbon Disulfide	10	U	10	0.28	1	NA	11/20/09 21:33		180418	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/20/09 21:33		180418	
Chlorobenzene	10	U	10	0.24	1	NA	11/20/09 21:33		180418	
Chloroethane	10	U	10	0.36	1	NA	11/20/09 21:33		180418	
Chloroform	10	U	10	0.16	1	NA	11/20/09 21:33		180418	
Chloromethane	10	U	10	0.39	1	NA	11/20/09 21:33		180418	
Cyclohexane	10	U	10	0.22	1	NA	11/20/09 21:33		180418	
Dibromochloromethane	10	U	10	0.17	1	NA	11/20/09 21:33		180418	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/20/09 21:33		180418	
Dichloromethane	10	U	10	0.22	1	NA	11/20/09 21:33		180418	
Ethylbenzene	10	U	10	0.21	1	NA	11/20/09 21:33		180418	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/20/09 21:33		180418	
Methyl Acetate	10	U	10	0.36	1	NA	11/20/09 21:33		180418	

Comments:

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1555
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW11-1109-01	**Units:**	µg/L
Lab Code:	R0906509-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/20/09 21:33		180418	
Methylcyclohexane	10	U	10	0.33	1	NA	11/20/09 21:33		180418	
Styrene	10	U	10	0.18	1	NA	11/20/09 21:33		180418	
Tetrachloroethene (PCE)	10	U	10	0.22	1	NA	11/20/09 21:33		180418	
Toluene	10	U	10	0.27	1	NA	11/20/09 21:33		180418	
Trichloroethene (TCE)	10	U	10	0.28	1	NA	11/20/09 21:33		180418	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/20/09 21:33		180418	
Vinyl Chloride	10	U	10	0.30	1	NA	11/20/09 21:33		180418	
cis-1,2-Dichloroethene	10	U	10	0.21	1	NA	11/20/09 21:33		180418	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/20/09 21:33		180418	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/20/09 21:33		180418	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/20/09 21:33		180418	
o-Xylene	10	U	10	0.17	1	NA	11/20/09 21:33		180418	
m,p-Xylenes	10	U	10	0.29	1	NA	11/20/09 21:33		180418	
1,1;2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/20/09 21:33		180418	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/20/09 21:33		180418	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	100	76-114	11/20/09 21:33		
4-Bromofluorobenzene	93	86-115	11/20/09 21:33		
Toluene-d8	98	88-110	11/20/09 21:33		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/20/09 2133

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	MW11-1109-01	**Units:**	µg/L
Lab Code:	R0906509-013	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1520
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW12-1109-01	**Units:**	µg/L
Lab Code:	R0906509-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	**0.48**	J	10	0.28	1	NA	11/20/09 22:01		180418	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/20/09 22:01		180418	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/20/09 22:01		180418	
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.17	1	NA	11/20/09 22:01		180418	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/20/09 22:01		180418	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/20/09 22:01		180418	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/20/09 22:01		180418	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/20/09 22:01		180418	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/20/09 22:01		180418	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/20/09 22:01		180418	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/20/09 22:01		180418	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/20/09 22:01		180418	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/20/09 22:01		180418	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/20/09 22:01		180418	
2-Hexanone	10	U	10	0.59	1	NA	11/20/09 22:01		180418	
Acetone	**1.3**	J	10	1.3	1	NA	11/20/09 22:01		180418	
Benzene	10	U	10	0.20	1	NA	11/20/09 22:01		180418	
Bromodichloromethane	10	U	10	0.16	1	NA	11/20/09 22:01		180418	
Bromoform	10	U	10	0.42	1	NA	11/20/09 22:01		180418	
Bromomethane	10	U	10	0.53	1	NA	11/20/09 22:01		180418	
Carbon Disulfide	10	U	10	0.28	1	NA	11/20/09 22:01		180418	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/20/09 22:01		180418	
Chlorobenzene	10	U	10	0.24	1	NA	11/20/09 22:01		180418	
Chloroethane	10	U	10	0.36	1	NA	11/20/09 22:01		180418	
Chloroform	10	U	10	0.16	1	NA	11/20/09 22:01		180418	
Chloromethane	10	U	10	0.39	1	NA	11/20/09 22:01		180418	
Cyclohexane	10	U	10	0.22	1	NA	11/20/09 22:01		180418	
Dibromochloromethane	10	U	10	0.17	1	NA	11/20/09 22:01		180418	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/20/09 22:01		180418	
Dichloromethane	10	U	10	0.22	1	NA	11/20/09 22:01		180418	
Ethylbenzene	10	U	10	0.21	1	NA	11/20/09 22:01		180418	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/20/09 22:01		180418	
Methyl Acetate	10	U	10	0.36	1	NA	11/20/09 22:01		180418	

Comments:

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1520
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	MW12-1109-01	**Units:**	µg/L
Lab Code:	R0906509-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/20/09 22:01		180418	
Methylcyclohexane	10	U	10	0.33	1	NA	11/20/09 22:01		180418	
Styrene	10	U	10	0.18	1	NA	11/20/09 22:01		180418	
Tetrachloroethene (PCE)	**1.8**	J	10	0.22	1	NA	11/20/09 22:01		180418	
Toluene	10	U	10	0.27	1	NA	11/20/09 22:01		180418	
Trichloroethene (TCE)	**4.3**	J	10	0.28	1	NA	11/20/09 22:01		180418	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/20/09 22:01		180418	
Vinyl Chloride	10	U	10	0.30	1	NA	11/20/09 22:01		180418	
cis-1,2-Dichloroethene	10	U	10	0.21	1	NA	11/20/09 22:01		180418	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/20/09 22:01		180418	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/20/09 22:01		180418	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/20/09 22:01		180418	
o-Xylene	10	U	10	0.17	1	NA	11/20/09 22:01		180418	
m,p-Xylenes	10	U	10	0.29	1	NA	11/20/09 22:01		180418	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/20/09 22:01		180418	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/20/09 22:01		180418	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	104	76-114	11/20/09 22:01		
4-Bromofluorobenzene	93	86-115	11/20/09 22:01		
Toluene-d8	97	88-110	11/20/09 22:01		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/20/09 2201

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	MW12-1109-01	**Units:**	µg/L
Lab Code:	R0906509-014	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1520
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	TRIP BLANK	**Units:**	µg/L
Lab Code:	R0906509-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	10	U	10	0.28	1	NA	11/20/09 22:29		180418	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/20/09 22:29		180418	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/20/09 22:29		180418	
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.17	1	NA	11/20/09 22:29		180418	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/20/09 22:29		180418	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/20/09 22:29		180418	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/20/09 22:29		180418	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/20/09 22:29		180418	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/20/09 22:29		180418	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/20/09 22:29		180418	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/20/09 22:29		180418	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/20/09 22:29		180418	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/20/09 22:29		180418	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/20/09 22:29		180418	
2-Hexanone	10	U	10	0.59	1	NA	11/20/09 22:29		180418	
Acetone	**1.8**	J	10	1.3	1	NA	11/20/09 22:29		180418	
Benzene	10	U	10	0.20	1	NA	11/20/09 22:29		180418	
Bromodichloromethane	10	U	10	0.16	1	NA	11/20/09 22:29		180418	
Bromoform	10	U	10	0.42	1	NA	11/20/09 22:29		180418	
Bromomethane	10	U	10	0.53	1	NA	11/20/09 22:29		180418	
Carbon Disulfide	10	U	10	0.28	1	NA	11/20/09 22:29		180418	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/20/09 22:29		180418	
Chlorobenzene	10	U	10	0.24	1	NA	11/20/09 22:29		180418	
Chloroethane	10	U	10	0.36	1	NA	11/20/09 22:29		180418	
Chloroform	10	U	10	0.16	1	NA	11/20/09 22:29		180418	
Chloromethane	10	U	10	0.39	1	NA	11/20/09 22:29		180418	
Cyclohexane	10	U	10	0.22	1	NA	11/20/09 22:29		180418	
Dibromochloromethane	10	U	10	0.17	1	NA	11/20/09 22:29		180418	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/20/09 22:29		180418	
Dichloromethane	10	U	10	0.22	1	NA	11/20/09 22:29		180418	
Ethylbenzene	10	U	10	0.21	1	NA	11/20/09 22:29		180418	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/20/09 22:29		180418	
Methyl Acetate	10	U	10	0.36	1	NA	11/20/09 22:29		180418	

Comments:

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09 1520
Sample Matrix:	Water	**Date Received:**	11/13/09
Sample Name:	TRIP BLANK	**Units:**	µg/L
Lab Code:	R0906509-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/20/09 22:29		180418	
Methylcyclohexane	10	U	10	0.33	1	NA	11/20/09 22:29		180418	
Styrene	10	U	10	0.18	1	NA	11/20/09 22:29		180418	
Tetrachloroethene (PCE)	10	U	10	0.22	1	NA	11/20/09 22:29		180418	
Toluene	10	U	10	0.27	1	NA	11/20/09 22:29		180418	
Trichloroethene (TCE)	10	U	10	0.28	1	NA	11/20/09 22:29		180418	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/20/09 22:29		180418	
Vinyl Chloride	10	U	10	0.30	1	NA	11/20/09 22:29		180418	
cis-1,2-Dichloroethene	10	U	10	0.21	1	NA	11/20/09 22:29		180418	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/20/09 22:29		180418	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/20/09 22:29		180418	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/20/09 22:29		180418	
o-Xylene	10	U	10	0.17	1	NA	11/20/09 22:29		180418	
m,p-Xylenes	10	U	10	0.29	1	NA	11/20/09 22:29		180418	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/20/09 22:29		180418	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/20/09 22:29		180418	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	106	76-114	11/20/09 22:29		
4-Bromofluorobenzene	94	86-115	11/20/09 22:29		
Toluene-d8	97	88-110	11/20/09 22:29		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	11/12/09
Sample Matrix:	Water	**Date Received:**	11/13/09
		Date Analyzed:	11/20/09 2229

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	TRIP BLANK	**Units:**	µg/L
Lab Code:	R0906509-015	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ0912195-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	10	U	10	0.28	1	NA	11/17/09 00:12		179646	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/17/09 00:12		179646	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/17/09 00:12		179646	
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.17	1	NA	11/17/09 00:12		179646	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/17/09 00:12		179646	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/17/09 00:12		179646	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/17/09 00:12		179646	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/17/09 00:12		179646	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/17/09 00:12		179646	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/17/09 00:12		179646	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/17/09 00:12		179646	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/17/09 00:12		179646	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/17/09 00:12		179646	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/17/09 00:12		179646	
2-Hexanone	10	U	10	0.59	1	NA	11/17/09 00:12		179646	
Acetone	10	U	10	1.3	1	NA	11/17/09 00:12		179646	
Benzene	10	U	10	0.20	1	NA	11/17/09 00:12		179646	
Bromodichloromethane	10	U	10	0.16	1	NA	11/17/09 00:12		179646	
Bromoform	10	U	10	0.42	1	NA	11/17/09 00:12		179646	
Bromomethane	10	U	10	0.53	1	NA	11/17/09 00:12		179646	
Carbon Disulfide	10	U	10	0.28	1	NA	11/17/09 00:12		179646	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/17/09 00:12		179646	
Chlorobenzene	10	U	10	0.24	1	NA	11/17/09 00:12		179646	
Chloroethane	10	U	10	0.36	1	NA	11/17/09 00:12		179646	
Chloroform	10	U	10	0.16	1	NA	11/17/09 00:12		179646	
Chloromethane	10	U	10	0.39	1	NA	11/17/09 00:12		179646	
Cyclohexane	10	U	10	0.22	1	NA	11/17/09 00:12		179646	
Dibromochloromethane	10	U	10	0.17	1	NA	11/17/09 00:12		179646	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/17/09 00:12		179646	
Dichloromethane	10	U	10	0.22	1	NA	11/17/09 00:12		179646	
Ethylbenzene	10	U	10	0.21	1	NA	11/17/09 00:12		179646	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/17/09 00:12		179646	
Methyl Acetate	10	U	10	0.36	1	NA	11/17/09 00:12		179646	

Comments:

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ0912195-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/17/09 00:12		179646	
Methylcyclohexane	10	U	10	0.33	1	NA	11/17/09 00:12		179646	
Styrene	10	U	10	0.18	1	NA	11/17/09 00:12		179646	
Tetrachloroethene (PCE)	10	U	10	0.22	1	NA	11/17/09 00:12		179646	
Toluene	10	U	10	0.27	1	NA	11/17/09 00:12		179646	
Trichloroethene (TCE)	10	U	10	0.28	1	NA	11/17/09 00:12		179646	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/17/09 00:12		179646	
Vinyl Chloride	10	U	10	0.30	1	NA	11/17/09 00:12		179646	
cis-1,2-Dichloroethene	10	U	10	0.21	1	NA	11/17/09 00:12		179646	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/17/09 00:12		179646	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/17/09 00:12		179646	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/17/09 00:12		179646	
o-Xylene	10	U	10	0.17	1	NA	11/17/09 00:12		179646	
m,p-Xylenes	10	U	10	0.29	1	NA	11/17/09 00:12		179646	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/17/09 00:12		179646	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/17/09 00:12		179646	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	101	76-114	11/17/09 00:12		
4-Bromofluorobenzene	94	86-115	11/17/09 00:12		
Toluene-d8	99	88-110	11/17/09 00:12		

Comments:

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/17/09 0012

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ0912195-01	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ0912206-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	10	U	10	0.28	1	NA	11/20/09 16:13		180418	
1,1,2,2-Tetrachloroethane	10	U	10	0.18	1	NA	11/20/09 16:13		180418	
1,1,2-Trichloroethane	10	U	10	0.25	1	NA	11/20/09 16:13		180418	
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.17	1	NA	11/20/09 16:13		180418	
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.34	1	NA	11/20/09 16:13		180418	
1,2,4-Trichlorobenzene	10	U	10	0.45	1	NA	11/20/09 16:13		180418	
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.36	1	NA	11/20/09 16:13		180418	
1,2-Dibromoethane	10	U	10	0.19	1	NA	11/20/09 16:13		180418	
1,2-Dichlorobenzene	10	U	10	0.25	1	NA	11/20/09 16:13		180418	
1,2-Dichloroethane	10	U	10	0.22	1	NA	11/20/09 16:13		180418	
1,2-Dichloropropane	10	U	10	0.67	1	NA	11/20/09 16:13		180418	
1,3-Dichlorobenzene	10	U	10	0.39	1	NA	11/20/09 16:13		180418	
1,4-Dichlorobenzene	10	U	10	0.42	1	NA	11/20/09 16:13		180418	
2-Butanone (MEK)	10	U	10	0.54	1	NA	11/20/09 16:13		180418	
2-Hexanone	10	U	10	0.59	1	NA	11/20/09 16:13		180418	
Acetone	10	U	10	1.3	1	NA	11/20/09 16:13		180418	
Benzene	10	U	10	0.20	1	NA	11/20/09 16:13		180418	
Bromodichloromethane	10	U	10	0.16	1	NA	11/20/09 16:13		180418	
Bromoform	10	U	10	0.42	1	NA	11/20/09 16:13		180418	
Bromomethane	10	U	10	0.53	1	NA	11/20/09 16:13		180418	
Carbon Disulfide	10	U	10	0.28	1	NA	11/20/09 16:13		180418	
Carbon Tetrachloride	10	U	10	0.22	1	NA	11/20/09 16:13		180418	
Chlorobenzene	10	U	10	0.24	1	NA	11/20/09 16:13		180418	
Chloroethane	10	U	10	0.36	1	NA	11/20/09 16:13		180418	
Chloroform	10	U	10	0.16	1	NA	11/20/09 16:13		180418	
Chloromethane	10	U	10	0.39	1	NA	11/20/09 16:13		180418	
Cyclohexane	10	U	10	0.22	1	NA	11/20/09 16:13		180418	
Dibromochloromethane	10	U	10	0.17	1	NA	11/20/09 16:13		180418	
Dichlorodifluoromethane (CFC 12)	10	U	10	0.59	1	NA	11/20/09 16:13		180418	
Dichloromethane	10	U	10	0.22	1	NA	11/20/09 16:13		180418	
Ethylbenzene	10	U	10	0.21	1	NA	11/20/09 16:13		180418	
Isopropylbenzene (Cumene)	10	U	10	0.23	1	NA	11/20/09 16:13		180418	
Methyl Acetate	10	U	10	0.36	1	NA	11/20/09 16:13		180418	

Comments:

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ0912206-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methyl tert-Butyl Ether	10	U	10	0.20	1	NA	11/20/09 16:13		180418	
Methylcyclohexane	10	U	10	0.33	1	NA	11/20/09 16:13		180418	
Styrene	10	U	10	0.18	1	NA	11/20/09 16:13		180418	
Tetrachloroethene (PCE)	10	U	10	0.22	1	NA	11/20/09 16:13		180418	
Toluene	10	U	10	0.27	1	NA	11/20/09 16:13		180418	
Trichloroethene (TCE)	10	U	10	0.28	1	NA	11/20/09 16:13		180418	
Trichlorofluoromethane (CFC 11)	10	U	10	0.17	1	NA	11/20/09 16:13		180418	
Vinyl Chloride	10	U	10	0.30	1	NA	11/20/09 16:13		180418	
cis-1,2-Dichloroethene	10	U	10	0.21	1	NA	11/20/09 16:13		180418	
cis-1,3-Dichloropropene	10	U	10	0.16	1	NA	11/20/09 16:13		180418	
trans-1,2-Dichloroethene	10	U	10	0.30	1	NA	11/20/09 16:13		180418	
trans-1,3-Dichloropropene	10	U	10	0.25	1	NA	11/20/09 16:13		180418	
o-Xylene	10	U	10	0.17	1	NA	11/20/09 16:13		180418	
m,p-Xylenes	10	U	10	0.29	1	NA	11/20/09 16:13		180418	
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.42	1	NA	11/20/09 16:13		180418	
4-Methyl-2-pentanone (MIBK)	10	U	10	0.60	1	NA	11/20/09 16:13		180418	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
1,2-Dichloroethane-d4	103	76-114	11/20/09 16:13		
4-Bromofluorobenzene	94	86-115	11/20/09 16:13		
Toluene-d8	97	88-110	11/20/09 16:13		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R0906509
Project:	Cole-Zaiser Site/16530332.00500	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/20/09 1613

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ0912206-01	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00500
Sample Matrix: Water

Service Request: R0906509
Date Analyzed: 11/17/09

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Units: µg/L
Basis: NA

Analysis Lot: 179646

Analyte Name	Lab Control Sample RQ0912195-02 Result	Expected	% Rec	% Rec Limits
1,1-Dichloroethene (1,1-DCE)	**53.1**	50.0	106	61 - 145
Benzene	**49.3**	50.0	99	76 - 127
Chlorobenzene	**51.4**	50.0	103	75 - 130
Toluene	**50.7**	50.0	101	76 - 125
Trichloroethene (TCE)	**48.9**	50.0	98	71 - 120

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00500
Sample Matrix: Water

Service Request: R0906509
Date Analyzed: 11/20/09

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Units: µg/L
Basis: NA

Analysis Lot: 180418

Analyte Name	Lab Control Sample RQ0912206-02 Result	Expected	% Rec	% Rec Limits
1,1-Dichloroethene (1,1-DCE)	49.7	50.0	99	61 - 145
Benzene	48.8	50.0	98	76 - 127
Chlorobenzene	50.2	50.0	100	75 - 130
Toluene	47.6	50.0	95	76 - 125
Trichloroethene (TCE)	48.0	50.0	96	71 - 120

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00500
Sample Matrix: Water

Service Request: R0906509
Date Analyzed: 11/21/09

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Units: µg/L
Basis: NA

Analysis Lot: 180418

Analyte Name	Lab Control Sample RQ0912206-03 Result	Expected	% Rec	Duplicate Lab Control Sample RQ0912206-04 Result	Expected	% Rec	% Rec Limits	RPD	RPD Limit
1,1-Dichloroethene (1,1-DCE)	**49.0**	50.0	98	**48.4**	50.0	97	61 - 145	1	14
Benzene	**47.6**	50.0	95	**46.5**	50.0	93	76 - 127	2	11
Chlorobenzene	**49.1**	50.0	98	**47.5**	50.0	95	75 - 130	3	13
Toluene	**46.5**	50.0	93	**45.6**	50.0	91	76 - 125	2	13
Trichloroethene (TCE)	**51.5**	50.0	103	**52.1**	50.0	104	71 - 120	1	14

Comments:

Columbia Analytical Services™ 1 Mustard Street, Suite 250 | Rochester, NY 14609 | 585-288-5380 | 585-288-8475 fax | www.caslab.com

August 09, 2010 Service Request No: R1003789

Leslie Voss
URS Corporation
8300 College Blvd.
Suite 200
Overland Park, KS 66210

Laboratory Results for: Cole-Zaiser Site/16530332.00100

Dear Leslie:

Enclosed are the results of the sample(s) submitted to our laboratory on July 15, 2010. For your reference, these analyses have been assigned our service request number **R1003789**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 129. You may also contact me via email at MPerry@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Michael K. Perry

Michael Perry
Laboratory Manager

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	URS Corporation	**Service Request No.:**	R1003789
Project:	Cole-Zaiser Site	**Project Number:**	1650332.00100
Sample Matrix:	Water	**Date Received:**	7/15/10

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier IV, ASP-B deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 7/15/10 and received at CAS on the same day in good condition as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CAS batching sheet for a cross reference between Client ID and CAS Lab ID #.

Volatile Organics

One water sample and a Trip Blank were analyzed for the Target Compound List (TCL) of Volatile Organics by Method OLM4.3. Any analyte detected was quantitated based on the closest internal standard and has been flagged with a "J" as estimated.

One additional water sample was analyzed for the drinking water list of volatile organics by EPA method 524.2.

All Tuning criteria for BFB were within limits.

The initial and continuing calibration criteria for the method were met.

All internal standard areas were within QC limits.

All sample surrogate recoveries were within QC limits for recovery.

All Blank Spike (LCS) recoveries were within QC limits.

No other analytical or QC problems were encountered with these analyses.

Semi-Volatile Organic Analysis

One water sample was analyzed for the TCL list of Semi-Volatile Organics by SW-846 Method 8270C.

All Tuning criteria for DFTPP were within QC limits.

All the initial and continuing calibration criteria were met.

All Internal Standard Areas were all within QC limits.

All sample surrogate recoveries were within QC limits for recovery.

The Blank Spike/Blank Spike duplicate (LCS/LCSD) recoveries were acceptable.

The Method Blanks associated with these samples was free of contamination.

No other analytical or QC problems were encountered.

Pesticide Analysis

One water sample was analyzed for TCL Pesticides by SW-846 method 8081.

All the initial and continuing calibration criteria were met.

All surrogate standard recoveries were within QC limits.

The Blank Spike/Blank Spike duplicate (LCS/LCSD) recoveries were all acceptable.

The Method Blanks associated with these samples was free of contamination.

No other analytical or QC problems were encountered.

PCB Analysis

One water sample was analyzed for Total PCBs by SW-846 method 8082.

All the initial and continuing calibration criteria were met.

All surrogate standard recoveries were within QC limits.

The Blank Spike/Blank Spike duplicate (LCS/LCSD) recoveries were all acceptable.

The Method Blanks associated with these samples was free of contamination.

No other analytical or QC problems were encountered.

Herbicide Analysis

One water sample was analyzed for a site List of Herbicides by SW-846 method 8151.

All the initial and continuing calibration criteria were met for all analytes.

The surrogate standard recovery for DCA was within QC acceptance limits.

All Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were within QC limits. All RPD's were within QC limits.

The Laboratory Blanks associated with these analyses were free of contamination.

All samples were extracted and analyzed within required holding times.

No other analytical or QC problems were encountered.

TPH Analysis

One water sample was analyzed for the Total Petroleum Hydrocarbons by NYS DOH method 310-13.

All the initial and continuing calibration criteria were met for all analytes.

The surrogate standard recoveries were within QC acceptance limits.

All Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were within QC limits. All RPD's were within QC limits.

The Laboratory Blanks associated with these analyses were free of contamination.

All samples were extracted and analyzed within required holding times.

No other analytical or QC problems were encountered.

Metals Analysis

One water sample was analyzed for a site list of Metals using SW-846 methods 6010C/6020/7470.

All Blank spike (LCS) recoveries were within limits. The CRDL was within QC limits for all metals.

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

CAS ASP/CLP Batching Form/Login Sheet

Client Proj #:	16530332.00100	Batch Complete:	Yes	Date Revised:	
Submission:	R1003789	Diskette Requested:	No	Date Due:	8/5/10
Client:	URS Corporation	Date:	7/19/10	Protocol:	SW846
Client Rep:	MPERRY	Custody Seal: Present/Absent:		Shipping No.:	
Project:	Cole-Zaiser Site	Chain of Custody: Present/Absent:		SDG #:	MW10A

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1003789-001	LOWRY-07/10	Water	8270C, 8082, 245.1, 524.2, 218.6, 200.7, 200.8, NY 310-13, 8151A, 8081A	7/15/10	7/15/10			
R1003789-002QC	MW10A-0710-01	Water	CLP-VOA OLM04.3	7/15/10	7/15/10			
R1003789-003	Trip Blank	Water	CLP-VOA OLM04.3	7/15/10	7/15/10			

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Folder Comments:

Columbia Analytical Services™

REPORT QUALIFIERS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.

CAS/Rochester Lab ID # for State Certifications[1]

NELAP Accredited
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Nebraska Accredited
Navy Facilities Engineering Service Center Approved
Nevada ID # NY-00032
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
Pennsylvania ID# 68-786
Rhode Island ID # 158
West Virginia ID # 292

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at www.caslab.com.

CHAIN OF CUSTODY RECORD

URS

PROJECT NO. 16530332.00500

SITE NAME Cole Zaiser Site, Amboy, NY

SAMPLERS (PRINT/SIGNATURE) John Boyd [signature]

DELIVERY SERVICE: Hand Deliver AIRBILL NO.:

LAB Columbia Analytical

COOLER 1 of 1

PAGE 1 of 1

LOCATION IDENTIFIER	DATE	TIME	COMP/GRAB	SAMPLE ID	MATRIX	TOTAL NO. # OF CONTAINERS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fuels [illegible]	[illegible]	[illegible]	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO.# (PRIMAS ONLY)
							16 oz / 8 oz Amb	8 oz Amb	Glass L. Tel	Glass Litre	Glass Litre	Glass Litre	40 ml VOA	40 ml VOA					
Lowry	7/15/10		Grab	Lowry-07/10	WG	16	2	1	4	2	2	2	3			N	–	–	–
~~–~~			~~Grab~~	~~Lowry-07/10 MS~~	~~WG~~											N	–	–	–
~~–~~			~~Grab~~	~~Lowry-07/10 SD~~	~~WG~~											N	–	–	–
MW-10A	7/15/10	1235	Grab	MW10A-0710-01	WG	3	–	–	–	–	–	–	–	3		N	–	–	–
MW-10A	7/15/10	1235	Grab	MW10A-0710-01 MS	WG	3	–	–	–	–	–	–	–	3		MS	–	–	–
MW-10A	7/15/10	1235	Grab	MW10A-0710-01MSD	WG	3	–	–	–	–	–	–	–	3		SD	–	–	–

R1003789

URS Corporation

AA - AMBIENT AIR SE - SEDIMENT SH - HAZARDOUS SOLID WASTE SL - SLUDGE WP - DRINKING WATER WW - WASTE WATER WG - GROUND WATER SO - SOIL DC - DRILL CUTTINGS WL - LEACHATE GS - SOIL GAS WC - DRILLING WATER WO - OCEAN WATER WS - SURFACE WATER WQ - WATER FIELD QC LH - HAZARDOUS LIQUID WASTE LF - FLOATING/FREE PRODUCT ON GW TABLE

TB# - TRIP BLANK SD# - MATRIX SPIKE DUPLICATE RB# - RINSE BLANK FR# - FIELD REPLICATE N# - NORMAL ENVIRONMENTAL SAMPLE MS# - MATRIX SPIKE (# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
[signature]	7/15/10	1635	[signature]	7/15/10	1635
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME

SPECIAL INSTRUCTIONS If question and to send results to Leslie Voss, URS Corporation, 8300 College Blvd, Suite 200, Overland Park, KS 66210, 913-344-1040

Mike Perry CAS PM

Distribution: Original accompanies shipment, copy to coordinator field files

URSF-075C/1 OF 1/CofCR/GCM

00007

Cooler Receipt And Preservation Check Form

Project/Client ARS Submission Number R1003789

Cooler received on 7/15 + 7/16/10 by: DR COURIER: CAS UPS FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	YES	NO			
2.	Were custody papers properly filled out (ink, signed, etc.)?	YES	NO			
3.	Did all bottles arrive in good condition (unbroken)?	YES	NO			
4.	Did any VOA vials have significant* air bubbles?	YES	NO	N/A		
5.	Were Ice or Ice packs present?	YES	NO			
6.	Where did the bottles originate?	CAS/ROC, CLIENT				
7.	Temperature of cooler(s) upon receipt:	7.6°	2.8			
	Is the temperature within 0° - 6° C?:	Yes	Yes	Yes	Yes	Yes
	If No, Explain Below	No	No	No	No	No

Date/Time Temperatures Taken: 7/15/10/1700

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition, Client Approval to Run Samples: _____

PC Secondary Review: MVP 7/19/10

Cooler Breakdown: Date: 7/16/10 by: AHA

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	YES	NO
2.	Did all bottle labels and tags agree with custody papers?	YES	NO
3.	Were correct containers used for the tests indicated?	YES	NO
4.	Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated		N/A

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH			WC92115I	4/12				
≤2	HNO_3	X		BDB26108H	6/11				
≤2	H_2SO_4								
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*	4109100	5/11				

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Cit-phos buffer soln: WC92214B exp 6/11

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 051010-1S, 061410-2X, 010410-2A, 0-075-001

Other Comments:

PC Secondary Review: MVP 8/9/10

*significant air bubbles are greater than 5-6 mm

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10
Sample Matrix:	Water	**Date Received:**	7/15/10
Sample Name:	LOWRY-07/10	**Units:**	µg/L
Lab Code:	R1003789-001	**Basis:**	NA

Purgeable Organic Compounds by GC/MS

Analytical Method: 524.2

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1,2-Tetrachloroethane	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,1,1-Trichloroethane (TCA)	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,1,2,2-Tetrachloroethane	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,1,2-Trichloroethane	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,1-Dichloroethene (1,1-DCE)	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,1-Dichloropropene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,2,3-Trichlorobenzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,2,3-Trichloropropane	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,2,4-Trichlorobenzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,2,4-Trimethylbenzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,2-Dibromo-3-chloropropane (DBCP)	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,2-Dibromoethane	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,2-Dichlorobenzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,2-Dichloroethane	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,3,5-Trimethylbenzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,3-Dichlorobenzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,3-Dichloropropane	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,4-Dichlorobenzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
2,2-Dichloropropane	0.50	U	0.50	1	NA	7/28/10 21:20		210356
2-Butanone (MEK)	5.0	U	5.0	1	NA	7/28/10 21:20		210356
2-Chlorotoluene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
2-Hexanone	5.0	U	5.0	1	NA	7/28/10 21:20		210356
4-Chlorotoluene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
p-Isopropyltoluene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Acetone	5.0	U	5.0	1	NA	7/28/10 21:20		210356
Benzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Bromobenzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Bromochloromethane	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Bromodichloromethane	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Bromoform	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Bromomethane	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Carbon Tetrachloride	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Chlorobenzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Chloroethane	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Chloroform	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Chloromethane	0.50	U	0.50	1	NA	7/28/10 21:20		210356

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10
Sample Matrix:	Water	**Date Received:**	7/15/10
Sample Name:	LOWRY-07/10	**Units:**	µg/L
Lab Code:	R1003789-001	**Basis:**	NA

Purgeable Organic Compounds by GC/MS

Analytical Method: 524.2

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
Dibromochloromethane	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Dibromomethane	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Dichlorodifluoromethane (CFC 12)	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Methylene Chloride	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Ethylbenzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Hexachlorobutadiene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Isopropylbenzene (Cumene)	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Naphthalene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Styrene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Tetrachloroethene (PCE)	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Toluene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Trichloroethene (TCE)	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Trichlorofluoromethane (CFC 11)	0.50	U	0.50	1	NA	7/28/10 21:20		210356
Vinyl Chloride	0.50	U	0.50	1	NA	7/28/10 21:20		210356
cis-1,2-Dichloroethene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
cis-1,3-Dichloropropene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
m,p-Xylenes	1.0	U	1.0	1	NA	7/28/10 21:20		210356
n-Butylbenzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
n-Propylbenzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
o-Xylene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
sec-Butylbenzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
tert-Butylbenzene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
trans-1,2-Dichloroethene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
trans-1,3-Dichloropropene	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,1-Dichloroethane (SPCC)	0.50	U	0.50	1	NA	7/28/10 21:20		210356
1,2-Dichloropropane (CCC)	0.50	U	0.50	1	NA	7/28/10 21:20		210356
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1	NA	7/28/10 21:20		210356

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichlorobenzene-d4	97	70-130	7/28/10 21:20	
4-Bromofluorobenzene	98	70-130	7/28/10 21:20	

