New York State Department of Environmental Conservation
Division of Environmental Remediation • 625 Broadway • Albany, New York 12233-7013

Site Number 7-04-009A

Vestal Water Supply Site Quarterly Report

Third Quarter 2009

New York State Department of Environmental Conservation Work Assignment D004443-4

December 2009

Report Prepared By:

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MALCOLM PIRNIE

Contents

Figures

Tables

Appendices

1. Introduction

The New York State Department of Environmental Conservation (NYSDEC) has issued a Work Assignment (# D004443-4) to Malcolm Pirnie, Inc. (Malcolm Pirnie) for Operation, Maintenance, and Monitoring at the Vestal Water Supply Site in New York State (Site # 7-04-009A). Malcolm Pirnie has prepared this Quarterly Report in accordance with the NYSDEC-approved Work Plan to summarize site activities.

2. Site Description

The Vestal Water Supply (Site 1-1) Site is located on Pumphouse Road, Vestal, Broome County, New York (Figure 2-1), along the southern bank of the Susquehanna River. Well 1-1 is located just south of the Susquehanna River and northwest of an industrial park located along Stage Road. Until 1980, Well 1-1 was the main source of water for Water District 1, which provides drinking water for several areas of the Town of Vestal. Currently, there are two other production wells, Wells 1-2A and 1-3 that function as the main source of water for Water District 1. Well 1-1A was installed in 1993 to replace Well 1-1 and is currently being used to pump and treat groundwater, which is then discharged to the Susquehanna River.

3. Operation and Maintenance

Malcolm Pirnie has maintained continuous operation of the groundwater treatment plant at the Vestal Water Supply Site. This includes the operation, maintenance, and influent/effluent sampling in accordance with the operations and maintenance (O&M) manual (Final Operation and Maintenance Manual, Long-Term Response, Operable Unit 1, Vestal Well 1-1 Site, Vestal, New York, October 2006, Tetra Tech EC, Inc.) (Final O&M Manual). However, as indicated in the Work Assignment, no work was performed on the Vestal Water Supply (Site 1-1) soil vapor extraction system.

As part of managing the Vestal Water Supply Site, Malcolm Pirnie has a subcontract with Environmental Compliance, Inc. (ECI), who has unique knowledge of operating the groundwater treatment plant. ECI provides materials, labor, equipment, and supervision to maintain continuous operation of the groundwater treatment plant.

A variable frequency drive (VFD) was installed in February 2009 to provide soft-start operation for the Well 1-1A replacement well pump motor and reduced torque on the Certa-Lock® PVC drop pipe. The VFD also has the potential to provide future energy savings by allowing the well pump motor to be operated at a reduced speed.

3.1. System Operation and Maintenance

3.1.1. Treatment System Operation

The groundwater treatment system operated with only minor interruptions during the third quarter, 2009. As shown in the Monthly Reports and System O&M Logs provided by ECI (Appendix A), the system was down for two days in July for well maintenance and needed to be restarted two times in August and September, respectively, due to power outages.

The Monthly Reports indicate that the control panel is not providing operation of the air stripper blower in the "Auto" mode; the blower is currently being operated in "Manual" mode. This situation does not affect the effluent groundwater quality discharged from the treatment system. The control panel will be evaluated during the fourth quarter, 2009.

Table 3-1 and Figure 3-1 summarize groundwater treatment system flow rates from the Monthly Reports and System O&M Logs. As shown in Table 3-1, the groundwater treatment system flow rate for Well 1-1A decreased from a maximum of 281 gallons per minute (GPM) in July to 224 GPM in September. Figure 3-1 shows that the Well 1-1A flow rate has decreased by approximately 75 GPM since the well repairs were completed

in February 2009. As shown in Table 3-1, approximately 31,160,000 gallons of water were treated during the third quarter 2009 operating period.

3.1.2. Well Development

In July 2009, Subsurface Technologies developed Well1-1A using their AquaFreed carbon dioxide (CO_2) injection process. The well development was performed as annual maintenance and to evaluate if additional development would improve well yield. On July 13, 2009 the treatment plant was shut down and approximately 2,000 pounds of liquid and vapor-phase CO_2 was injected into Well 1-1A though the AquaGard well maintenance pipe. The system was re-started the following day with minimal improvement in yield observed. As shown in Table 3-1, the average flow through the treatment system in July 2009 was 268 GPM. The average treatment system flow in August and September 2009 decreased to 259 GPM and 227 GPM, respectively.

Following the well development, the VFD setting for Well 1-1A was increased from 48HZ to 51HZ to maintain maximum flow through the treatment plant while sustaining a sufficient water level above the pump intake.

3.1.3. Additional Operation and Maintenance Activities

In September 2009, New York State Electric and Gas (NYSEG) contacted ECI and Malcolm Pirnie to request site access to maintain their cathodic protection system. According to NYSEG, a former cathodic protection system connection was being restored to improve corrosion protection for a nearby buried pipeline; the sub-surface connection was located in the northeast corner of the treatment system property. Malcolm Pirnie informed NYSDEC about the request and the NYSDEC granted NYSEG site access. According to the Monthly Reports, NYSEG was on-site the week of September 7, 2009 to perform the maintenance on their cathodic protection system. The maintenance did not impact treatment system operation. According to NYSEG, their system would be put on-line sometime during the fourth quarter, 2009.