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1006329-01	**Basis:**	NA

Purgeable Organic Compounds by GC/MS

Analytical Method: 524.2

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1,2-Tetrachloroethane	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,1,1-Trichloroethane (TCA)	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,1,2,2-Tetrachloroethane	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,1,2-Trichloroethane	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,1-Dichloroethene (1,1-DCE)	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,1-Dichloropropene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,2,3-Trichlorobenzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,2,3-Trichloropropane	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,2,4-Trichlorobenzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,2,4-Trimethylbenzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,2-Dibromo-3-chloropropane (DBCP)	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,2-Dibromoethane	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,2-Dichlorobenzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,2-Dichloroethane	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,3,5-Trimethylbenzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,3-Dichlorobenzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,3-Dichloropropane	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,4-Dichlorobenzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
2,2-Dichloropropane	0.50	U	0.50	1	NA	7/28/10 20:51		210356
2-Butanone (MEK)	5.0	U	5.0	1	NA	7/28/10 20:51		210356
2-Chlorotoluene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
2-Hexanone	5.0	U	5.0	1	NA	7/28/10 20:51		210356
4-Chlorotoluene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
p-Isopropyltoluene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Acetone	5.0	U	5.0	1	NA	7/28/10 20:51		210356
Benzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Bromobenzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Bromochloromethane	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Bromodichloromethane	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Bromoform	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Bromomethane	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Carbon Tetrachloride	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Chlorobenzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Chloroethane	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Chloroform	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Chloromethane	0.50	U	0.50	1	NA	7/28/10 20:51		210356

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1006329-01	**Basis:**	NA

Purgeable Organic Compounds by GC/MS

Analytical Method: 524.2

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
Dibromochloromethane	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Dibromomethane	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Dichlorodifluoromethane (CFC 12)	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Methylene Chloride	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Ethylbenzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Hexachlorobutadiene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Isopropylbenzene (Cumene)	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Naphthalene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Styrene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Tetrachloroethene (PCE)	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Toluene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Trichloroethene (TCE)	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Trichlorofluoromethane (CFC 11)	0.50	U	0.50	1	NA	7/28/10 20:51		210356
Vinyl Chloride	0.50	U	0.50	1	NA	7/28/10 20:51		210356
cis-1,2-Dichloroethene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
cis-1,3-Dichloropropene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
m,p-Xylenes	1.0	U	1.0	1	NA	7/28/10 20:51		210356
n-Butylbenzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
n-Propylbenzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
o-Xylene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
sec-Butylbenzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
tert-Butylbenzene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
trans-1,2-Dichloroethene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
trans-1,3-Dichloropropene	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,1-Dichloroethane (SPCC)	0.50	U	0.50	1	NA	7/28/10 20:51		210356
1,2-Dichloropropane (CCC)	0.50	U	0.50	1	NA	7/28/10 20:51		210356
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1	NA	7/28/10 20:51		210356

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichlorobenzene-d4	97	70-130	7/28/10 20:51	
4-Bromofluorobenzene	97	70-130	7/28/10 20:51	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00100
Sample Matrix: Water

Service Request: R1003789
Date Analyzed: 7/28/10

Lab Control Sample Summary
Purgeable Organic Compounds by GC/MS

Analytical Method: 524.2

Units: µg/L
Basis: NA

Analysis Lot: 210356

Lab Control Sample
RQ1006329-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	**5.09**	5.00	102	70 - 130
1,1,1-Trichloroethane (TCA)	**5.04**	5.00	101	70 - 130
1,1,2,2-Tetrachloroethane	**5.28**	5.00	106	70 - 130
1,1,2-Trichloroethane	**5.23**	5.00	105	70 - 130
1,1-Dichloroethene (1,1-DCE)	**5.03**	5.00	101	70 - 130
1,1-Dichloropropene	**5.26**	5.00	105	70 - 130
1,2,3-Trichlorobenzene	**5.18**	5.00	104	70 - 130
1,2,3-Trichloropropane	**5.22**	5.00	104	70 - 130
1,2,4-Trichlorobenzene	**5.49**	5.00	110	70 - 130
1,2,4-Trimethylbenzene	**5.30**	5.00	106	70 - 130
1,2-Dibromo-3-chloropropane (DBCP)	**5.42**	5.00	108	70 - 130
1,2-Dibromoethane	**5.20**	5.00	104	70 - 130
1,2-Dichlorobenzene	**5.21**	5.00	104	70 - 130
1,2-Dichloroethane	**5.13**	5.00	103	70 - 130
1,3,5-Trimethylbenzene	**5.10**	5.00	102	70 - 130
1,3-Dichlorobenzene	**5.14**	5.00	103	70 - 130
1,3-Dichloropropane	**5.07**	5.00	101	70 - 130
1,4-Dichlorobenzene	**5.17**	5.00	103	70 - 130
2,2-Dichloropropane	**5.06**	5.00	101	70 - 130
2-Butanone (MEK)	**10.8**	10.0	108	70 - 130
2-Chlorotoluene	**5.15**	5.00	103	70 - 130
2-Hexanone	**10.7**	10.0	107	70 - 130
4-Chlorotoluene	**5.19**	5.00	104	70 - 130
p-Isopropyltoluene	**5.16**	5.00	103	70 - 130
Acetone	**10.6**	10.0	106	70 - 130
Benzene	**5.06**	5.00	101	70 - 130
Bromobenzene	**5.31**	5.00	106	70 - 130
Bromochloromethane	**5.09**	5.00	102	70 - 130
Bromodichloromethane	**5.08**	5.00	102	70 - 130
Bromoform	**5.18**	5.00	104	70 - 130
Bromomethane	**4.75**	5.00	95	70 - 130
Carbon Tetrachloride	**5.05**	5.00	101	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00100
Sample Matrix: Water

Service Request: R1003789
Date Analyzed: 7/28/10

Lab Control Sample Summary
Purgeable Organic Compounds by GC/MS

Analytical Method: 524.2

Units: µg/L
Basis: NA

Analysis Lot: 210356

Analyte Name	Lab Control Sample RQ1006329-02 Result	Spike Amount	% Rec	% Rec Limits
Chlorobenzene	**5.36**	5.00	107	70 - 130
Chloroethane	**5.10**	5.00	102	70 - 130
Chloroform	**5.26**	5.00	105	70 - 130
Chloromethane	**4.61**	5.00	92	70 - 130
Dibromochloromethane	**5.12**	5.00	102	70 - 130
Dibromomethane	**5.36**	5.00	107	70 - 130
Dichlorodifluoromethane (CFC 12)	**3.73**	5.00	75	70 - 130
Methylene Chloride	**5.03**	5.00	101	70 - 130
Ethylbenzene	**5.26**	5.00	105	70 - 130
Hexachlorobutadiene	**5.30**	5.00	106	70 - 130
Isopropylbenzene (Cumene)	**5.57**	5.00	111	70 - 130
Naphthalene	**5.43**	5.00	109	70 - 130
Styrene	**5.11**	5.00	102	70 - 130
Tetrachloroethene (PCE)	**5.03**	5.00	101	70 - 130
Toluene	**5.31**	5.00	106	70 - 130
Trichloroethene (TCE)	**5.01**	5.00	100	70 - 130
Trichlorofluoromethane (CFC 11)	**4.97**	5.00	99	70 - 130
Vinyl Chloride	**5.07**	5.00	101	70 - 130
cis-1,2-Dichloroethene	**5.06**	5.00	101	70 - 130
cis-1,3-Dichloropropene	**4.89**	5.00	98	70 - 130
m,p-Xylenes	**10.3**	10.0	103	70 - 130
n-Butylbenzene	**5.19**	5.00	104	70 - 130
n-Propylbenzene	**5.29**	5.00	106	70 - 130
o-Xylene	**5.28**	5.00	106	70 - 130
sec-Butylbenzene	**5.09**	5.00	102	70 - 130
tert-Butylbenzene	**5.05**	5.00	101	70 - 130
trans-1,2-Dichloroethene	**5.15**	5.00	103	70 - 130
trans-1,3-Dichloropropene	**5.04**	5.00	101	70 - 130
1,1-Dichloroethane (SPCC)	**5.11**	5.00	102	70 - 130
1,2-Dichloropropane (CCC)	**5.32**	5.00	106	70 - 130
4-Methyl-2-pentanone (MIBK)	**10.2**	10.0	102	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10 1235
Sample Matrix:	Water	**Date Received:**	7/15/10
Sample Name:	MW10A-0710-01	**Units:**	µg/L
Lab Code:	R1003789-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1-Trichloroethane (TCA)	1.7	J	10	0.11	1	NA	7/26/10 18:32		209903
1,1,2,2-Tetrachloroethane	10	U	10	0.090	1	NA	7/26/10 18:32		209903
1,1,2-Trichloroethane	10	U	10	0.18	1	NA	7/26/10 18:32		209903
1,1-Dichloroethane (1,1-DCA)	4.9	J	10	0.060	1	NA	7/26/10 18:32		209903
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.10	1	NA	7/26/10 18:32		209903
1,2,4-Trichlorobenzene	10	U	10	0.090	1	NA	7/26/10 18:32		209903
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.21	1	NA	7/26/10 18:32		209903
1,2-Dibromoethane	10	U	10	0.15	1	NA	7/26/10 18:32		209903
1,2-Dichlorobenzene	10	U	10	0.080	1	NA	7/26/10 18:32		209903
1,2-Dichloroethane	10	U	10	0.15	1	NA	7/26/10 18:32		209903
1,2-Dichloropropane	10	U	10	0.13	1	NA	7/26/10 18:32		209903
1,3-Dichlorobenzene	10	U	10	0.050	1	NA	7/26/10 18:32		209903
1,4-Dichlorobenzene	10	U	10	0.12	1	NA	7/26/10 18:32		209903
2-Butanone (MEK)	10	U	10	0.37	1	NA	7/26/10 18:32		209903
2-Hexanone	10	U	10	0.50	1	NA	7/26/10 18:32		209903
Acetone	4.2	J	10	0.80	1	NA	7/26/10 18:32		209903
Benzene	10	U	10	0.16	1	NA	7/26/10 18:32		209903
Bromodichloromethane	10	U	10	0.12	1	NA	7/26/10 18:32		209903
Bromoform	10	U	10	0.080	1	NA	7/26/10 18:32		209903
Bromomethane	10	U	10	0.31	1	NA	7/26/10 18:32		209903
Carbon Disulfide	10	U	10	0.060	1	NA	7/26/10 18:32		209903
Carbon Tetrachloride	10	U	10	0.070	1	NA	7/26/10 18:32		209903
Chlorobenzene	10	U	10	0.21	1	NA	7/26/10 18:32		209903
Chloroethane	10	U	10	0.18	1	NA	7/26/10 18:32		209903
Chloroform	10	U	10	0.090	1	NA	7/26/10 18:32		209903
Chloromethane	10	U	10	0.11	1	NA	7/26/10 18:32		209903
Cyclohexane	10	U	10	0.15	1	NA	7/26/10 18:32		209903
Dibromochloromethane	10	U	10	0.080	1	NA	7/26/10 18:32		209903
Dichlorodifluoromethane (CFC 12)	10	U	10	0.18	1	NA	7/26/10 18:32		209903
Dichloromethane	10	U	10	0.010	1	NA	7/26/10 18:32		209903
Ethylbenzene	10	U	10	0.090	1	NA	7/26/10 18:32		209903
Isopropylbenzene (Cumene)	10	U	10	0.080	1	NA	7/26/10 18:32		209903
Methyl Acetate	10	U	10	0.11	1	NA	7/26/10 18:32		209903
Methyl tert-Butyl Ether	10	U	10	0.090	1	NA	7/26/10 18:32		209903
Methylcyclohexane	10	U	10	0.090	1	NA	7/26/10 18:32		209903
Styrene	10	U	10	0.070	1	NA	7/26/10 18:32		209903

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10 1235
Sample Matrix:	Water	**Date Received:**	7/15/10
Sample Name:	MW10A-0710-01	**Units:**	µg/L
Lab Code:	R1003789-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
Tetrachloroethene (PCE)	1.4	J	10	0.12	1	NA	7/26/10 18:32		209903
Toluene	10	U	10	0.12	1	NA	7/26/10 18:32		209903
Trichloroethene (TCE)	0.67	J	10	0.13	1	NA	7/26/10 18:32		209903
Trichlorofluoromethane (CFC 11)	10	U	10	0.070	1	NA	7/26/10 18:32		209903
Vinyl Chloride	10	U	10	0.12	1	NA	7/26/10 18:32		209903
cis-1,2-Dichloroethene	0.78	J	10	0.14	1	NA	7/26/10 18:32		209903
cis-1,3-Dichloropropene	10	U	10	0.070	1	NA	7/26/10 18:32		209903
trans-1,2-Dichloroethene	10	U	10	0.12	1	NA	7/26/10 18:32		209903
trans-1,3-Dichloropropene	10	U	10	0.070	1	NA	7/26/10 18:32		209903
o-Xylene	10	U	10	0.070	1	NA	7/26/10 18:32		209903
m,p-Xylenes	10	U	10	0.080	1	NA	7/26/10 18:32		209903
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.16	1	NA	7/26/10 18:32		209903
4-Methyl-2-pentanone (MIBK)	10	U	10	0.50	1	NA	7/26/10 18:32		209903

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	76-114	7/26/10 18:32	
4-Bromofluorobenzene	99	86-115	7/26/10 18:32	
Toluene-d8	101	88-110	7/26/10 18:32	

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10 0000
Sample Matrix:	Water	**Date Received:**	7/15/10
Sample Name:	Trip Blank	**Units:**	µg/L
Lab Code:	R1003789-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1-Trichloroethane (TCA)	10	U	10	0.11	1	NA	7/21/10 16:27		209222
1,1,2,2-Tetrachloroethane	10	U	10	0.090	1	NA	7/21/10 16:27		209222
1,1,2-Trichloroethane	10	U	10	0.18	1	NA	7/21/10 16:27		209222
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.060	1	NA	7/21/10 16:27		209222
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.10	1	NA	7/21/10 16:27		209222
1,2,4-Trichlorobenzene	10	U	10	0.090	1	NA	7/21/10 16:27		209222
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.21	1	NA	7/21/10 16:27		209222
1,2-Dibromoethane	10	U	10	0.15	1	NA	7/21/10 16:27		209222
1,2-Dichlorobenzene	10	U	10	0.080	1	NA	7/21/10 16:27		209222
1,2-Dichloroethane	10	U	10	0.15	1	NA	7/21/10 16:27		209222
1,2-Dichloropropane	10	U	10	0.13	1	NA	7/21/10 16:27		209222
1,3-Dichlorobenzene	10	U	10	0.050	1	NA	7/21/10 16:27		209222
1,4-Dichlorobenzene	10	U	10	0.12	1	NA	7/21/10 16:27		209222
2-Butanone (MEK)	10	U	10	0.37	1	NA	7/21/10 16:27		209222
2-Hexanone	10	U	10	0.50	1	NA	7/21/10 16:27		209222
Acetone	10	U	10	0.80	1	NA	7/21/10 16:27		209222
Benzene	10	U	10	0.16	1	NA	7/21/10 16:27		209222
Bromodichloromethane	10	U	10	0.12	1	NA	7/21/10 16:27		209222
Bromoform	10	U	10	0.080	1	NA	7/21/10 16:27		209222
Bromomethane	10	U	10	0.31	1	NA	7/21/10 16:27		209222
Carbon Disulfide	10	U	10	0.060	1	NA	7/21/10 16:27		209222
Carbon Tetrachloride	10	U	10	0.070	1	NA	7/21/10 16:27		209222
Chlorobenzene	10	U	10	0.21	1	NA	7/21/10 16:27		209222
Chloroethane	10	U	10	0.18	1	NA	7/21/10 16:27		209222
Chloroform	10	U	10	0.090	1	NA	7/21/10 16:27		209222
Chloromethane	10	U	10	0.11	1	NA	7/21/10 16:27		209222
Cyclohexane	10	U	10	0.15	1	NA	7/21/10 16:27		209222
Dibromochloromethane	10	U	10	0.080	1	NA	7/21/10 16:27		209222
Dichlorodifluoromethane (CFC 12)	10	U	10	0.18	1	NA	7/21/10 16:27		209222
Dichloromethane	10	U	10	0.010	1	NA	7/21/10 16:27		209222
Ethylbenzene	10	U	10	0.090	1	NA	7/21/10 16:27		209222
Isopropylbenzene (Cumene)	10	U	10	0.080	1	NA	7/21/10 16:27		209222
Methyl Acetate	10	U	10	0.11	1	NA	7/21/10 16:27		209222
Methyl tert-Butyl Ether	10	U	10	0.090	1	NA	7/21/10 16:27		209222
Methylcyclohexane	10	U	10	0.090	1	NA	7/21/10 16:27		209222
Styrene	10	U	10	0.070	1	NA	7/21/10 16:27		209222

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10 0000
Sample Matrix:	Water	**Date Received:**	7/15/10
Sample Name:	Trip Blank	**Units:**	µg/L
Lab Code:	R1003789-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
Tetrachloroethene (PCE)	10	U	10	0.12	1	NA	7/21/10 16:27		209222
Toluene	10	U	10	0.12	1	NA	7/21/10 16:27		209222
Trichloroethene (TCE)	10	U	10	0.13	1	NA	7/21/10 16:27		209222
Trichlorofluoromethane (CFC 11)	10	U	10	0.070	1	NA	7/21/10 16:27		209222
Vinyl Chloride	10	U	10	0.12	1	NA	7/21/10 16:27		209222
cis-1,2-Dichloroethene	10	U	10	0.14	1	NA	7/21/10 16:27		209222
cis-1,3-Dichloropropene	10	U	10	0.070	1	NA	7/21/10 16:27		209222
trans-1,2-Dichloroethene	10	U	10	0.12	1	NA	7/21/10 16:27		209222
trans-1,3-Dichloropropene	10	U	10	0.070	1	NA	7/21/10 16:27		209222
o-Xylene	10	U	10	0.070	1	NA	7/21/10 16:27		209222
m,p-Xylenes	10	U	10	0.080	1	NA	7/21/10 16:27		209222
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.16	1	NA	7/21/10 16:27		209222
4-Methyl-2-pentanone (MIBK)	10	U	10	0.50	1	NA	7/21/10 16:27		209222

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	76-114	7/21/10 16:27	
4-Bromofluorobenzene	87	86-115	7/21/10 16:27	
Toluene-d8	94	88-110	7/21/10 16:27	

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1006274-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1-Trichloroethane (TCA)	10	U	10	0.11	1	NA	7/21/10 12:35		209222
1,1,2,2-Tetrachloroethane	10	U	10	0.090	1	NA	7/21/10 12:35		209222
1,1,2-Trichloroethane	10	U	10	0.18	1	NA	7/21/10 12:35		209222
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.060	1	NA	7/21/10 12:35		209222
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.10	1	NA	7/21/10 12:35		209222
1,2,4-Trichlorobenzene	10	U	10	0.090	1	NA	7/21/10 12:35		209222
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.21	1	NA	7/21/10 12:35		209222
1,2-Dibromoethane	10	U	10	0.15	1	NA	7/21/10 12:35		209222
1,2-Dichlorobenzene	10	U	10	0.080	1	NA	7/21/10 12:35		209222
1,2-Dichloroethane	10	U	10	0.15	1	NA	7/21/10 12:35		209222
1,2-Dichloropropane	10	U	10	0.13	1	NA	7/21/10 12:35		209222
1,3-Dichlorobenzene	10	U	10	0.050	1	NA	7/21/10 12:35		209222
1,4-Dichlorobenzene	10	U	10	0.12	1	NA	7/21/10 12:35		209222
2-Butanone (MEK)	10	U	10	0.37	1	NA	7/21/10 12:35		209222
2-Hexanone	10	U	10	0.50	1	NA	7/21/10 12:35		209222
Acetone	10	U	10	0.80	1	NA	7/21/10 12:35		209222
Benzene	10	U	10	0.16	1	NA	7/21/10 12:35		209222
Bromodichloromethane	10	U	10	0.12	1	NA	7/21/10 12:35		209222
Bromoform	10	U	10	0.080	1	NA	7/21/10 12:35		209222
Bromomethane	10	U	10	0.31	1	NA	7/21/10 12:35		209222
Carbon Disulfide	10	U	10	0.060	1	NA	7/21/10 12:35		209222
Carbon Tetrachloride	10	U	10	0.070	1	NA	7/21/10 12:35		209222
Chlorobenzene	10	U	10	0.21	1	NA	7/21/10 12:35		209222
Chloroethane	10	U	10	0.18	1	NA	7/21/10 12:35		209222
Chloroform	10	U	10	0.090	1	NA	7/21/10 12:35		209222
Chloromethane	10	U	10	0.11	1	NA	7/21/10 12:35		209222
Cyclohexane	10	U	10	0.15	1	NA	7/21/10 12:35		209222
Dibromochloromethane	10	U	10	0.080	1	NA	7/21/10 12:35		209222
Dichlorodifluoromethane (CFC 12)	10	U	10	0.18	1	NA	7/21/10 12:35		209222
Dichloromethane	10	U	10	0.010	1	NA	7/21/10 12:35		209222
Ethylbenzene	10	U	10	0.090	1	NA	7/21/10 12:35		209222
Isopropylbenzene (Cumene)	10	U	10	0.080	1	NA	7/21/10 12:35		209222
Methyl Acetate	10	U	10	0.11	1	NA	7/21/10 12:35		209222
Methyl tert-Butyl Ether	10	U	10	0.090	1	NA	7/21/10 12:35		209222
Methylcyclohexane	10	U	10	0.090	1	NA	7/21/10 12:35		209222
Styrene	10	U	10	0.070	1	NA	7/21/10 12:35		209222

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1006274-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
Tetrachloroethene (PCE)	10	U	10	0.12	1	NA	7/21/10 12:35		209222
Toluene	10	U	10	0.12	1	NA	7/21/10 12:35		209222
Trichloroethene (TCE)	10	U	10	0.13	1	NA	7/21/10 12:35		209222
Trichlorofluoromethane (CFC 11)	10	U	10	0.070	1	NA	7/21/10 12:35		209222
Vinyl Chloride	10	U	10	0.12	1	NA	7/21/10 12:35		209222
cis-1,2-Dichloroethene	10	U	10	0.14	1	NA	7/21/10 12:35		209222
cis-1,3-Dichloropropene	10	U	10	0.070	1	NA	7/21/10 12:35		209222
trans-1,2-Dichloroethene	10	U	10	0.12	1	NA	7/21/10 12:35		209222
trans-1,3-Dichloropropene	10	U	10	0.070	1	NA	7/21/10 12:35		209222
o-Xylene	10	U	10	0.070	1	NA	7/21/10 12:35		209222
m,p-Xylenes	10	U	10	0.080	1	NA	7/21/10 12:35		209222
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.16	1	NA	7/21/10 12:35		209222
4-Methyl-2-pentanone (MIBK)	10	U	10	0.50	1	NA	7/21/10 12:35		209222

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	76-114	7/21/10 12:35	
4-Bromofluorobenzene	89	86-115	7/21/10 12:35	
Toluene-d8	96	88-110	7/21/10 12:35	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1006283-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1-Trichloroethane (TCA)	10	U	10	0.11	1	NA	7/26/10 17:36		209903
1,1,2,2-Tetrachloroethane	10	U	10	0.090	1	NA	7/26/10 17:36		209903
1,1,2-Trichloroethane	10	U	10	0.18	1	NA	7/26/10 17:36		209903
1,1-Dichloroethane (1,1-DCA)	10	U	10	0.060	1	NA	7/26/10 17:36		209903
1,1-Dichloroethene (1,1-DCE)	10	U	10	0.10	1	NA	7/26/10 17:36		209903
1,2,4-Trichlorobenzene	**0.43**	J	10	0.090	1	NA	7/26/10 17:36		209903
1,2-Dibromo-3-chloropropane (DBCP)	10	U	10	0.21	1	NA	7/26/10 17:36		209903
1,2-Dibromoethane	10	U	10	0.15	1	NA	7/26/10 17:36		209903
1,2-Dichlorobenzene	10	U	10	0.080	1	NA	7/26/10 17:36		209903
1,2-Dichloroethane	10	U	10	0.15	1	NA	7/26/10 17:36		209903
1,2-Dichloropropane	10	U	10	0.13	1	NA	7/26/10 17:36		209903
1,3-Dichlorobenzene	10	U	10	0.050	1	NA	7/26/10 17:36		209903
1,4-Dichlorobenzene	10	U	10	0.12	1	NA	7/26/10 17:36		209903
2-Butanone (MEK)	10	U	10	0.37	1	NA	7/26/10 17:36		209903
2-Hexanone	10	U	10	0.50	1	NA	7/26/10 17:36		209903
Acetone	10	U	10	0.80	1	NA	7/26/10 17:36		209903
Benzene	10	U	10	0.16	1	NA	7/26/10 17:36		209903
Bromodichloromethane	10	U	10	0.12	1	NA	7/26/10 17:36		209903
Bromoform	10	U	10	0.080	1	NA	7/26/10 17:36		209903
Bromomethane	10	U	10	0.31	1	NA	7/26/10 17:36		209903
Carbon Disulfide	10	U	10	0.060	1	NA	7/26/10 17:36		209903
Carbon Tetrachloride	10	U	10	0.070	1	NA	7/26/10 17:36		209903
Chlorobenzene	10	U	10	0.21	1	NA	7/26/10 17:36		209903
Chloroethane	10	U	10	0.18	1	NA	7/26/10 17:36		209903
Chloroform	10	U	10	0.090	1	NA	7/26/10 17:36		209903
Chloromethane	10	U	10	0.11	1	NA	7/26/10 17:36		209903
Cyclohexane	10	U	10	0.15	1	NA	7/26/10 17:36		209903
Dibromochloromethane	10	U	10	0.080	1	NA	7/26/10 17:36		209903
Dichlorodifluoromethane (CFC 12)	10	U	10	0.18	1	NA	7/26/10 17:36		209903
Dichloromethane	10	U	10	0.010	1	NA	7/26/10 17:36		209903
Ethylbenzene	10	U	10	0.090	1	NA	7/26/10 17:36		209903
Isopropylbenzene (Cumene)	10	U	10	0.080	1	NA	7/26/10 17:36		209903
Methyl Acetate	10	U	10	0.11	1	NA	7/26/10 17:36		209903
Methyl tert-Butyl Ether	10	U	10	0.090	1	NA	7/26/10 17:36		209903
Methylcyclohexane	10	U	10	0.090	1	NA	7/26/10 17:36		209903
Styrene	10	U	10	0.070	1	NA	7/26/10 17:36		209903

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1006283-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
Tetrachloroethene (PCE)	10	U	10	0.12	1	NA	7/26/10 17:36		209903
Toluene	10	U	10	0.12	1	NA	7/26/10 17:36		209903
Trichloroethene (TCE)	10	U	10	0.13	1	NA	7/26/10 17:36		209903
Trichlorofluoromethane (CFC 11)	10	U	10	0.070	1	NA	7/26/10 17:36		209903
Vinyl Chloride	10	U	10	0.12	1	NA	7/26/10 17:36		209903
cis-1,2-Dichloroethene	10	U	10	0.14	1	NA	7/26/10 17:36		209903
cis-1,3-Dichloropropene	10	U	10	0.070	1	NA	7/26/10 17:36		209903
trans-1,2-Dichloroethene	10	U	10	0.12	1	NA	7/26/10 17:36		209903
trans-1,3-Dichloropropene	10	U	10	0.070	1	NA	7/26/10 17:36		209903
o-Xylene	10	U	10	0.070	1	NA	7/26/10 17:36		209903
m,p-Xylenes	10	U	10	0.080	1	NA	7/26/10 17:36		209903
1,1,2-Trichlorotrifluoroethane (CFC 113)	10	U	10	0.16	1	NA	7/26/10 17:36		209903
4-Methyl-2-pentanone (MIBK)	10	U	10	0.50	1	NA	7/26/10 17:36		209903

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	76-114	7/26/10 17:36	
4-Bromofluorobenzene	99	86-115	7/26/10 17:36	
Toluene-d8	100	88-110	7/26/10 17:36	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10
Sample Matrix:	Water	**Date Received:**	7/15/10
		Date Analyzed:	7/26/10

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	MW10A-0710-01	**Units:**	µg/L
Lab Code:	R1003789-002	**Basis:**	NA

Analytical Method: CLP-VOA OLM04.3

		MW10A-0710-01MS Matrix Spike RQ1006283-03			MW10A-0710-01DMS Duplicate Matrix Spike RQ1006283-04					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1-Dichloroethene (1,1-DCE)	ND	54.2	50.0	108	53.6	50.0	107	61 - 145	1	14
Benzene	ND	51.5	50.0	103	49.3	50.0	99	76 - 127	4	11
Chlorobenzene	ND	48.4	50.0	97	47.7	50.0	95	75 - 130	1	13
Toluene	ND	49.1	50.0	98	48.5	50.0	97	76 - 125	1	13
Trichloroethene (TCE)	0.67	49.4	50.0	97	48.1	50.0	95	71 - 120	3	14

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00100
Sample Matrix: Water

Service Request: R1003789
Date Analyzed: 7/21/10

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Units: µg/L
Basis: NA

Analysis Lot: 209222

Analyte Name	Lab Control Sample RQ1006274-02 Result	Spike Amount	% Rec	% Rec Limits
1,1-Dichloroethene (1,1-DCE)	**50.3**	50.0	101	61 - 145
Benzene	**47.8**	50.0	96	76 - 127
Chlorobenzene	**48.6**	50.0	97	75 - 130
Toluene	**47.6**	50.0	95	76 - 125
Trichloroethene (TCE)	**46.6**	50.0	93	71 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00100
Sample Matrix: Water

Service Request: R1003789
Date Analyzed: 7/26/10

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: CLP-VOA OLM04.3

Units: µg/L
Basis: NA

Analysis Lot: 209903

Lab Control Sample
RQ1006283-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1-Dichloroethene (1,1-DCE)	**52.5**	50.0	105	61 - 145
Benzene	**49.0**	50.0	98	76 - 127
Chlorobenzene	**47.6**	50.0	95	75 - 130
Toluene	**47.9**	50.0	96	76 - 125
Trichloroethene (TCE)	**46.7**	50.0	93	71 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10
Sample Matrix:	Water	**Date Received:**	7/15/10
Sample Name:	LOWRY-07/10	**Units:**	µg/L
Lab Code:	R1003789-001	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,2,4-Trichlorobenzene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
1,2-Dichlorobenzene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
1,3-Dichlorobenzene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
1,4-Dichlorobenzene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
2,4,5-Trichlorophenol	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
2,4,6-Trichlorophenol	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
2,4-Dichlorophenol	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
2,4-Dimethylphenol	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
2,4-Dinitrophenol	47	U	47	1	7/19/10	7/26/10 11:50	115591	209916
2,4-Dinitrotoluene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
2,6-Dinitrotoluene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
2-Chloronaphthalene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
2-Chlorophenol	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
2-Methylnaphthalene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
2-Methylphenol	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
2-Nitroaniline	47	U	47	1	7/19/10	7/26/10 11:50	115591	209916
2-Nitrophenol	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
3,3'-Dichlorobenzidine	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
3- and 4-Methylphenol Coelution	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
3-Nitroaniline	47	U	47	1	7/19/10	7/26/10 11:50	115591	209916
4,6-Dinitro-2-methylphenol	47	U	47	1	7/19/10	7/26/10 11:50	115591	209916
4-Bromophenyl Phenyl Ether	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
4-Chloro-3-methylphenol	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
4-Chloroaniline	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
4-Chlorophenyl Phenyl Ether	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
4-Nitroaniline	47	U	47	1	7/19/10	7/26/10 11:50	115591	209916
4-Nitrophenol	47	U	47	1	7/19/10	7/26/10 11:50	115591	209916
Acenaphthene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Acenaphthylene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Anthracene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Benz(a)anthracene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Benzo(a)pyrene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Benzo(b)fluoranthene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Benzo(g,h,i)perylene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Benzo(k)fluoranthene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10
Sample Matrix:	Water	**Date Received:**	7/15/10
Sample Name:	LOWRY-07/10	**Units:**	µg/L
Lab Code:	R1003789-001	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
Benzyl Alcohol	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
2,2'-Oxybis(1-chloropropane)	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Bis(2-chloroethoxy)methane	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Bis(2-chloroethyl) Ether	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Bis(2-ethylhexyl) Phthalate	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Butyl Benzyl Phthalate	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Carbazole	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Chrysene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Di-n-butyl Phthalate	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Di-n-octyl Phthalate	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Dibenz(a,h)anthracene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Dibenzofuran	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Diethyl Phthalate	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Dimethyl Phthalate	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Fluoranthene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Fluorene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Hexachlorobenzene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Hexachlorobutadiene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Hexachlorocyclopentadiene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Hexachloroethane	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Indeno(1,2,3-cd)pyrene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Isophorone	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
N-Nitrosodi-n-propylamine	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
N-Nitrosodimethylamine	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
N-Nitrosodiphenylamine	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Naphthalene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Nitrobenzene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Pentachlorophenol (PCP)	47	U	47	1	7/19/10	7/26/10 11:50	115591	209916
Phenanthrene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Phenol	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916
Pyrene	9.4	U	9.4	1	7/19/10	7/26/10 11:50	115591	209916

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10
Sample Matrix:	Water	**Date Received:**	7/15/10
Sample Name:	LOWRY-07/10	**Units:**	Percent
Lab Code:	R1003789-001	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	82	28-157	7/26/10 11:50	
2-Fluorobiphenyl	78	37-118	7/26/10 11:50	
2-Fluorophenol	41	12-84	7/26/10 11:50	
Nitrobenzene-d5	78	38-120	7/26/10 11:50	
Phenol-d6	26	10-74	7/26/10 11:50	
p-Terphenyl-d14	106	40-133	7/26/10 11:50	