As requested by the NYSDEC, the Well 1-1A cathodic protection system will be assessed by a corrosion engineer from Cathodix in early 2010 to evaluate if the level of corrosion protection for Well 1-1A is appropriate following the startup of NYSEG's system.

As indicated in the ECI Monthly Reports, some areas of the site (located within the perimeter fence) have depressions and/or sparse vegetation created during the pump replacement and well maintenance activities and during NYSEG's maintenance for their cathodic protection system. This does not affect the operation or performance of the treatment plant. Malcolm Pirnie will address this issue if directed by the NYSDEC.

3.2. Influent – Effluent Sampling

Third quarter 2009 influent and effluent groundwater samples were collected from the Well 1-1A treatment system in accordance with the Work Plan. Influent and effluent groundwater samples were sent to Test America Laboratories (formerly Severn Trent Laboratories) following chain-of-custody protocols for analysis of volatile organic compounds (VOCs) by United States Environmental Protection Agency USEPA Method 8260B. The laboratory analytical reporting forms are provided in Appendix B. The laboratory analytical data for the treatment system samples are summarized in Tables 3-2 (influent VOCs) and Table 3-3 (effluent VOCs); Figure 3-2 presents the Well 1-1A treatment plant total influent VOC concentrations over time.

3.2.1. Influent Sample Results

As shown in Table 3-2, influent sample concentrations of 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trichloroethene, and vinyl chloride (with the exception of the July vinyl chloride result (not detected)) are consistent with previous sampling results and exceed the corresponding NYSDEC Class GA Standards in each of the samples collected in the third quarter, 2009; however, Figure 3-2 shows that the total VOCs concentrations detected in the Well 1-1A influent samples have generally increased since the November 2007 sampling event. Methylene chloride (a common laboratory contaminant) was detected in the third quarter influent samples at estimated concentrations (indicated by the "J" qualifier) ranging from 3.9 ug/L in September to 9.1 ug/L in July, 2009, which exceeds the corresponding NYSDEC Class GA Standard of 5 ug/L. Acetone was reported in the July 29, 2009 and August 27, 2009 influent samples at estimated concentrations of 13 ug/L and 23 ug/L, respectively.

3.2.2. Effluent Sample Results

Table 3-3 shows that the July 2009 effluent sample contained 1,1,1-trichloroethene (0.96 ug/L) at a concentration less than the corresponding NYSDEC Class GA Standard of 5 ug/L. The estimated (based on the "J" qualifier) concentrations of acetone (1.8 ug/L), cis-1,2-dichlorethene (0.45 ug/L), and trichloroethene (0.37 ug/L) in the July 2009 effluent samples were also less than their corresponding NYSDEC Class GA Standards. The VOCs cis-1,2-dichlorethene and trichloroethene were detected in the August 2009 effluent samples at estimated concentrations of 0.46 ug/L and 0.29 ug/L, respectively. These results are less than the NYSDEC Class GA Standard of 5 ug/L indicated for these compounds. No VOCs were detected in September 2009 effluent samples.

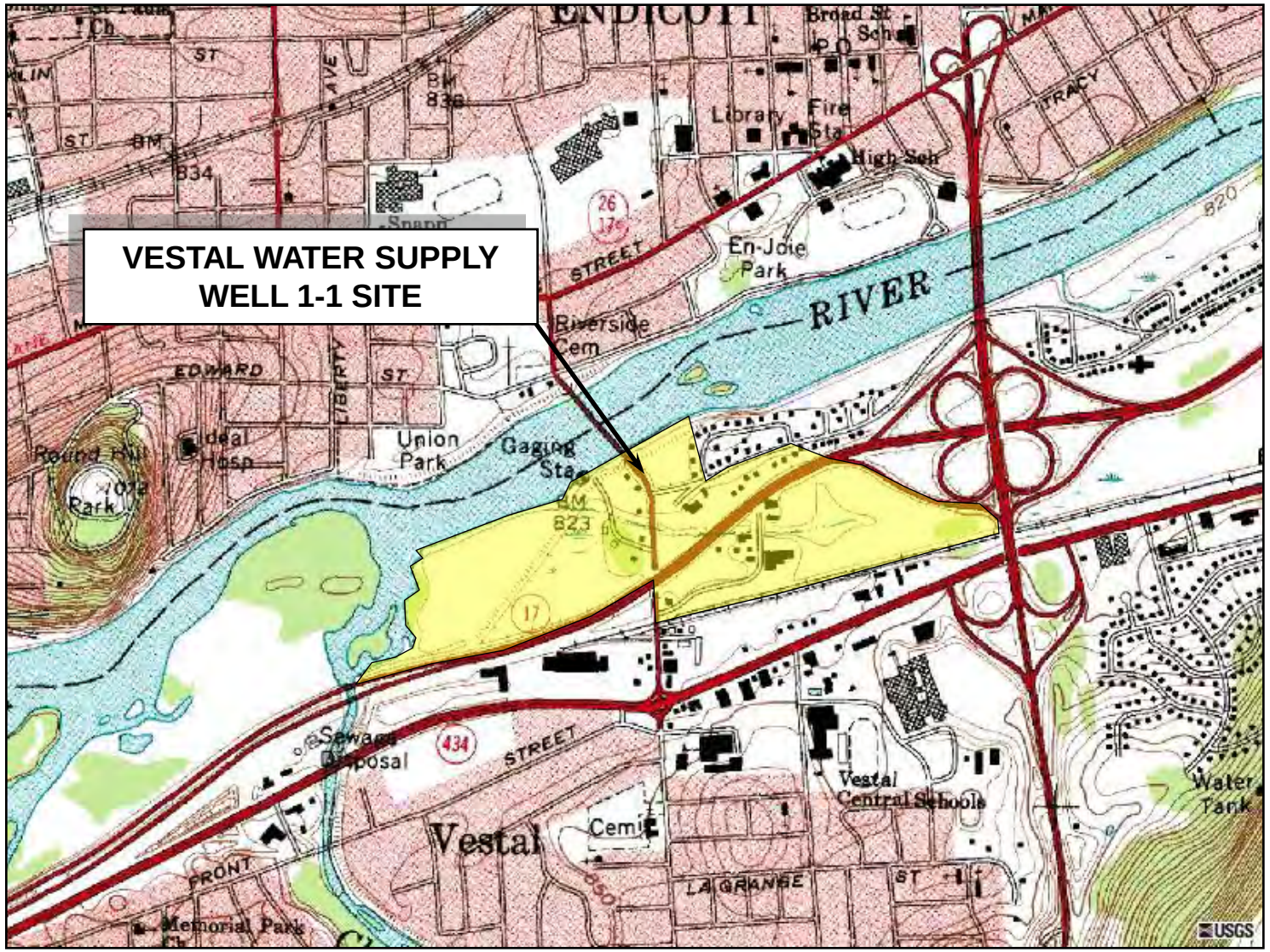
Based on influent sample concentrations and total flow volumes from the Well 1-1A treatment system, approximately 101 pounds of VOCs were removed by the treatment system during the third quarter 2009 operating period.

4. Groundwater Monitoring

Groundwater monitoring wells were sampled in accordance with the Work Plan during the second quarter, 2009. The results of the sampling event were submitted with second quarter 2009 Vestal Water Supply Site Quarterly Report and Annual Groundwater Monitoring Summary (Malcolm Pirnie, 2009). The next annual groundwater monitoring event is scheduled for the first quarter, 2010.

5. Summary

The Vestal Well 1-1A groundwater treatment system operated with only minor interruptions during the third quarter, 2009 operation and maintenance period. Well 1-1A was developed using CO_2; however, no significant improvements in yield were observed. Site access was granted to NYSEG to perform maintenance on their pipeline corrosion protection system. The air stripper blower is operating in manual mode. The system will be evaluated during the next quarter operational period. The average flow rate through the treatment system during this period was 251 GPM, a decrease of approximately 5 percent compared to the average quarterly flow from the second quarter, 2009. Total flow through the treatment system from July 2009 to September 2009 was approximately 31 million gallons. Based on monthly influent and effluent sampling, the treatment system successfully removes VOCs from groundwater extracted from the capture zone. Approximately 101 pounds of VOCs were removed by the treatment system during the third quarter, 2009 operational period.



SCALE IN FEET

0 500 1000 2000

SOURCE: U.S.G.S 7.5 MIN. ONEONTA QUAD, 1988

MALCOLM PIRNIE

NYSDEC STANDBY CONTRACT NO. D004443-4
VESTAL WATER SUPPLY – NYSDEC SITE NO. 7-04-009A
VESTAL, NEW YORK

VESTAL WATER SUPPLY SITE 1-1 LOCATION

FIGURE 2-1

F:\PROJECT\0266352\FILE\Reports\Figure 1-1 Vestal Site Location.ppt

Figure 3-1
Well 1-1A Treatment Plant Flow
Vestal Water Supply Site
NYSDEC Site Number 7-04-009A