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1005805-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,2,4-Trichlorobenzene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
1,2-Dichlorobenzene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
1,3-Dichlorobenzene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
1,4-Dichlorobenzene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
2,4,5-Trichlorophenol	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
2,4,6-Trichlorophenol	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
2,4-Dichlorophenol	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
2,4-Dimethylphenol	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
2,4-Dinitrophenol	50	U	50	1	7/19/10	7/22/10 17:06	115591	209654
2,4-Dinitrotoluene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
2,6-Dinitrotoluene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
2-Chloronaphthalene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
2-Chlorophenol	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
2-Methylnaphthalene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
2-Methylphenol	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
2-Nitroaniline	50	U	50	1	7/19/10	7/22/10 17:06	115591	209654
2-Nitrophenol	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
3,3'-Dichlorobenzidine	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
3- and 4-Methylphenol Coelution	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
3-Nitroaniline	50	U	50	1	7/19/10	7/22/10 17:06	115591	209654
4,6-Dinitro-2-methylphenol	50	U	50	1	7/19/10	7/22/10 17:06	115591	209654
4-Bromophenyl Phenyl Ether	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
4-Chloro-3-methylphenol	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
4-Chloroaniline	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
4-Chlorophenyl Phenyl Ether	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
4-Nitroaniline	50	U	50	1	7/19/10	7/22/10 17:06	115591	209654
4-Nitrophenol	50	U	50	1	7/19/10	7/22/10 17:06	115591	209654
Acenaphthene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Acenaphthylene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Anthracene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Benz(a)anthracene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Benzo(a)pyrene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Benzo(b)fluoranthene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Benzo(g,h,i)perylene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Benzo(k)fluoranthene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1005805-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
Benzyl Alcohol	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
2,2'-Oxybis(1-chloropropane)	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Bis(2-chloroethoxy)methane	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Bis(2-chloroethyl) Ether	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Bis(2-ethylhexyl) Phthalate	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Butyl Benzyl Phthalate	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Carbazole	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Chrysene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Di-n-butyl Phthalate	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Di-n-octyl Phthalate	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Dibenz(a,h)anthracene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Dibenzofuran	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Diethyl Phthalate	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Dimethyl Phthalate	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Fluoranthene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Fluorene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Hexachlorobenzene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Hexachlorobutadiene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Hexachlorocyclopentadiene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Hexachloroethane	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Indeno(1,2,3-cd)pyrene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Isophorone	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
N-Nitrosodi-n-propylamine	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
N-Nitrosodimethylamine	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
N-Nitrosodiphenylamine	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Naphthalene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Nitrobenzene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Pentachlorophenol (PCP)	50	U	50	1	7/19/10	7/22/10 17:06	115591	209654
Phenanthrene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Phenol	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654
Pyrene	10	U	10	1	7/19/10	7/22/10 17:06	115591	209654

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	RQ1005805-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	101	28-157	7/22/10 17:06	
2-Fluorobiphenyl	90	37-118	7/22/10 17:06	
2-Fluorophenol	54	12-84	7/22/10 17:06	
Nitrobenzene-d5	87	38-120	7/22/10 17:06	
Phenol-d6	35	10-74	7/22/10 17:06	
p-Terphenyl-d14	106	40-133	7/22/10 17:06	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00100
Sample Matrix: Water

Service Request: R1003789
Date Analyzed: 7/22/10

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 115591

	Lab Control Sample RQ1005805-02			Duplicate Lab Control Sample RQ1005805-03					
Analyte Name	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	72.0	100	72	71.2	100	71	16 - 101	1	30
1,2-Dichlorobenzene	67.3	100	67	65.1	100	65	23 - 130	3	30
1,3-Dichlorobenzene	64.9	100	65	63.3	100	63	21 - 90	2	30
1,4-Dichlorobenzene	65.4	100	65	63.2	100	63	14 - 102	3	30
2,4,5-Trichlorophenol	109	100	109	118	100	118 *	62 - 117	8	30
2,4,6-Trichlorophenol	110	100	110	114	100	114	62 - 115	3	30
2,4-Dichlorophenol	103	100	103	107	100	107	62 - 109	4	30
2,4-Dimethylphenol	57.4	100	57	63.8	100	64	33 - 95	11	30
2,4-Dinitrophenol	125	100	125	141	100	141	56 - 147	12	30
2,4-Dinitrotoluene	112	100	112	121	100	121	69 - 122	8	30
2,6-Dinitrotoluene	114	100	114	121	100	121	48 - 125	6	30
2-Chloronaphthalene	85.0	100	85	85.9	100	86	47 - 98	1	30
2-Chlorophenol	84.8	100	85	86.9	100	87	42 - 112	3	30
2-Methylnaphthalene	75.7	100	76	78.5	100	78	34 - 102	4	30
2-Methylphenol	74.7	100	75	77.3	100	77	51 - 95	3	30
2-Nitroaniline	92.6	100	93	97.0	100	97	60 - 119	5	30
2-Nitrophenol	99.8	100	100	109	100	109	60 - 113	9	30
3,3'-Dichlorobenzidine	57.9	100	58	63.8	100	64	47 - 112	10	30
3- and 4-Methylphenol Coelution	139	200	70	147	200	73	49 - 89	5	30
3-Nitroaniline	86.6	100	87	95.7	100	96	52 - 107	10	30
4,6-Dinitro-2-methylphenol	125	100	125	134	100	134	60 - 135	7	30
4-Bromophenyl Phenyl Ether	104	100	104	111	100	111	63 - 124	6	30
4-Chloro-3-methylphenol	90.3	100	90	97.1	100	97	42 - 124	7	30
4-Chloroaniline	75.2	100	75	81.7	100	82	41 - 112	8	30
4-Chlorophenyl Phenyl Ether	98.2	100	98	103	100	103	59 - 112	5	30
4-Nitroaniline	93.5	100	94	98.5	100	98	72 - 115	5	30
4-Nitrophenol	40.2	100	40	46.1	100	46	10 - 85	14	30
Acenaphthene	89.6	100	90	93.7	100	94	63 - 107	4	30
Acenaphthylene	95.9	100	96	99.5	100	99	57 - 109	4	30
Anthracene	93.6	100	94	97.5	100	98	55 - 116	4	30
Benz(a)anthracene	98.9	100	99	105	100	105	66 - 110	6	30
Benzo(a)pyrene	95.1	100	95	101	100	101	44 - 114	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00100
Sample Matrix: Water

Service Request: R1003789
Date Analyzed: 7/22/10

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 115591

	Lab Control Sample RQ1005805-02			Duplicate Lab Control Sample RQ1005805-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Benzo(b)fluoranthene	**101**	100	101	**108**	100	108	64 - 122	7	30
Benzo(g,h,i)perylene	**92.7**	100	93	**99.3**	100	99	60 - 127	7	30
Benzo(k)fluoranthene	**101**	100	101	**109**	100	109	49 - 133	8	30
Benzyl Alcohol	**69.2**	100	69	**75.8**	100	76	31 - 109	9	30
2,2'-Oxybis(1-chloropropane)	**71.0**	100	71	**71.3**	100	71	63 - 114	0	30
Bis(2-chloroethoxy)methane	**89.3**	100	89	**93.4**	100	93	44 - 141	4	30
Bis(2-chloroethyl) Ether	**83.9**	100	84	**86.1**	100	86	56 - 106	3	30
Bis(2-ethylhexyl) Phthalate	**89.3**	100	89	**96.4**	100	96	62 - 124	8	30
Butyl Benzyl Phthalate	**90.3**	100	90	**98.2**	100	98	41 - 148	8	30
Carbazole	**98.3**	100	98	**104**	100	104	66 - 117	6	30
Chrysene	**98.7**	100	99	**105**	100	105	57 - 118	6	30
Di-n-butyl Phthalate	**92.2**	100	92	**99.3**	100	99	57 - 139	7	30
Di-n-octyl Phthalate	**91.4**	100	91	**99.7**	100	100	77 - 120	9	30
Dibenz(a,h)anthracene	**92.6**	100	93	**99.6**	100	100	58 - 132	7	30
Dibenzofuran	**92.9**	100	93	**97.3**	100	97	58 - 105	5	30
Diethyl Phthalate	**91.8**	100	92	**98.4**	100	98	65 - 122	7	30
Dimethyl Phthalate	**99.9**	100	100	**105**	100	105	69 - 115	5	30
Fluoranthene	**98.6**	100	99	**106**	100	106	62 - 123	7	30
Fluorene	**94.5**	100	95	**99.2**	100	99	60 - 112	5	30
Hexachlorobenzene	**103**	100	103	**107**	100	107	75 - 116	4	30
Hexachlorobutadiene	**70.6**	100	71	**71.2**	100	71	16 - 95	1	30
Hexachlorocyclopentadiene	**54.3**	100	54	**59.1**	100	59	10 - 95	9	30
Hexachloroethane	**59.3**	100	59	**57.4**	100	57	15 - 92	3	30
Indeno(1,2,3-cd)pyrene	**94.8**	100	95	**102**	100	102	64 - 126	7	30
Isophorone	**90.0**	100	90	**95.1**	100	95	61 - 128	5	30
N-Nitrosodi-n-propylamine	**73.6**	100	74	**77.7**	100	78	63 - 110	5	30
N-Nitrosodimethylamine	**48.4**	100	48	**51.6**	100	52	37 - 67	6	30
N-Nitrosodiphenylamine	**96.0**	100	96	**101**	100	101	45 - 123	5	30
Naphthalene	**72.5**	100	73	**74.0**	100	74	36 - 95	2	30
Nitrobenzene	**94.8**	100	95	**100**	100	100	51 - 113	6	30
Pentachlorophenol (PCP)	**108**	100	108	**118**	100	118	63 - 129	9	30
Phenanthrene	**97.5**	100	98	**103**	100	103	58 - 118	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00100
Sample Matrix: Water

Service Request: R1003789
Date Analyzed: 7/22/10

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 115591

	Lab Control Sample RQ1005805-02			Duplicate Lab Control Sample RQ1005805-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Phenol	**38.7**	100	39	**41.8**	100	42	10 - 81	8	30
Pyrene	**102**	100	102	**109**	100	109	67 - 118	7	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10
Sample Matrix:	Water	**Date Received:**	7/15/10
Sample Name:	LOWRY-07/10	**Units:**	µg/L
Lab Code:	R1003789-001	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
4,4'-DDD	0.094	U	0.094	1	7/22/10	7/29/10 18:59	115849	210680
4,4'-DDE	0.094	U	0.094	1	7/22/10	7/29/10 18:59	115849	210680
4,4'-DDT	0.094	U	0.094	1	7/22/10	7/29/10 18:59	115849	210680
Aldrin	0.047	U	0.047	1	7/22/10	7/29/10 18:59	115849	210680
Dieldrin	0.094	U	0.094	1	7/22/10	7/29/10 18:59	115849	210680
Endosulfan I	0.047	U	0.047	1	7/22/10	7/29/10 18:59	115849	210680
Endosulfan II	0.094	U	0.094	1	7/22/10	7/29/10 18:59	115849	210680
Endosulfan Sulfate	0.094	U	0.094	1	7/22/10	7/29/10 18:59	115849	210680
Endrin	0.094	U	0.094	1	7/22/10	7/29/10 18:59	115849	210680
Endrin Aldehyde	0.094	U	0.094	1	7/22/10	7/29/10 18:59	115849	210680
Endrin Ketone	0.094	U	0.094	1	7/22/10	7/29/10 18:59	115849	210680
Heptachlor	0.047	U	0.047	1	7/22/10	7/29/10 18:59	115849	210680
Heptachlor Epoxide	0.047	U	0.047	1	7/22/10	7/29/10 18:59	115849	210680
Methoxychlor	0.47	U	0.47	1	7/22/10	7/29/10 18:59	115849	210680
Toxaphene	0.94	U	0.94	1	7/22/10	7/29/10 18:59	115849	210680
alpha-BHC	0.047	U	0.047	1	7/22/10	7/29/10 18:59	115849	210680
alpha-Chlordane	0.047	U	0.047	1	7/22/10	7/29/10 18:59	115849	210680
beta-BHC	0.047	U	0.047	1	7/22/10	7/29/10 18:59	115849	210680
delta-BHC	0.047	U	0.047	1	7/22/10	7/29/10 18:59	115849	210680
gamma-BHC (Lindane)	0.047	U	0.047	1	7/22/10	7/29/10 18:59	115849	210680
gamma-Chlordane	0.047	U	0.047	1	7/22/10	7/29/10 18:59	115849	210680

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	85	10-138	7/29/10 18:59	
Tetrachloro-m-xylene	78	24-117	7/29/10 18:59	

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1005924-01	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
4,4'-DDD	0.10	U	0.10	1	7/22/10	7/29/10 17:11	115849	210680
4,4'-DDE	0.10	U	0.10	1	7/22/10	7/29/10 17:11	115849	210680
4,4'-DDT	0.10	U	0.10	1	7/22/10	7/29/10 17:11	115849	210680
Aldrin	0.050	U	0.050	1	7/22/10	7/29/10 17:11	115849	210680
Dieldrin	0.10	U	0.10	1	7/22/10	7/29/10 17:11	115849	210680
Endosulfan I	0.050	U	0.050	1	7/22/10	7/29/10 17:11	115849	210680
Endosulfan II	0.10	U	0.10	1	7/22/10	7/29/10 17:11	115849	210680
Endosulfan Sulfate	0.10	U	0.10	1	7/22/10	7/29/10 17:11	115849	210680
Endrin	0.10	U	0.10	1	7/22/10	7/29/10 17:11	115849	210680
Endrin Aldehyde	0.10	U	0.10	1	7/22/10	7/29/10 17:11	115849	210680
Endrin Ketone	0.10	U	0.10	1	7/22/10	7/29/10 17:11	115849	210680
Heptachlor	0.050	U	0.050	1	7/22/10	7/29/10 17:11	115849	210680
Heptachlor Epoxide	0.050	U	0.050	1	7/22/10	7/29/10 17:11	115849	210680
Methoxychlor	0.50	U	0.50	1	7/22/10	7/29/10 17:11	115849	210680
Toxaphene	1.0	U	1.0	1	7/22/10	7/29/10 17:11	115849	210680
alpha-BHC	0.050	U	0.050	1	7/22/10	7/29/10 17:11	115849	210680
alpha-Chlordane	0.050	U	0.050	1	7/22/10	7/29/10 17:11	115849	210680
beta-BHC	0.050	U	0.050	1	7/22/10	7/29/10 17:11	115849	210680
delta-BHC	0.050	U	0.050	1	7/22/10	7/29/10 17:11	115849	210680
gamma-BHC (Lindane)	0.050	U	0.050	1	7/22/10	7/29/10 17:11	115849	210680
gamma-Chlordane	0.050	U	0.050	1	7/22/10	7/29/10 17:11	115849	210680

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	79	10-138	7/29/10 17:11	
Tetrachloro-m-xylene	71	24-117	7/29/10 17:11	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00100
Sample Matrix: Water

Service Request: R1003789
Date Analyzed: 7/29/10

Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 115849

Analyte Name	Lab Control Sample RQ1005924-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1005924-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	**0.192**	0.200	96	**0.192**	0.200	96	65 - 125	0	30
4,4'-DDE	**0.180**	0.200	90	**0.182**	0.200	91	63 - 113	2	30
4,4'-DDT	**0.181**	0.200	90	**0.183**	0.200	92	64 - 116	1	30
Aldrin	**0.155**	0.200	78	**0.169**	0.200	84	54 - 96	8	30
Dieldrin	**0.193**	0.200	96	**0.197**	0.200	98	70 - 122	2	30
Endosulfan I	**0.185**	0.200	93	**0.188**	0.200	94	71 - 121	1	30
Endosulfan II	**0.184**	0.200	92	**0.185**	0.200	93	69 - 118	0	30
Endosulfan Sulfate	**0.192**	0.200	96	**0.194**	0.200	97	63 - 122	1	30
Endrin	**0.196**	0.200	98	**0.199**	0.200	99	66 - 127	1	30
Endrin Aldehyde	**0.128**	0.200	64	**0.142**	0.200	71	10 - 154	10	30
Endrin Ketone	**0.194**	0.200	97	**0.196**	0.200	98	69 - 125	1	30
Heptachlor	**0.163**	0.200	82	**0.166**	0.200	83	63 - 108	1	30
Heptachlor Epoxide	**0.182**	0.200	91	**0.182**	0.200	91	72 - 113	0	30
Methoxychlor	**0.193**	0.200	96	**0.187**	0.200	94	77 - 133	3	30
alpha-BHC	**0.185**	0.200	93	**0.186**	0.200	93	67 - 115	0	30
alpha-Chlordane	**0.178**	0.200	89	**0.180**	0.200	90	68 - 109	1	30
beta-BHC	**0.182**	0.200	91	**0.183**	0.200	92	68 - 114	1	30
delta-BHC	**0.190**	0.200	95	**0.188**	0.200	94	42 - 122	1	30
gamma-BHC (Lindane)	**0.176**	0.200	88	**0.177**	0.200	88	69 - 116	0	30
gamma-Chlordane	**0.175**	0.200	88	**0.173**	0.200	86	69 - 112	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10
Sample Matrix:	Water	**Date Received:**	7/15/10
Sample Name:	LOWRY-07/10	**Units:**	µg/L
Lab Code:	R1003789-001	**Basis:**	NA

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
Aroclor 1016	0.94	U	0.94	1	7/22/10	7/29/10 16:41	115849	210656
Aroclor 1221	1.9	U	1.9	1	7/22/10	7/29/10 16:41	115849	210656
Aroclor 1232	0.94	U	0.94	1	7/22/10	7/29/10 16:41	115849	210656
Aroclor 1242	0.94	U	0.94	1	7/22/10	7/29/10 16:41	115849	210656
Aroclor 1248	0.94	U	0.94	1	7/22/10	7/29/10 16:41	115849	210656
Aroclor 1254	0.94	U	0.94	1	7/22/10	7/29/10 16:41	115849	210656
Aroclor 1260	0.94	U	0.94	1	7/22/10	7/29/10 16:41	115849	210656