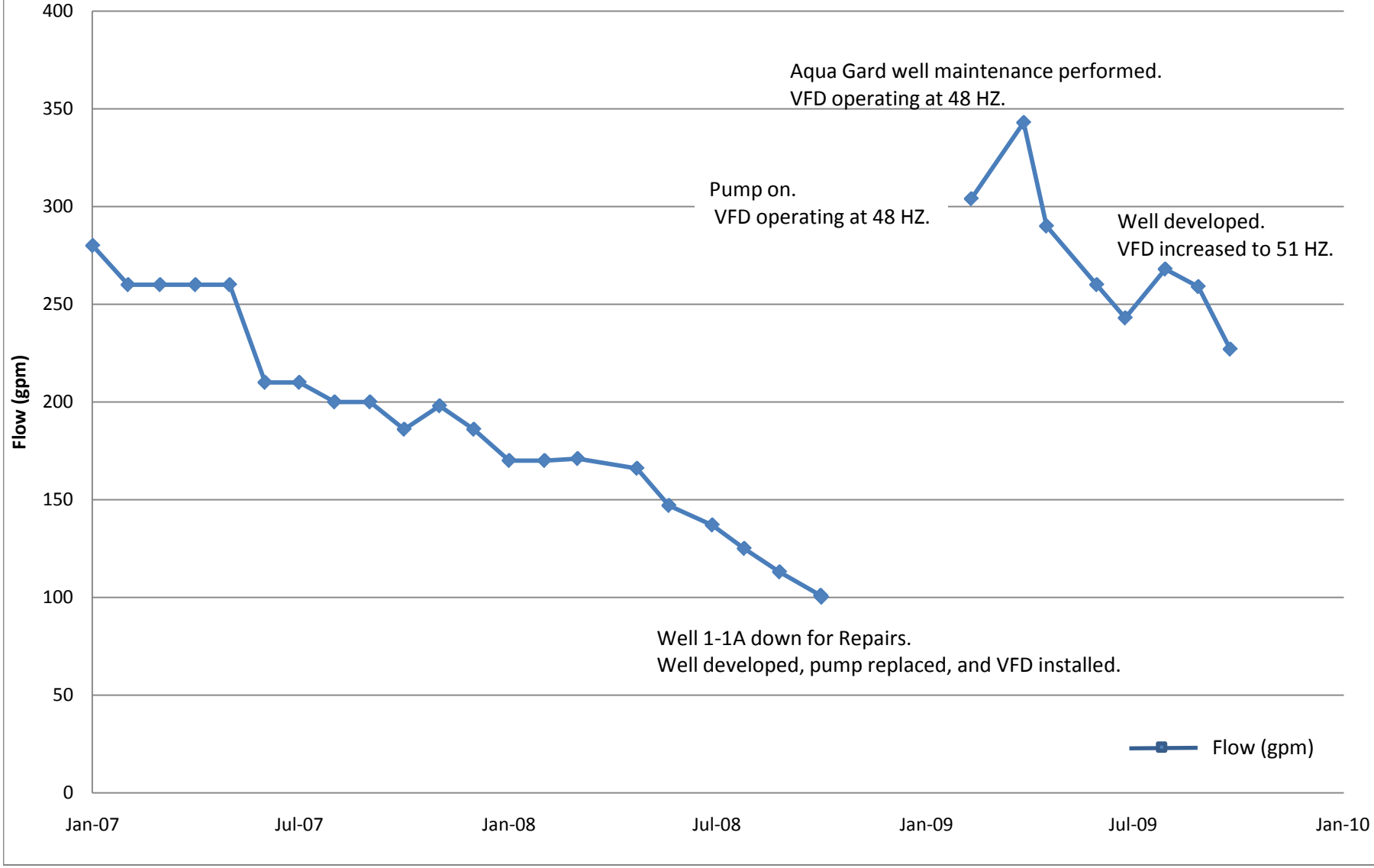


Figure 3-2
Well 1-1A Treatment Plant Total VOCs Concentrations
Vestal Water Supply Site
NYSDEC Site Number 7-04-009A

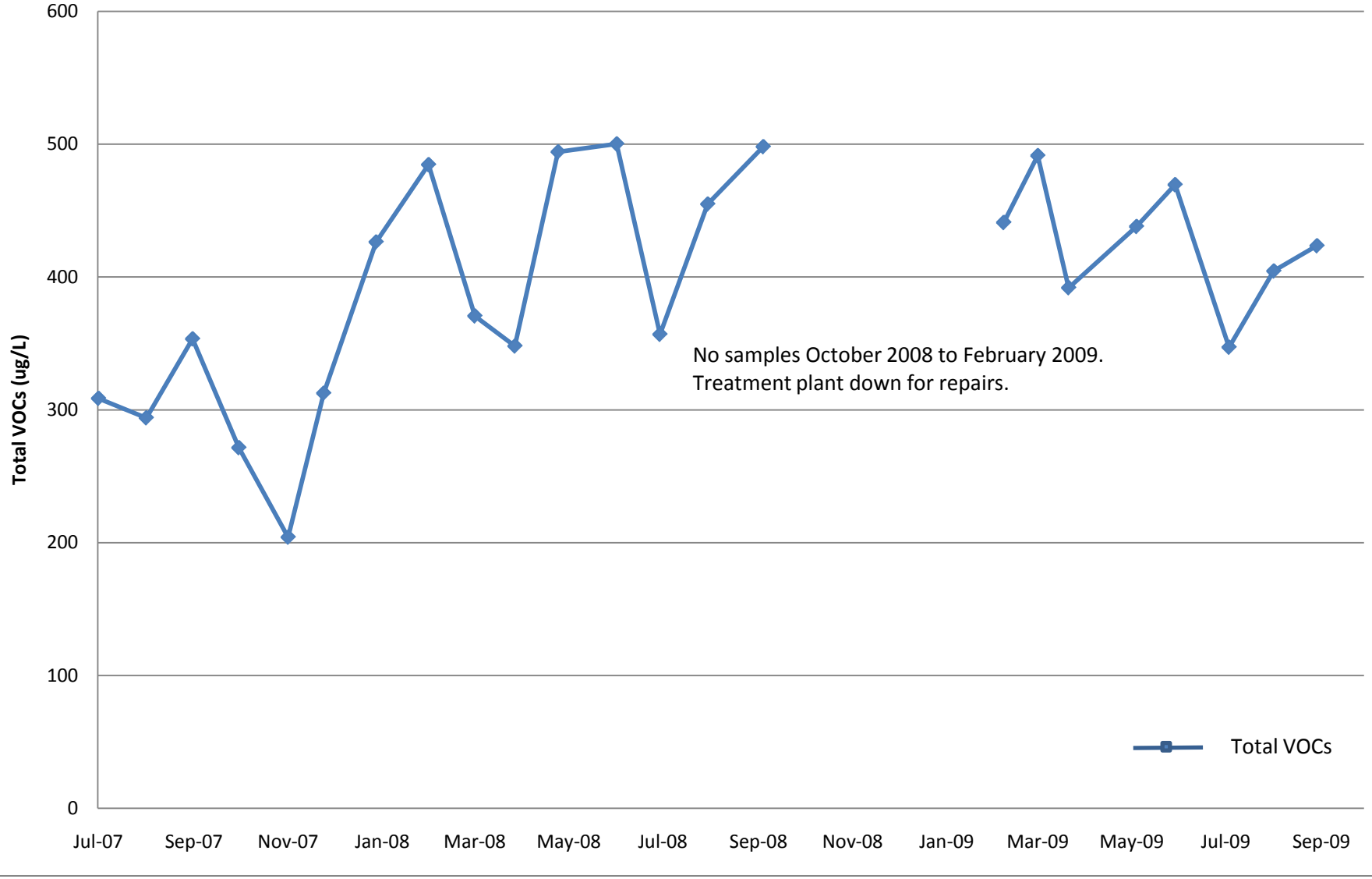


TABLE 3-1
WELL 1-1A FLOW SUMMARY
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE NO. 7-04-009A

Date	System Operation[1] (days/month)	Pumping Rate[1] (gpm)	Total Flow[2] (gallons)	Quarterly Flow (gallons)
January-07	31	280	12,499,200	
February-07	28	260	10,483,200	33,840,000
March-07	29 (3)	260	10,857,600	
April-07	30	260	11,232,000	
May-07	31	260	11,606,400	31,910,400
June-07	30	210	9,072,000	
July-07	31	210	9,374,400	
August-07	31	200	8,928,000	26,942,400
September-07	30	200	8,640,000	
October-07	31	186	8,303,040	
November-07	29	198	8,268,480	24,874,560
December-07	31	186	8,303,040	
January-08	31	170	7,588,800	
February-08	29	170	7,099,200	22,321,440
March-08	31	171	7,633,440	
April-08	30	166	7,171,200	
May-08	31	147	6,562,080	19,651,680
June-08	30	137	5,918,400	
July-08	31	125	5,580,000	
August-08	31	113	5,044,320	14,987,520
September-08	30	101	4,363,200	
October-08	6 (4)	100	864,000	
November-08	0 (4)	0	0	864,000
December-08	0 (4)	0	0	
January-09	0 (4)	0	0	
February-09	19 (4)	304	8,317,440	22,641,120
March-09	29 (3)	343	14,323,680	
April-09	30	290	12,528,000	
May-09	30 (5)	260	11,232,000	34,257,600
June-09	30	243	10,497,600	
July-09	29 (4)	268	11,191,680	
August-09	29 (5)	259	10,815,840	31,160,160
September-09	28 (5)	227	9,152,640	
Total Flow (2007)			**117,567,360**	
Total Flow (2008)			**57,824,640**	
Total Flow (2009)			**88,058,880**	

Notes:
1 - From Environmental Compliance, Inc. O&M Reports and Malcolm Pirnie, Inc. field notes.
2 - Calculated assuming system operating 24-hours per day
3 - System shut down for flooding
4 - System shut down for repairs
5 - System down due to power failure
gpm - Gallons per minute

TABLE 3-2
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (INFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-INF 7/27/2007 WATER ug/L	WELL 1A-INF 8/27/2007 WATER ug/L	WELL 1A-INF 9/26/2007 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	**170**	**160**	**200**
1,1,2,2-Tetrachloroethane	5	10 U	5 U	20 U
1,1,2-Trichloroethane	1	10 U	5 U	20 U
1,1-Dichloroethane	5	**20**	**19**	**23**
1,1-Dichloroethene	5	**12**	**10**	**14 J**
1,2-Dichloroethane	0.6	10 U	5 U	20 U
1,2-Dichloropropane	5	10 U	5 U	20 U
2-Hexanone		20 U	10 U	40 U
Acetone		20 U	10 U	40 U
Benzene	1	10 U	0.39 J	20 U
Bromodichloromethane	50	10 U	5 U	20 U
Bromoform		10 U	5 U	20 U
Bromomethane	5	10 U	5 U	20 U
Carbon disulfide		10 U	5 U	20 U
Carbon tetrachloride	5	10 U	5 U	20 U
Chlorobenzene	5	10 U	5 U	20 U
Chloroethane	5	10 U	5 U	20 U
Chloroform	7	10 U	5 U	20 U
Chloromethane		10 U	5 U	20 U
cis-1,2-Dichloroethene	5	**55**	**54**	**58**
cis-1,3-Dichloropropene	0.4	10 U	5 U	20 U
Dibromochloromethane	50	10 U	5 U	20 U
Ethylbenzene	5	10 U	5 U	20 U
Methyl Ethyl Ketone	50	20 U	10 U	40 U
Methyl Isobutyl Ketone		20 U	10 U	40 U
Methylene Chloride	5	10 U	5 U	20 U *
Styrene	5	10 U	5 U	20 U
Tetrachloroethene	5	1.3 J	5 U	20 U
Toluene	5	10 U	0.15 J	20 U
trans-1,2-Dichloroethene	5	10 U	5 U	20 U
trans-1,3-Dichloropropene	0.4	10 U	5 U	20 U
Trichloroethene	5	**46**	**47**	**53**
Vinyl chloride	2	**4.3 J**	**3.4 J**	**5.4 J**
Xylenes, Total	5	10 U	5 U	20 U

Notes

- Concentration exceeds corresponding NYSDEC Class GA Standard.

U - Not detected at the indicated concentration.
J - Estimated concentration.
M - Manual integrated compound.
B - Analyte found in associated blank as well as the sample.
E - Concentration exceeds instrument calibration range.
* - MS or MSD exceeded control limits.