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	82	10-136	7/29/10 16:41	
Tetrachloro-m-xylene	79	28-117	7/29/10 16:41	

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1005924-01	**Basis:**	NA

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
Aroclor 1016	1.0	U	1.0	1	7/22/10	7/29/10 14:56	115849	210656
Aroclor 1221	2.0	U	2.0	1	7/22/10	7/29/10 14:56	115849	210656
Aroclor 1232	1.0	U	1.0	1	7/22/10	7/29/10 14:56	115849	210656
Aroclor 1242	1.0	U	1.0	1	7/22/10	7/29/10 14:56	115849	210656
Aroclor 1248	1.0	U	1.0	1	7/22/10	7/29/10 14:56	115849	210656
Aroclor 1254	1.0	U	1.0	1	7/22/10	7/29/10 14:56	115849	210656
Aroclor 1260	1.0	U	1.0	1	7/22/10	7/29/10 14:56	115849	210656

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	74	10-136	7/29/10 14:56	
Tetrachloro-m-xylene	70	28-117	7/29/10 14:56	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00100
Sample Matrix: Water

Service Request: R1003789
Date Analyzed: 7/29/10

Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 115849

Analyte Name	Lab Control Sample RQ1005924-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1005924-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1260	**3.91**	5.00	78	**4.21**	5.00	84	51 - 123	7	30

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10
Sample Matrix:	Water	**Date Received:**	7/15/10
Sample Name:	LOWRY-07/10	**Units:**	µg/L
Lab Code:	R1003789-001	**Basis:**	NA

Chlorinated Herbicides by GC

Analytical Method: 8151A
Prep Method: Method

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
2,4,5-T	0.47	U	0.47	1	7/20/10	7/26/10 15:43	115659	209998
2,4,5-TP	0.47	U	0.47	1	7/20/10	7/26/10 15:43	115659	209998
2,4-D	0.47	U	0.47	1	7/20/10	7/26/10 15:43	115659	209998
Dicamba	0.47	U	0.47	1	7/20/10	7/26/10 15:43	115659	209998

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4-Dichlorophenylacetic Acid	74	15-146	7/26/10 15:43	

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1005845-01	**Basis:**	NA

Chlorinated Herbicides by GC

Analytical Method: 8151A
Prep Method: Method

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
2,4,5-T	0.50	U	0.50	1	7/20/10	7/26/10 14:16	115659	209998
2,4,5-TP	0.50	U	0.50	1	7/20/10	7/26/10 14:16	115659	209998
2,4-D	0.50	U	0.50	1	7/20/10	7/26/10 14:16	115659	209998
Dicamba	0.50	U	0.50	1	7/20/10	7/26/10 14:16	115659	209998

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4-Dichlorophenylacetic Acid	79	15-146	7/26/10 14:16	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00100
Sample Matrix: Water

Service Request: R1003789
Date Analyzed: 7/26/10

Lab Control Sample Summary
Chlorinated Herbicides by GC

Analytical Method: 8151A
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 115659

Analyte Name	Lab Control Sample RQ1005845-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1005845-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
2,4,5-T	**2.92**	2.50	117	**2.65**	2.50	106	29 - 118	10	30
2,4,5-TP	**2.15**	2.50	86	**2.04**	2.50	81	40 - 116	6	30
2,4-D	**3.38**	2.50	135	**2.92**	2.50	117	42 - 141	15	30
Dicamba	**2.07**	2.50	83	**1.94**	2.50	77	43 - 107	7	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10
Sample Matrix:	Water	**Date Received:**	7/15/10
Sample Name:	LOWRY-07/10	**Units:**	µg/L
Lab Code:	R1003789-001	**Basis:**	NA

Petroleum Products in Water (Hydrocarbon Scan) for State of New York

Analytical Method: NY 310-13
Prep Method: Method

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
Fuel Oil No. 2	940	U	940	1	7/21/10	7/22/10 12:21	115756	209593
Fuel Oil No. 4	940	U	940	1	7/21/10	7/22/10 12:21	115756	209593
Fuel Oil No. 6	940	U	940	1	7/21/10	7/22/10 12:21	115756	209593
Gasoline	940	U	940	1	7/21/10	7/22/10 12:21	115756	209593
Kerosene	940	U	940	1	7/21/10	7/22/10 12:21	115756	209593
Lube Oil	940	U	940	1	7/21/10	7/22/10 12:21	115756	209593
n-Dodecane	940	U	940	1	7/21/10	7/22/10 12:21	115756	209593

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1005889-01	**Basis:**	NA

Petroleum Products in Water (Hydrocarbon Scan) for State of New York

Analytical Method: NY 310-13
Prep Method: Method

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
Fuel Oil No. 2	1000	U	1000	1	7/21/10	7/22/10 13:12	115756	209593
Fuel Oil No. 4	1000	U	1000	1	7/21/10	7/22/10 13:12	115756	209593
Fuel Oil No. 6	1000	U	1000	1	7/21/10	7/22/10 13:12	115756	209593
Gasoline	1000	U	1000	1	7/21/10	7/22/10 13:12	115756	209593
Kerosene	1000	U	1000	1	7/21/10	7/22/10 13:12	115756	209593
Lube Oil	1000	U	1000	1	7/21/10	7/22/10 13:12	115756	209593
n-Dodecane	1000	U	1000	1	7/21/10	7/22/10 13:12	115756	209593

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00100
Sample Matrix: Water

Service Request: R1003789
Date Analyzed: 7/22/10

Lab Control Sample Summary
Petroleum Products in Water (Hydrocarbon Scan) for State of New York

Analytical Method: NY 310-13
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 115756

Analyte Name	Lab Control Sample RQ1005889-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1005889-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Fuel Oil No. 2	**2880**	5000	58	**2860**	5000	57	46 - 150	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

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Columbia Analytical Services

METALS

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: R1003789 SDG No.: MW10A

Lab Code: _____ Case No.: _____ SAS No.: _____

SOW No.: EPA 200 Serie

Sample ID.	Lab Sample No.
LOWRY-07/10	R1003789-001

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: See Attatched Case Narrative

Signature: Michael F. Perry Name: Michael Perry

Date: 3/9/10 Title: Laboratory Director

Columbia Analytical Services

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

LOWRY-07/10

Contract: R1003789

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW10A

Matrix (soil/water): WATER Lab Sample ID: R1003789-001

Level (low/med): LOW Date Received: 7/15/2010

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-22-4	Silver	10.0	U		P
7440-36-0	Antimony	1.0	U		MS
7440-38-2	Arsenic	1.3			MS
7440-39-3	Barium	205			MS
7440-41-7	Beryllium	1.0	U		MS
7440-43-9	Cadmium	1.0	U		MS
7439-89-6	Iron	291			P
7439-97-6	Mercury	0.200	U		CV
7440-23-5	Sodium	18800			P
7440-02-0	Nickel	1.1			MS
7440-28-0	Thallium	1.0	U		MS
7440-66-6	Zinc	20.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: URS Corporation
Project: Cole-Zaiser Site/16530332.00100
Sample Matrix: Water

Service Request: R1003789
Date Analyzed: 7/29/10

Lab Control Sample Summary
Hexavalent Chromium, Dissolved, In DW, Groundwater And Industrial Wastewater Effluents By IC

Units: mg/L
Basis: NA

		Lab Control Sample R1003789-LCS			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Chromium, Hexavalent, Dissolved	218.6	**0.201**	0.200	101	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1003789-MB	**Basis:**	NA

Hexavalent Chromium, Dissolved, In DW, Groundwater And Industrial Wastewater Effluents By IC

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Chromium, Hexavalent, Dissolved	218.6	0.010	U	mg/L	0.010	1	NA	7/29/10 12:38

Client:	URS Corporation	**Service Request:**	R1003789
Project:	Cole-Zaiser Site/16530332.00100	**Date Collected:**	7/15/10
Sample Matrix:	Water	**Date Received:**	7/15/10
Sample Name:	LOWRY-07/10		
Lab Code:	R1003789-001	**Basis:**	NA

Hexavalent Chromium, Dissolved, In DW, Groundwater And Industrial Wastewater Effluents By IC

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Chromium, Hexavalent, Dissolved	218.6	0.010	U	mg/L	0.010	1	NA	7/29/10 13:05

METALS

-7-

LABORATORY CONTROL SAMPLE

Contract: R1003789

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW10A

Solid LCS Source: _____

Aqueous LCS Source: ACCUSTANDARD

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits	%R
Silver	50	50	100					
Antimony	20	20.60	103					
Arsenic	20	20.90	104					
Barium	20	20.30	102					
Beryllium	20	20.90	104					
Cadmium	20	21.40	107					
Iron	1000	1010	101					
Mercury	1.000	1.060	106					
Nickel	20	21.20	106					
Sodium	20000	20500	102					
Thallium	20	20.10	100					
Zinc	500	516	103					

Comments: _____

Columbia Analytical Services

METALS
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

LOWRY-07/10A

Contract: R1003789

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW10A

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Antimony		19.8		1.0	U	20	99		MS
Arsenic		21.2		1.2		20	100		MS
Barium		62.2		41.1		20	106		MS
Beryllium		18.2		1.0	U	20	91		MS
Cadmium		20.3		1.0	U	20	102		MS
Nickel		20.6		1.1		20	98		MS
Thallium		20.2		1.0	U	20	101		MS

Comments: _____

METALS

-3-

BLANKS

Contract: R1003789

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW10A

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Silver			10.00	U							P
Iron			100.00	U							P
Zinc			20.00	U							P

Comments:

METALS

-3-

BLANKS

Contract: R1003789

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW10A

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Silver			10.00	U	10.00	U	10.00	U			P
Antimony			1.000	U							MS
Arsenic			1.000	U							MS
Beryllium			1.000	U							MS
Cadmium			1.000	U							MS
Iron			100.00	U	100.00	U	100.00	U			P
Nickel			1.000	U							MS
Sodium			1000.00	U	1000.00	U	1000.00	U			P
Thallium			1.000	U							MS
Zinc			20.00	U	20.00	U	20.00	U			P

Comments:

METALS

-3-

BLANKS

Contract: R1003789

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW10A

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Silver	10.00	U	10.00	U	10.00	U	10.00	U	10.000	U	P
Antimony	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Arsenic	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Barium	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Beryllium	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Cadmium	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Iron	100.00	U	100.00	U	100.00	U	100.00	U	100.000	U	P
Mercury	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	CV
Nickel	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Sodium	1000.00	U	1000.00	U	1000.00	U	1000.00	U	1000.000	U	P
Thallium	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Zinc	20.00	U	20.00	U	20.00	U	20.00	U	20.000	U	P

Comments:

SUMMARY OF EXCAVATION SOIL SAMPLING
REMEDIAL ACTION ACTIVITIES
COLE ZAISER SITE - WEST AMBOY, N.Y.

Sample ID Sample Date Sample Depth (feet) Headspace* (ppm)	NYSDEC Closure Criteria	CZEXC-NWW-1 7/21/2001 4 0.0	A367-S2 (DEC) (7/22/01) (4) (0.0)	CZEXC-WW-1-04 7/21/2001 4 0.0	CZEXC-NEW-1 7/22/2001 2.5 2.7	A367-S3 (DEC) (7/22/01) (2.5) (2.7)	CZEXC-NEW-2 8/1/2001 2.5 0.0	CZEXC-WW-2-02 7/22/2001 2 39.0	CZEXC-DWW-2-02 7/22/2001 2 (39.0)	A367-S1 (DEC) (7/22/01) (2) (39.0)
Volatile Organic Compounds (ASP-00)										
1,1-Dichloroethane	200	--	--	--	120 D	250	--	9 J	3 J	28 J
1,1-Dichloroethene	400	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	300	--	--	--	--	--	--	4 J	4 J	83
trans-1,2-Dichloroethene	300	--	--	--	10 DJ	--	--	1 J	--	--
1,1,1-Trichloroethane	800	--	--	--	--	74	--	6 J	3 J	52
Benzene	60	--	--	--	--	--	--	--	--	--
Ethylbenzene	5500	--	--	--	21 DJ	130	--	52	32	74
Tetrachloroethene	1400	1 J	14 J	--	--	--	--	7 J	8 J	69
Toluene	1500	--	--	--	200 D	3300 E	--	100	47	200
Trichloroethene	1700	--	--	--	--	--	--	--	--	12 J
Vinyl Chloride	200	--	--	--	--	--	--	--	--	--
Xylenes	1200	--	--	--	160 D	1590 E	--	380	230	850
1,2-Dichlorobenzene	-	--	--	--	--	--	--	30	22	--
1,1,2-Trichlorotrifluoromethane	-	--	n/a	--	--	n/a	--	4 J	3 J	n/a
4-Methyl-2-Pentanone	-	--	--	--	--	--	--	2 J	--	--
2-Butanone	-	--	--	5 BJ	350 BD	530 E	--	37 B	39 B	100
Acetone	-	--	--	52 B	1300 BD	4100 E	26	110 B	140 B	380
Carbon Disulfide	-	--	--	--	8 DJ	--	--	1 J	2 J	--
Chlorobenzene	-	--	--	--	--	--	--	--	--	--
Chloroform	-	--	--	--	--	--	--	--	--	--
Isopropylbenzene	-	--	n/a	--	91 D	n/a	--	32	24	n/a
Methylcyclohexane	-	--	n/a	--	99 D	n/a	--	12	14	n/a
Methylene Chloride	-	10 BJ	--	9 BJ	73 BDJ	--	3 J	9 BJ	9 BJ	--
Total Volatiles	10000	11	14	66	2432	9974	29	796	580	1848

Notes:
All analytical results and closure criteria are presented in ug/kg
-- = Not detected above reporting limit
Bolded values indicate exceedances of closure criteria
J = Sample result has been estimated due to a detection below the quantitation limit
B = Analyte of concern has been detected in the trip blank as well as in the sample
E = Sample result was detected outside of the calibration range.
n/a = Constituent was not analyzed for.
* - Headspace analyses performed using a Thermo-Environmental OVM, Model 580B with an 11.8 eV lamp
Sample designations indicate cardinal direction and placement of sample (i.e. - NWF= NorthWest Floor, SW= South Wall)

Permeri

67

ENVIRONMENTAL PROTECTION EASEMENT AND

DECLARATION OF RESTRICTIVE COVENANTS

This Environmental Protection Easement and Declaration of Restrictive Covenants is made as of this 26th day of August, 2004, by and between Dorothy J. Lowe ("Grantor"), having an address at 400 North Avenue, Syracuse, NY 13206 and BorgWarner Inc., including any successor-in-interest ("Grantee").

WHEREAS, Dorothy J. Lowe is the owner of a parcel of land (the "Property") located in rural Amboy, County of Oswego, New York, and being more fully described on Attachment A which is incorporated herein.

WHEREAS, the tax parcel identification number for the Property is 195.00-02-16.

WHEREAS, the property was formerly owned and operated by Cole-Zaiser Inc. from about 1973 to 1976 and operated as a waste oil treatment facility ("Cole-Zaiser Site" or "the Site"); the Site is listed as an inactive hazardous waste site as that term is defined a New York State Environmental Conservation Law 27-1301(2); and the site is listed on New York's Registry as Site Number 738013.

WHEREAS, in a Record of Decision issued after a period of public comment on December 9, 1998 (the "ROD"), the New York State Department of Environmental Conservation (NYSDEC) selected a remedial action for the Site, which provided, in part, for the following remedial actions:

(i) removal of the source of contamination from the former bermed area on site by ex situ soil vapor extraction; and (ii) monitoring of residual groundwater contamination.

WHEREAS, BorgWarner Inc., Xerox Corporation, and Atlantic Richfield Company (the "Respondents") entered into a Consent Decree with New York State dated December 28, 2000 ("Consent Decree") in which the parties agree to finance and/or implement the ROD;

WHEREAS, the Respondents have removed the source of the contamination at the Site in accordance with the ROD and will now monitor the shallow groundwater at and down gradient from the Site;

WHEREAS, Ms. Lowe wishes to cooperate with the NYSDEC and the Respondents conducting response actions at the Site;

WHEREAS, the parties hereto have agreed that it is appropriate and necessary to: (i) impose on the Property restrictions to the use of groundwater, and the ground which may contact the water, as covenants which will run with the land for the purpose of protecting human health and the environment by protecting in perpetuity the remedial actions which have been and will take place at the Property; and (ii) grant a permanent right of access to (Grantee(s)) over the Property for purposes of facilitating and monitoring the remedial actions; and

WHEREAS, Respondents shall pay to Ms. Lowe the amount of $1.00 (one dollar) in consideration for this environmental easement, pursuant to a separate agreement that shall be made a part of this easement.

NOW, THEREFORE,

DECLARATIONS, RESTRICTIONS AND EASEMENT

1. GRANT: Grantor, in consideration of the foregoing premises, does hereby covenant and declare that the Property shall be subject to the restrictions on use set forth below, and does give, grant and convey to the Grantee and its assigns, with general warranties of title, (i) the perpetual right to enforce said use restrictions, and (ii) an environmental protection easement of the nature and character, and for the purposes hereafter set forth, with respect to the Property.