TABLE 3-2
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (INFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-INF 10/26/2007 WATER ug/L	WELL 1A-INF 11/27/2007 WATER ug/L	WELL 1A-INF 12/20/2007 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	**140**	**110**	**170**
1,1,2,2-Tetrachloroethane	5	5 U	10 U	20 U
1,1,2-Trichloroethane	1	5 U	10 U	20 U
1,1-Dichloroethane	5	**22**	**15**	**24**
1,1-Dichloroethene	5	**11**	**8.2 J**	**13 J**
1,2-Dichloroethane	0.6	5 U	10 U	20 U
1,2-Dichloropropane	5	5 U	10 U	20 U *
2-Hexanone		10 U	20 U	40 U
Acetone		10 U	20 U	40 UM
Benzene	1	5 U	10 U	20 U
Bromodichloromethane	50	5 U	10 U	20 U
Bromoform		5 U	10 U	20 U
Bromomethane	5	5 U	10 U	20 U
Carbon disulfide		5 U	10 U	20 U
Carbon tetrachloride	5	5 U	10 U	20 U
Chlorobenzene	5	5 U	10 U	20 U
Chloroethane	5	5 U	10 U	20 U *
Chloroform	7	5 U	10 U	20 U
Chloromethane		5 U *	10 U	20 U *
cis-1,2-Dichloroethene	5	**50**	**39**	**57**
cis-1,3-Dichloropropene	0.4	5 U	10 U	20 U
Dibromochloromethane	50	5 U	10 U	20 U
Ethylbenzene	5	5 U	10 U	20 U
Methyl Ethyl Ketone	50	10 U	20 U	40 U
Methyl Isobutyl Ketone		10 U	20 U	40 U
Methylene Chloride	5	5 U	10 U M	2.2 JMB
Styrene	5	5 U	10 U	20 U
Tetrachloroethene	5	0.97 J	10 U	20 U
Toluene	5	5 U	10 U	20 U
trans-1,2-Dichloroethene	5	5 U	10 U	20 U
trans-1,3-Dichloropropene	0.4	5 U	10 U	20 U
Trichloroethene	5	**41 B**	**29**	**37**
Vinyl chloride	2	**6.5 ***	**2.9 J**	**9.3 JM**
Xylenes, Total	5	5 U	10 U	20 U

Notes

- Concentration exceeds corresponding NYSDEC Class GA Standard.

U - Not detected at the indicated concentration.
J - Estimated concentration.
M - Manual integrated compound.
B - Analyte found in associated blank as well as the sample.
E - Concentration exceeds instrument calibration range.
* - MS or MSD exceeded control limits.

TABLE 3-2
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (INFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-INF 1/23/2008 WATER ug/L	WELL 1A-INF 2/26/2008 WATER ug/L	WELL 1A-INF 3/27/2008 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	**230**	**250**	**180**
1,1,2,2-Tetrachloroethane	5	10 U	10 U	5 U
1,1,2-Trichloroethane	1	10 U	10 U	5 U
1,1-Dichloroethane	5	**30**	**31**	**27**
1,1-Dichloroethene	5	**18 M**	**18**	**17**
1,2-Dichloroethane	0.6	10 U	10 U	5 U
1,2-Dichloropropane	5	10 U	10 U	5 U
2-Hexanone		20 U *	20 U	10 U
Acetone		20 U *	20 U	10 U
Benzene	1	0.6 J	10 U	0.38 J
Bromodichloromethane	50	10 U	10 U	5 U
Bromoform		10 U	10 U	5 U
Bromomethane	5	10 U *	10 U	5 U
Carbon disulfide		10 U	10 U	5 U
Carbon tetrachloride	5	10 U	**35**	5 U
Chlorobenzene	5	10 U	10 U	5 U
Chloroethane	5	10 U	10 U	0.79 J
Chloroform	7	10 U	10 U	5 U
Chloromethane		10 U	10 U	5 U
cis-1,2-Dichloroethene	5	**71**	**73**	**76**
cis-1,3-Dichloropropene	0.4	10 U	10 U	5 U
Dibromochloromethane	50	10 U	10 U	5 U
Ethylbenzene	5	10 U	10 U	5 U
Methyl Ethyl Ketone	50	20 U *	20 U	10 U
Methyl Isobutyl Ketone		20 U	20 U	10 U
Methylene Chloride	5	0.94 J	10 U	5 U
Styrene	5	10 U	10 U	5 U
Tetrachloroethene	5	10 U	10 U	5 U
Toluene	5	10 U	10 U	5 U
trans-1,2-Dichloroethene	5	10 U	10 U	5 U
trans-1,3-Dichloropropene	0.4	10 U	10 U	5 U
Trichloroethene	5	**62**	**69**	**62**
Vinyl chloride	2	**11**	**8.6 J**	**7.5**
Xylenes, Total	5	2.8 J	10 U	5 U

Notes

- Concentration exceeds corresponding NYSDEC Class GA Standard.

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

E - Concentration exceeds instrument calibration range.

* - MS or MSD exceeded control limits.

TABLE 3-2
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (INFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-INF 4/22/2008 WATER ug/L	WELL 1A-INF 5/20/2008 WATER ug/L	WELL 1A-INF 6/27/2008 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	**180**	**300 E**	**290**
1,1,2,2-Tetrachloroethane	5	10 U	10 U	20 U
1,1,2-Trichloroethane	1	10 U	10 U	20 U
1,1-Dichloroethane	5	**26**	**27**	**28**
1,1-Dichloroethene	5	**9.7 J**	**17**	**20 J**
1,2-Dichloroethane	0.6	10 U	10 U	20 U
1,2-Dichloropropane	5	10 U	10 U	20 U
2-Hexanone		20 U	10 U	40 U
Acetone		20 U	0.5 J B	11 J B
Benzene	1	10 U	10 U	20 U
Bromodichloromethane	50	10 U	10 U	20 U
Bromoform		10 U	10 U	20 U
Bromomethane	5	10 U	10 U	20 U
Carbon disulfide		10 U	10 U	20 U
Carbon tetrachloride	5	10 U	10 U	20 U
Chlorobenzene	5	10 U	10 U	20 U
Chloroethane	5	10 U	10 U	20 U
Chloroform	7	10 U	10 U	20 U
Chloromethane		10 U	10 U	20 U
cis-1,2-Dichloroethene	5	**72**	**78**	**77**
cis-1,3-Dichloropropene	0.4	10 U	10 U	20 U
Dibromochloromethane	50	10 U	10 U	20 U
Ethylbenzene	5	10 U	10 U	20 U
Methyl Ethyl Ketone	50	20 U	10 U	40 U
Methyl Isobutyl Ketone		20 U	10 U	40 U
Methylene Chloride	5	2.2 J B	0.32 JB	3.5 J B
Styrene	5	10 U	10 U	20 U
Tetrachloroethene	5	10 U	10 U	20 U
Toluene	5	10 U	10 U	20 U
trans-1,2-Dichloroethene	5	10 U	10 U	20 U
trans-1,3-Dichloropropene	0.4	10 U	10 U	20 U
Trichloroethene	5	**54 * B**	**65**	**64**
Vinyl chloride	2	**4.1 J**	**6.4 J**	**6.7 J**
Xylenes, Total	5	10 U	10 U	20 U

Notes

- Concentration exceeds corresponding NYSDEC Class GA Standard.

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

E - Concentration exceeds instrument calibration range.

* - MS or MSD exceeded control limits.

TABLE 3-2
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (INFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-INF 7/25/2008 WATER ug/L	WELL 1A-INF 8/25/2008 WATER ug/L	WELL 1A-INF 9/30/2008 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	**220**	**270**	**300**
1,1,2,2-Tetrachloroethane	5	20 U	20 U	25 U
1,1,2-Trichloroethane	1	20 U	20 U	25 U *
1,1-Dichloroethane	5	**23**	**27**	**28**
1,1-Dichloroethene	5	**13 J**	**19 J**	**19 J**
1,2-Dichloroethane	0.6	20 U	20 U	25 U
1,2-Dichloropropane	5	20 U	20 U	25 U
2-Hexanone		40 U	40 U	50 U
Acetone		40 U	4.7 J	5.2 J
Benzene	1	20 U	20 U	25 U
Bromodichloromethane	50	20 U	20 U	25 U
Bromoform		20 U	20 U	25 U
Bromomethane	5	20 U	20 U	25 U
Carbon disulfide		20 U	20 U	25 U
Carbon tetrachloride	5	20 U	20 U	25 U
Chlorobenzene	5	20 U	20 U	25 U
Chloroethane	5	20 U	20 U	25 U
Chloroform	7	20 U	20 U	25 U *
Chloromethane		20 U	20 U	25 U
cis-1,2-Dichloroethene	5	**50**	**68**	**75**
cis-1,3-Dichloropropene	0.4	20 U	20 U	25 U
Dibromochloromethane	50	20 U	20 U	25 U
Ethylbenzene	5	20 U	20 U	25 U
Methyl Ethyl Ketone	50	40 U	40 U	50 U
Methyl Isobutyl Ketone		40 U	40 U	50 U
Methylene Chloride	5	20 U	20 U	25 U
Styrene	5	20 U *	20 U	25 U
Tetrachloroethene	5	20 U	20 U	25 U
Toluene	5	20 U	20 U	25 U
trans-1,2-Dichloroethene	5	20 U	20 U	25 U
trans-1,3-Dichloropropene	0.4	20 U	20 U	25 U
Trichloroethene	5	**45**	**59**	**64**
Vinyl chloride	2	**5.8 J**	**7.2 J**	**6.9 J**
Xylenes, Total	5	20 U	20 U	25 U

Notes

- Concentration exceeds corresponding NYSDEC Class GA Standard.

U - Not detected at the indicated concentration.
J - Estimated concentration.
M - Manual integrated compound.
B - Analyte found in associated blank as well as the sample.
E - Concentration exceeds instrument calibration range.
* - MS or MSD exceeded control limits.