2. PURPOSE: The purpose of this instrument is to give the Grantee the right to continue to remediate past environmental contamination as required and reduce the risk of exposure to contaminants for human health and the environment.

3. RESTRICTIONS ON USE: The following covenants, conditions, and restrictions apply to the use of the portion of the Property shown on Figure A ("Restricted Area"), run with the land and are binding on the Grantor:

(i) There shall be no consumptive, extractive, or other use of the shallow groundwater underlying the Restricted Area that could cause exposure of humans or animals to the shallow groundwater underlying the Restricted Area and no installation of new drinking water production wells, except as approved in writing by the NYSDEC;

(ii) The following activities are prohibited in the Restricted Area: on-site excavation, land filling, mining, invasive construction, or drilling, except as approved in writing by the NYSDEC; and

(iii) There shall be no tampering with, or removal of, the monitoring systems that remain on the Property as a result of implementation of any response action by NYSDEC, or any party acting as agent for NYSDEC, including the Grantees hereto.

4. MODIFICATIONS OF RESTRICTIONS: The above restrictions may be modified to be less restrictive, or terminated in whole or in part, by the Grantee. A writing is necessary to effectuate any change and must be recorded against the Property.

5. ENVIRONMENTAL PROTECTION EASEMENT: Grantor hereby grants to the Grantee an irrevocable, permanent and continuing right of access at all reasonable times to the Property. The purposes for such access are:

(i) Implementing additional response actions if required by the NYSDEC, including placement, replacement, modification, operation and maintenance of the ground-

water monitoring system, or sampling of any type of media, including in animals found on the property, in soil, ground water, surface water, wastewater, or sediments;

(ii) Verifying any data or information submitted to NYSDEC;

(iii) Verifying that no action is being taken on the property in violation of the terms of this instrument or of any federal or state environmental laws or regulations;

(iv) Monitoring response actions on the Site and conducting investigations relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils, and specifically, without limitation, obtaining split or duplicate samples;

(v) Conducting periodic review of the response action, including but not limited to, review required by applicable statutes and/or regulations; and

(vi) Implementing additional or new response actions if the Grantee, in its sole discretion, determines (a) that such actions are necessary to protect the environment because either the original remedial action has proven to be ineffective or because new technology has been developed which will accomplish the purposes of the remedial action in a significantly more efficient or cost effective manner; and (b) that the additional or new response actions will not impose any significantly greater burden on the Property or unduly interfere with the then existing uses of the Property.

14. RESERVED RIGHTS OF GRANTOR: Grantor hereby reserves unto itself, its successors, and assigns, all rights and privileges in and to the use of the Property which are not incompatible with the restrictions, rights and easements granted herein.

15. NO UNINTENDED LIMITATION: Nothing in this document shall limit or otherwise affect NYSDEC's rights of entry and access provided by law or regulation

16. NO PUBLIC ACCESS AND USE: No right of access or use by the general public to any portion of the Property is conveyed by this instrument.

17. NOTICE REQUIREMENT: Grantor agrees to include in any instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a notice which is substantially in the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO THE EFFECT OF AN ENVIRONMENTAL PROTECTION EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS, DATED _____, 2004, RECORDED IN THE PUBLIC LAND RECORDS ON _____, 2004, IN BOOK _____, PAGE ____, IN FAVOR OF, AND ENFORCEABLE BY, BORGWARNER INC.

Within thirty (30) days of the date any such instrument of conveyance is filed with the Oswego County Recorder's Office, Grantor must provide Grantee with a certified true copy of said instrument and its recording reference.

19. ENFORCEMENT: The Grantee shall be entitled to enforce the terms of this instrument by resort to specific performance or legal process. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§ 9601 *et seq.* Enforcement of the terms of this instrument shall be at the discretion of the Grantee, and any forbearance, delay or omission to exercise its rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver by the Grantee of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Grantee under this instrument.

20. DAMAGES: Grantee shall be entitled to recover damages for violations of the terms of this instrument, or for any injury to the remedial action, to the public or to the environment protected by this instrument.

21. WAIVER OF CERTAIN DEFENSES: Grantor hereby waives any defense of laches, estoppels, or prescription.

22. COVENANTS: Grantor hereby covenants to and with the Grantee and its assigns, that the Grantor is lawfully seized in fee simple of the Property, that the Grantor has a good and lawful right and power to sell and convey it, and that the Grantor will forever warrant and defend the title thereto and the quiet possession thereof.

23. NOTICES: Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

Dorothy J. Lowe
400 North Avenue
Syracuse, NY 13206

To Grantee:

Corporation Counsel
BorgWarner Inc.
200 S. Michigan Ave., 19th Floor
Chicago, IL 60604

and

Jane E. Montgomery
Schiff Hardin LLP
6600 Sears Tower
Chicago, IL 60606

24. MODIFICATIONS OR RELEASE OF RIGHTS, COVENANTS, CONDITIONS AND RESTRICTIONS: If information becomes available which demonstrates that the rights, covenants, conditions, and restrictions contained in this document may, in whole or in part, be modified or

released consistent with the public interest and the public purpose of protecting human health and the environment, then such rights may be modified or released by the execution of a proper instrument by the Grantor and Grantee and by the recording of this instrument in the Oswego County Recorders' Office.

25. General Provisions:

(i) controlling law: The interpretation and performance of this instrument shall be governed by the laws of the State of New York.

(ii) Liberal construction: Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of the environmental laws of the state. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

(iii) Severability: If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

(iv) Entire Agreement: This instrument sets forth the entire agreement of the parties with respect to the rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein.

(v) No forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

(vi) Joint obligation: If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

(vii) Successors: The covenants, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representative, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The rights of the Grantee and Grantor under this instrument are freely assignable, subject to the notice provisions hereof.

(viii) Termination of Rights and Obligations: A party's rights and obligations under this instrument terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

(ix) Counterparts: The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; and each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

TO HAVE AND TO HOLD unto the Grantee and its assigns forever.

In Witness Whereof, the undersigned have caused this Environmental Protection Easement and Declaration of Restrictive Covenants to be executed.

Executed this 26 day of August 2004.

GRANTOR: Dorothy J. Lowe

Dorothy J Lowe
(Signature)

Signed and acknowledged in the presence of:

(1) Melissa C. Timmons

(2) _____

MELISSA C. TIMMONS
Notary Public in the State of New York
Qualified in Onondaga County
Reg. No. 01TI6041684
My Commission Expires May 15, 2006

STATE OF NEW YORK)
) **SS:**
COUNTY OF Onondaga)

Dorothy J. Lowe acknowledged the foregoing instrument before me this 26th day of August 2004.

Notary Public - State of New York

My commission expires: May 15, 2006

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau B, 12th Floor
625 Broadway, Albany, New York 12233-7016
Phone: (518) 402-9768 • **Fax:** (518) 402-9779
Website: www.dec.ny.gov

Joe Martens
Commissioner

MEMORANDUM

TO: Robert Schick, Assistant Director, Division of Environmental Remediation

FROM: Michael Cruden, Director, Remedial Bureau E, NYSDEC
Steven Bates, Director, Bureau of Environmental Exposure Investigation, NYSDOH

SUBJECT: Soil Vapor Intrusion Evaluation Determination: **No Further Action**
Site No. 738013, Cole – Zaiser, Amboy (T), Oswego County

DATE:

NYSDEC Program Policy DER-13 states that vapor intrusion evaluations will be performed at all remedial sites with known or likely subsurface volatile organic chemical (VOC) contamination where remedial decisions were made prior to January 1, 2003. Using the procedures outlined in DER-13 and the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York, the vapor intrusion exposure pathway was evaluated at the above-referenced site. This memorandum describes the results of the NYSDEC/NYSDOH evaluation. Based upon the information referenced below, current or potential vapor intrusion exposures associated with the site have been evaluated and the NYSDEC and NYSDOH have determined that:

No additional investigation or remedial measures are needed at this time to address the soil vapor intrusion exposure pathway.

Evaluation Summary

The vapor intrusion evaluation included a review of historical information (see attached), as well as discussions with NYSDEC and NYSDOH project managers and section chiefs/regional engineers responsible for the site. Upon review of the available information pertaining to the above-referenced site and the current land use, it has been determined that no additional investigation or remedial measures are needed at this time to address the soil vapor intrusion exposure pathway.

This determination is based primarily on the following site conditions (check all that apply):

X *No subsurface source of VOCs*

Review of post-remediation confirmatory soil sampling and groundwater monitoring data demonstrates that no subsurface sources of VOCs are known to exist at the site.

☐ *VOCs not detected in soil vapor or measured below levels of concern*

Recent soil vapor data collected as part of the vapor intrusion evaluation effort indicate that VOCs are either not currently present in the soil vapor, or are present at concentrations which do not require further action to address the vapor intrusion exposure pathway. (Note: In almost all cases, sub-slab soil gas data are needed to support a "below levels of concern" decision under this scenario. In unusual cases, where the only presence of low level VOCs is in isolated soil gas monitoring well samples, a "below levels of concern" decision will be considered.)

☐ *Clean zone of groundwater above the contaminated zone is precluding the migration of soil vapor*

Groundwater data indicate that the site-related VOC contamination is limited to deeper portions of the aquifer and no VOC contamination is present in the shallow groundwater.

☐ *No current or potential exposures to contaminated soil vapors*

The structures above the site-related groundwater and soil VOC contamination are vacant or have been demolished; there is no current route of exposure via vapor intrusion. In accordance with 6NYCRR Part 375, the Responsible Party must notify the Commissioner of DEC and DOH of any changes in use.

☐ *Exposures have been demonstrated to be occupational (or due to other indoor sources that are not attributable to vapor intrusion), rather than environmental*

There is sufficient analytical data and site information to demonstrate that current exposures are occupational (or due to other indoor sources that are not attributable to vapor intrusion) and are not related to exposure to subsurface contaminants through the soil vapor intrusion pathway and that levels of VOCs in the sub-slub vapor do not indicate a need for actions to address the potential for future exposures.

☐ *Exposures have been demonstrated to be occupational (or due to other indoor sources that are not attributable to vapor intrusion), rather than environmental*

There is sufficient analytical data and site information to demonstrate that current exposures are occupational (or due to other indoor sources that are not attributable to vapor intrusion) and are not related to exposure to subsurface contaminants through the soil vapor intrusion pathway. However, given sub-slab vapor data, the Responsible Party (NAME) must notify the Commissioner of DEC and DOH of any changes in use in accordance with 6NYCRR Part 375.

Summary Explanation

The site is located in the Town of Amboy, Oswego County, NY. Cole-Zaiser operated a small waste oil reclamation business on this property from 1973 to 1976. The business operated out of a small cinder block building (now vacant) that is located in a rural part of Oswego County.

Two surrounding parcels to the west and north are residential. The rest of the site is surrounded by undeveloped, wooded property.

The on-site structures are vacant or have been demolished. As for the adjacent off-site structures, there are no current routes of soil vapor intrusion exposure. In addition, the off-site monitoring wells are free of VOC contamination.

The source of contamination was remediated via ex-situ vacuum extraction in 2001 and 2002. This site is in the Site Maintenance phase of the project. Groundwater monitoring was performed annually until the Record of Decision (ROD) cleanup objectives set at drinking water standards were achieved. Attached are the post-excavation soil sample results and groundwater monitoring data.

In accordance with 6NYCRR Part 375, Borg-Warner must notify the Commissioner of NYSDEC and NYSDOH of any changes in use. There are executed deed restrictions in place for the use of this site property. Private use of the on-site groundwater is restricted until the site is delisted.

There is no public water supply in this area. The PRP successfully installed a new well for the residence north of the site. The Department tested the well and tap water of the residence west of the site. Both private wells sample results were non-detect for the contaminants of concern specified by ROD.

Enclosed is a map of the monitoring wells for the site. The well depths for MW-11 and MW-12 are both 14 feet. Three shallow wells (TMB-01, TMB-02 and TMB-03) are also located North and down gradient of the site. The well depths of TMB-01, TMB-02 and TMB-03 are 12.7 feet, 10.8 feet and 14.2 feet, respectively. TMB-02 and TMB-03, are hand dug wells, have a three-foot diameter, and have precast concrete covers. These two wells were primarily used for lawn sprinkling, but are now out of service. TMB-01 was the original private drinking water supply well for the residence North of the site and was properly abandoned after the PRP installed another drinking water supply well. TMB-04 is 153-feet deep and is an active private water supply well.

Based upon the information referenced above, current or potential vapor intrusion exposures associated with the site have been evaluated and the NYSDEC and the NYSDOH have determined that no further action is necessary for this SVI legacy site. After this memorandum is approved by NYSDOH, the Department will start the delisting reclassification process for the site.

Concurrence/Signatures

REMEDIAL BUREAU DIRECTOR (or DSHM Bureau Director as appropriate)

_____ Date_____

Robert Cozzy
Director, Remedial Bureau B
New York State Department of Environmental Conservation

DEPARTMENT OF HEALTH

_____ Date_____

Steven M. Bates
Director, Bureau of Environmental Exposure Investigation
New York State Department of Health

ecc: D. Desnoyers
D. Radtke
E. Hausamann
J. Grathwol
H. Warner
K. Anders, DOH

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau E, 12th Floor
625 Broadway, Albany, New York 12233-7017
Phone: (518) 402-9814 • FAX: (518) 402-9819
Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

MEMORANDUM

TO: Sal Ervolina, Assistant Director, Division of Environmental Remediation

FROM: Robert C. Knizek, Director, Remedial Bureau E, NYSDEC
Steven Bates, Assistant Director, Bureau of Environmental Exposure Investigation, NYSDOH

SUBJECT: Soil Vapor Intrusion Evaluation Determination: **No Further Action**
Site No. 7-38-013, Cole-Zaiser
Amboy (T), Oswego County

DATE: APR 29 2009

NYSDEC Program Policy DER-13 states that vapor intrusion evaluations will be performed at all remedial sites with known or likely subsurface volatile organic chemical (VOC) contamination where remedial decisions were made prior to January 1, 2003. Using the procedures outlined in DER-13 and the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York, the vapor intrusion exposure pathway was evaluated at the above-referenced site. This memorandum describes the results of the NYSDEC/NYSDOH evaluation. Based upon the information referenced below, current or potential vapor intrusion exposures associated with the site have been evaluated and the NYSDEC and NYSDOH have determined that:

No additional investigation or remedial measures are needed at this time to address the soil vapor intrusion exposure pathway.

Evaluation Summary

The vapor intrusion evaluation included a review of historical information from the Remedial Investigation (copy attached), as well as discussions with NYSDEC and NYSDOH project managers and section chiefs/regional engineers responsible for the site. Upon review of the available information pertaining to the above-referenced site and the current land use, it has been determined that no additional investigation or remedial measures are needed at this time to address the soil vapor intrusion exposure pathway.

This determination is based primarily on the following site conditions (check all that apply):

☐ ***No subsurface source of VOCs***
Review of post-remediation confirmatory soil sampling and groundwater monitoring data demonstrates that no subsurface sources of VOCs are known to exist at the site.

☐ ***VOCs not detected in soil vapor or measured below levels of concern***
Recent soil vapor data collected as part of the vapor intrusion evaluation effort indicate that VOCs are either not currently present in the soil vapor, or are present at concentrations which do not require further action to address the vapor intrusion exposure pathway. (Note: In almost all cases, sub-slab soil gas data are needed to support a "below levels of concern" decision under this scenario. In unusual cases, where **the only presence** of low level VOCs is in isolated soil gas monitoring well samples, a "below levels of concern" decision will be considered.)

☐ ***Clean zone of groundwater above the contaminated zone is precluding the migration of soil vapor***
Groundwater data indicate that the site-related VOC contamination is limited to deeper portions of the aquifer and no VOC contamination is present in the shallow groundwater.

✓ ***No current or potential exposures to contaminated soil vapors***

The structures above the site-related groundwater and soil VOC contamination are vacant or have been demolished; there is no current route of exposure via vapor intrusion. In accordance with 6NYCRR Part 375, the Responsible Party must notify the Commissioner of DEC and DOH of any changes in use. There are executed deed restrictions in place for the use of this site property.

☐ ***Exposures have been demonstrated to be occupational (or due to other indoor sources that are not attributable to vapor intrusion), rather than environmental***
There is sufficient analytical data and site information to demonstrate that current exposures are occupational (or due to other indoor sources that are not attributable to vapor intrusion) and are not related to exposure to subsurface contaminants through the soil vapor intrusion pathway and that levels of VOCs in the sub-slub vapor do not indicate a need for actions to address the potential for future exposures.

☐ ***Exposures have been demonstrated to be occupational (or due to other indoor sources that are not attributable to vapor intrusion), rather than environmental***
There is sufficient analytical data and site information to demonstrate that current exposures are occupational (or due to other indoor sources that are not attributable to vapor intrusion) and are not related to exposure to subsurface contaminants through the soil vapor intrusion pathway. However, given sub-slab vapor data, the Responsible Party (NAME) must notify the Commissioner of DEC and DOH of any changes in use in accordance with 6NYCRR Part 375.

Summary Explanation

The site is located in the Town of Amboy, Oswego County, NY. Cole-Zaiser operated a small waste oil reclamation business on this property from 1973 to 1976. The business operated out of a small cinder block building (now vacant) that is located in a rural part of Oswego County.

Two surrounding parcels to the west and north are residential. The rest of the site is surrounded by undeveloped, wooded property.

The on-site structures above the site-related groundwater and soil VOC contamination are vacant or have been demolished. As for the adjacent off-site structures, there are no current routes of soil vapor intrusion exposure.

The source of contamination was remediated via ex-situ vacuum extraction in 2001 and 2002. This site is in the Site Maintenance phase of the project. Groundwater monitoring is performed annually. Attached are the post-excavation soil sample results and groundwater monitoring data.

In accordance with 6NYCRR Part 375, Borg-Warner must notify the Commissioner of DEC and DOH of any changes in use. There are executed deed restrictions in place for the use of this site property. Private use of the on-site groundwater is restricted until all monitoring wells reaching the Record of Decision (ROD) objectives.

There is no public water supply in this area. The PRP successfully installed a new well for the residence north of the site. The Department tested the well and tap water of the residence west of the site. Both private wells sample results were non-detect for the contaminants of concern specified by ROD.

Summary Explanation (continued)

Enclosed is a map of the monitoring wells for the site. The well depths for MW-11 and MW-12 are both 14 feet. Three shallow wells (TMB-01, TMB-02 and TMB-03) are also located North of the site. The well depths of TMB-01, TMB-02 and TMB-03 are 12.7 feet, 10.8 feet and 14.2 feet, respectively.

TMB-02 and TMB-03, are hand dug wells, have a three-foot diameter, and have precast concrete covers. These two wells were primarily used for lawn sprinkling, but are now out of service.

TMB-01 was the original private drinking water supply well for the residence North of the site and was properly abandoned after the PRP installed another drinking water supply well. This active drinking water supply well is 153-feet deep and is labeled as TMB-04 on the enclosed map.

Based upon the information referenced above, current or potential vapor intrusion exposures associated with the site have been evaluated and the NYSDEC and NYSDOH have determined that no further action is necessary for this SVI legacy site.

Concurrence/Signatures

REMEDIAL BUREAU DIRECTOR (OR DSHM BUREAU DIRECTOR AS APPROPRIATE)

Date 4/15/09

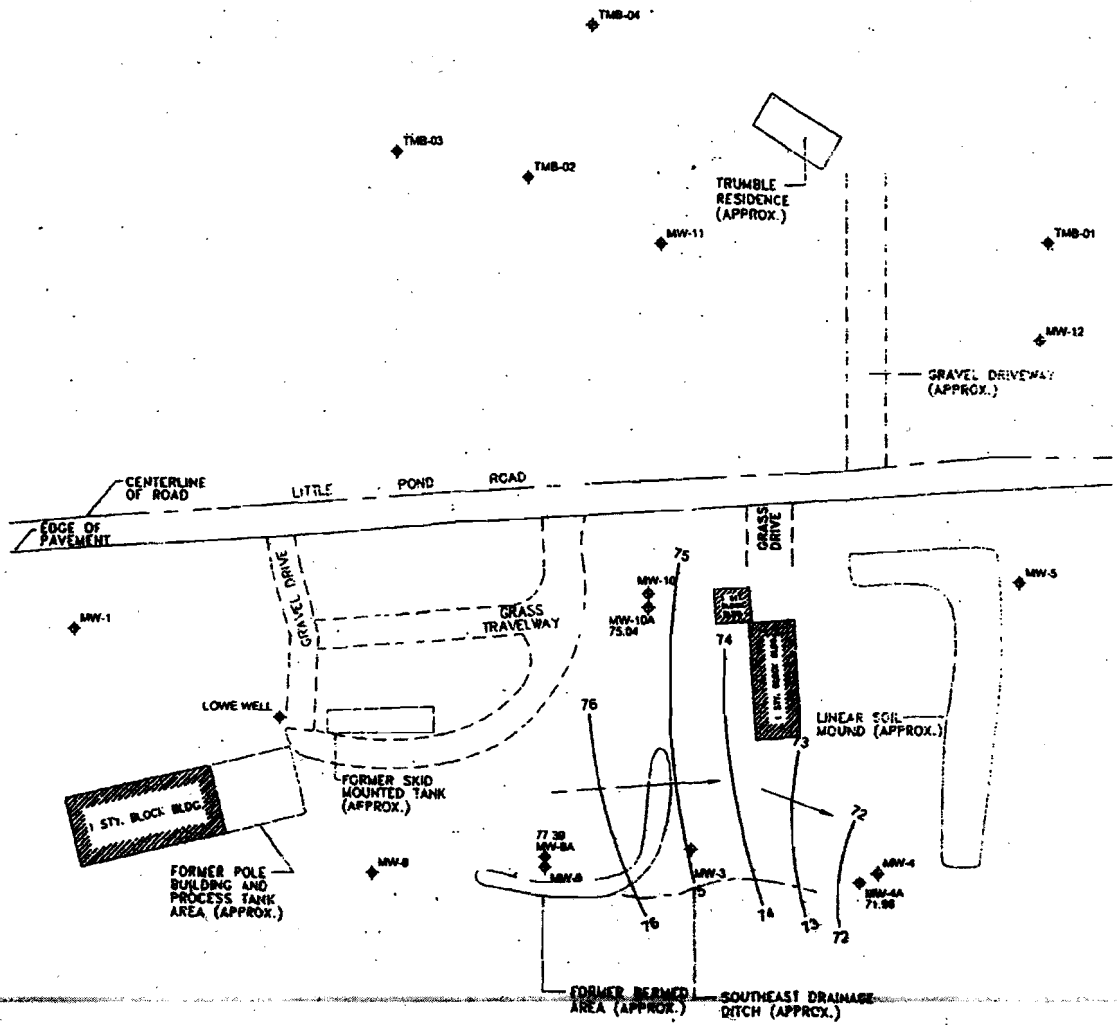
Robert Cozzy, P. E.
Acting Director, Remedial Bureau B
New York State Department of Environmental Conservation

DEPARTMENT OF HEALTH

Date 4/24/09

Steven M. Bates
Assistant Director, Bureau of Environmental Exposure Investigation
New York State Department of Health

ecc: M. J. Peachey, DEC Region 7
G. Townsend, Region 7 DER
K. Anders, DOH
R. Jones, DOH
W. Wertz
E. Hausamann
eDocs
Oswego County Health Department



LEGEND

- MW-1 ◆ EXISTING SHALLOW MONITORING WELL
- MW-2A ◆ EXISTING INTERMEDIATE / DEEP MONITORING WELL
- TMB-01 ◆ OUT OF SERVICE RESIDENTIAL WELLS
- TMB-04 ◆ RESIDENTIAL WATER SUPPLY WELL

NOTES:

1. ELEVATIONS REFERENCED TO FINAL AS-BUILT SURVEY OF COLE-ZAISER SITE DATED AUGUST 6, 2001.
2. NM= NOT MEASURED

N

40 0 40

SCALE IN FEET

URS 10975 El Monte, Suite 100 Overland Park, Kansas 66211

CLIENT:	BORG-WARNER AUTOMOTIVE, INC
LOCATION:	COLE-ZAISER SITE AMBOY, NEW YORK
TITLE:	DEEP GROUNDWATER ELEVATION AND FLOW MAP JUNE 21, 2006

DRAWN BY	CHK'D BY	APPROVED BY
TMS	LBV	LBV
PROJ. NO	DATE	DWG NO
16529746	JULY 2006	3

ENVIRONMENTAL PROTECTION EASEMENT AND

DECLARATION OF RESTRICTIVE COVENANTS

This Environmental Protection Easement and Declaration of Restrictive Covenants is made as of this 26th day of August, 2004, by and between Dorothy J. Lowe ("Grantor"), having an address at 400 North Avenue, Syracuse, NY 13206 and BorgWarner Inc., including any successor-in-interest ("Grantee").

WHEREAS, Dorothy J. Lowe is the owner of a parcel of land (the "Property") located in rural Amboy, County of Oswego, New York, and being more fully described on Attachment A which is incorporated herein.

WHEREAS, the tax parcel identification number for the Property is 195.00-02-16.

WHEREAS, the property was formerly owned and operated by Cole-Zaiser Inc. from about 1973 to 1976 and operated as a waste oil treatment facility ("Cole-Zaiser Site" or "the Site"); the Site is listed as an inactive hazardous waste site as that term is defined a New York State Environmental Conservation Law 27-1301(2); and the site is listed on New York's Registry as Site Number 738013.

WHEREAS, in a Record of Decision issued after a period of public comment on December 9, 1998 (the "ROD"), the New York State Department of Environmental Conservation (NYSDEC) selected a remedial action for the Site, which provided, in part, for the following remedial actions:

(i) removal of the source of contamination from the former bermed area on site by ex situ soil vapor extraction; and (ii) monitoring of residual groundwater contamination.

WHEREAS, BorgWarner Inc., Xerox Corporation, and Atlantic Richfield Company (the "Respondents") entered into a Consent Decree with New York State dated December 28, 2000 ("Consent Decree") in which the parties agree to finance and/or implement the ROD;

WHEREAS, the Respondents have removed the source of the contamination at the Site in accordance with the ROD and will now monitor the shallow groundwater at and down gradient from the Site;

WHEREAS, Ms. Lowe wishes to cooperate with the NYSDEC and the Respondents conducting response actions at the Site;

WHEREAS, the parties hereto have agreed that it is appropriate and necessary to: (i) impose on the Property restrictions to the use of groundwater, and the ground which may contact the water, as covenants which will run with the land for the purpose of protecting human health and the environment by protecting in perpetuity the remedial actions which have been and will take place at the Property; and (ii) grant a permanent right of access to (Grantee(s)) over the Property for purposes of facilitating and monitoring the remedial actions; and

WHEREAS, Respondents shall pay to Ms. Lowe the amount of $1.00 (one dollar) in consideration for this environmental easement, pursuant to a separate agreement that shall be made a part of this easement.

NOW, THEREFORE,

DECLARATIONS, RESTRICTIONS AND EASEMENT

1. GRANT: Grantor, in consideration of the foregoing premises, does hereby covenant and declare that the Property shall be subject to the restrictions on use set forth below, and does give, grant and convey to the Grantee and its assigns, with general warranties of title, (i) the perpetual right to enforce said use restrictions, and (ii) an environmental protection easement of the nature and character, and for the purposes hereafter set forth, with respect to the Property.

2. PURPOSE: The purpose of this instrument is to give the Grantee the right to continue to remediate past environmental contamination as required and reduce the risk of exposure to contaminants for human health and the environment.

3. RESTRICTIONS ON USE: The following covenants, conditions, and restrictions apply to the use of the portion of the Property shown on Figure A ("Restricted Area"), run with the land and are binding on the Grantor:

(i) There shall be no consumptive, extractive, or other use of the shallow groundwater underlying the Restricted Area that could cause exposure of humans or animals to the shallow groundwater underlying the Restricted Area and no installation of new drinking water production wells, except as approved in writing by the NYSDEC;

(ii) The following activities are prohibited in the Restricted Area: on-site excavation, land filling, mining, invasive construction, or drilling, except as approved in writing by the NYSDEC; and

(iii) There shall be no tampering with, or removal of, the monitoring systems that remain on the Property as a result of implementation of any response action by NYSDEC, or any party acting as agent for NYSDEC, including the Grantees hereto.

4. MODIFICATIONS OF RESTRICTIONS: The above restrictions may be modified to be less restrictive, or terminated in whole or in part, by the Grantee. A writing is necessary to effectuate any change and must be recorded against the Property.

5. ENVIRONMENTAL PROTECTION EASEMENT: Grantor hereby grants to the Grantee an irrevocable, permanent and continuing right of access at all reasonable times to the Property. The purposes for such access are:

(i) Implementing additional response actions if required by the NYSDEC, including placement, replacement, modification, operation and maintenance of the ground-

water monitoring system, or sampling of any type of media, including in animals found on the property, in soil, ground water, surface water, wastewater, or sediments;

(ii) Verifying any data or information submitted to NYSDEC;

(iii) Verifying that no action is being taken on the property in violation of the terms of this instrument or of any federal or state environmental laws or regulations;

(iv) Monitoring response actions on the Site and conducting investigations relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils, and specifically, without limitation, obtaining split or duplicate samples;

(v) Conducting periodic review of the response action, including but not limited to, review required by applicable statutes and/or regulations; and

(vi) Implementing additional or new response actions if the Grantee, in its sole discretion, determines (a) that such actions are necessary to protect the environment because either the original remedial action has proven to be ineffective or because new technology has been developed which will accomplish the purposes of the remedial action in a significantly more efficient or cost effective manner; and (b) that the additional or new response actions will not impose any significantly greater burden on the Property or unduly interfere with the then existing uses of the Property.

14. RESERVED RIGHTS OF GRANTOR: Grantor hereby reserves unto itself, its successors, and assigns, all rights and privileges in and to the use of the Property which are not incompatible with the restrictions, rights and easements granted herein.

15. NO UNINTENDED LIMITATION: Nothing in this document shall limit or otherwise affect NYSDEC's rights of entry and access provided by law or regulation

16. NO PUBLIC ACCESS AND USE: No right of access or use by the general public to any portion of the Property is conveyed by this instrument.

17. NOTICE REQUIREMENT: Grantor agrees to include in any instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a notice which is substantially in the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO THE EFFECT OF AN ENVIRONMENTAL PROTECTION EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS, DATED _____, 2004, RECORDED IN THE PUBLIC LAND RECORDS ON _____, 2004, IN BOOK _____, PAGE ____, IN FAVOR OF, AND ENFORCEABLE BY, BORGWARNER INC.

Within thirty (30) days of the date any such instrument of conveyance is filed with the Oswego County Recorder's Office, Grantor must provide Grantee with a certified true copy of said instrument and its recording reference.

19. ENFORCEMENT: The Grantee shall be entitled to enforce the terms of this instrument by resort to specific performance or legal process. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§ 9601 *et seq.* Enforcement of the terms of this instrument shall be at the discretion of the Grantee, and any forbearance, delay or omission to exercise its rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver by the Grantee of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Grantee under this instrument.

20. DAMAGES: Grantee shall be entitled to recover damages for violations of the terms of this instrument, or for any injury to the remedial action, to the public or to the environment protected by this instrument.

21. WAIVER OF CERTAIN DEFENSES: Grantor hereby waives any defense of laches, estoppels, or prescription.

22. COVENANTS: Grantor hereby covenants to and with the Grantee and its assigns, that the Grantor is lawfully seized in fee simple of the Property, that the Grantor has a good and lawful right and power to sell and convey it, and that the Grantor will forever warrant and defend the title thereto and the quiet possession thereof.

23. NOTICES: Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

Dorothy J. Lowe
400 North Avenue
Syracuse, NY 13206

To Grantee:

Corporation Counsel
BorgWarner Inc.
200 S. Michigan Ave., 19th Floor
Chicago, IL 60604

and

Jane E. Montgomery
Schiff Hardin LLP
6600 Sears Tower
Chicago, IL 60606

24. MODIFICATIONS OR RELEASE OF RIGHTS, COVENANTS, CONDITIONS AND RESTRICTIONS: If information becomes available which demonstrates that the rights, covenants, conditions, and restrictions contained in this document may, in whole or in part, be modified or

released consistent with the public interest and the public purpose of protecting human health and the environment, then such rights may be modified or released by the execution of a proper instrument by the Grantor and Grantee and by the recording of this instrument in the Oswego County Recorders' Office.

25. General Provisions:

(i) controlling law: The interpretation and performance of this instrument shall be governed by the laws of the State of New York.

(ii) Liberal construction: Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of the environmental laws of the state. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

(iii) Severability: If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

(iv) Entire Agreement: This instrument sets forth the entire agreement of the parties with respect to the rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein.

(v) No forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

(vi) Joint obligation: If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

(vii) Successors: The covenants, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representative, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The rights of the Grantee and Grantor under this instrument are freely assignable, subject to the notice provisions hereof.

(viii) Termination of Rights and Obligations: A party's rights and obligations under this instrument terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

(ix) Counterparts: The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; and each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

TO HAVE AND TO HOLD unto the Grantee and its assigns forever.

In Witness Whereof, the undersigned have caused this Environmental Protection Easement and Declaration of Restrictive Covenants to be executed.

Executed this 26 day of August 2004.

GRANTOR: Dorothy J. Lowe

Dorothy J Lowe
(Signature)

Signed and acknowledged in the presence of:

(1) Melissa C. Timmons

(2) _____

MELISSA C. TIMMONS
Notary Public in the State of New York
Qualified in Onondaga County
Reg. No. 01TI6041684
My Commission Expires May 15, 2006

STATE OF NEW YORK)
) **SS:**
COUNTY OF Onondaga)

Dorothy J. Lowe acknowledged the foregoing instrument before me this 26th day of August 2004.

Notary Public - State of New York

My commission expires: May 15, 2006