TABLE 3-2
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (INFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-INF 3/5/2009 WATER ug/L	WELL 1A-INF 3/27/2009 WATER ug/L	WELL 1A-INF 4/16/2009 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	**260**	**280**	**220**
1,1,2,2-Tetrachloroethane	5	25 U	2 U	10 U
1,1,2-Trichloroethane	1	25 U	2 U	10 U
1,1-Dichloroethane	5	**28**	**31**	**25**
1,1-Dichloroethene	5	**19 J**	**22 ***	**20**
1,2-Dichloroethane	0.6	25 U	2 U	10 U
1,2-Dichloropropane	5	25 U	2 U	10 U
2-Hexanone		50 U	8 U	20 U
Acetone		50 U	2.3 J *	20 U *
Benzene	1	25 U	2 U	10 U
Bromodichloromethane	50	25 U	2 U	10 U
Bromoform		25 U	2 U	10 U
Bromomethane	5	25 U	4 U	10 U
Carbon disulfide		25 U	2 U	10 U
Carbon tetrachloride	5	25 U	2 U	10 U
Chlorobenzene	5	25 U	2 U	10 U
Chloroethane	5	25 U	4 U	10 U
Chloroform	7	25 U	0.67 J B	10 U
Chloromethane		25 U	2 U	10 U
cis-1,2-Dichloroethene	5	**65**	**63**	**60**
cis-1,3-Dichloropropene	0.4	25 U	2 U	10 U
Dibromochloromethane	50	25 U	2 U	10 U
Ethylbenzene	5	25 U	2 U	10 U
Methyl Ethyl Ketone	50	50 U	8 U	20 U
Methyl Isobutyl Ketone		50 U	8 U	20 U
Methylene Chloride	5	25 U	**7.9 J B**	**2.3 J B**
Styrene	5	25 U	2 U	10 U
Tetrachloroethene	5	25 U	2 U	10 U
Toluene	5	25 U	2 U	10 U
trans-1,2-Dichloroethene	5	25 U	0.51 J	10 U
trans-1,3-Dichloropropene	0.4	25 U	2 U	10 U
Trichloroethene	5	**59**	**58**	**55**
Vinyl chloride	2	**10 J**	**14**	**9.6 J**
Xylenes, Total	5	25 U	**12**	10 U

Notes

- Concentration exceeds corresponding NYSDEC Class GA Standard.

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

E - Concentration exceeds instrument calibration range.

* - MS or MSD exceeded control limits.

TABLE 3-2
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (INFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-INF 5/30/2009 WATER ug/L	WELL 1A-INF 6/24/2009 WATER ug/L	WELL 1A-INF 7/29/2009 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	**250**	**270**	**190**
1,1,2,2-Tetrachloroethane	5	20 U	2 U	2 U
1,1,2-Trichloroethane	1	20 U	2 U	2 U
1,1-Dichloroethane	5	**27**	**27**	**21**
1,1-Dichloroethene	5	**24 ***	**22**	**18 ***
1,2-Dichloroethane	0.6	20 U	2 U	2 U
1,2-Dichloropropane	5	20 U	2 U	2 U
2-Hexanone		40 U	8 U	8 U
Acetone		12 J	10	13 B
Benzene	1	20 U	2 U	2 U
Bromodichloromethane	50	20 U	2 U	2 U
Bromoform		20 U	2 U	2 U
Bromomethane	5	20 U	4 U	4 U
Carbon disulfide		20 U	2 U	2 U
Carbon tetrachloride	5	20 U	2 U	2 U
Chlorobenzene	5	20 U	2 U	2 U
Chloroethane	5	20 U	4 U *	4 U *
Chloroform	7	20 U	2 U	2 U
Chloromethane		20 U	2 U *	2 U
cis-1,2-Dichloroethene	5	**53**	**55**	**49**
cis-1,3-Dichloropropene	0.4	20 U	2 U	2 U
Dibromochloromethane	50	20 U	2 U	2 U
Ethylbenzene	5	20 U	2 U	2 U
Methyl Ethyl Ketone	50	40 U	8 U	8 U
Methyl Isobutyl Ketone		40 U	8 U	8 U
Methylene Chloride	5	**11 J B**	**14**	**9.1**
Styrene	5	20 U	2 U	2 U
Tetrachloroethene	5	20 U	2 U	2 U
Toluene	5	20 U	2 U	2 U
trans-1,2-Dichloroethene	5	20 U	1.5 J	2 U *
trans-1,3-Dichloropropene	0.4	20 U	2 U	2 U
Trichloroethene	5	**50**	**59**	**47**
Vinyl chloride	2	**11 J**	**11**	2 U
Xylenes, Total	5	20 U	4 U	4 U

Notes

- Concentration exceeds corresponding NYSDEC Class GA Standard.

U - Not detected at the indicated concentration.
J - Estimated concentration.
M - Manual integrated compound.
B - Analyte found in associated blank as well as the sample.
E - Concentration exceeds instrument calibration range.
* - MS or MSD exceeded control limits.

TABLE 3-2
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (INFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-INF 8/27/2009 WATER ug/L	WELL 1A-INF 9/24/2009 WATER ug/L
VOCs			
1,1,1-Trichloroethane	5	**220**	**230**
1,1,2,2-Tetrachloroethane	5	2 U	10 U
1,1,2-Trichloroethane	1	2 U	10 U
1,1-Dichloroethane	5	**23**	**26**
1,1-Dichloroethene	5	**19**	**19**
1,2-Dichloroethane	0.6	2 U	10 U
1,2-Dichloropropane	5	2 U	10 U
2-Hexanone		8 U	20 U
Acetone		23	20 U
Benzene	1	2 U	10 U
Bromodichloromethane	50	2 U	10 U
Bromoform		2 U	10 U
Bromomethane	5	4 U	10 U
Carbon disulfide		2 U	10 U
Carbon tetrachloride	5	2 U	10 U
Chlorobenzene	5	2 U	10 U
Chloroethane	5	4 U	10 U
Chloroform	7	2 U	10 U
Chloromethane		2 U	10 U
cis-1,2-Dichloroethene	5	**51**	**70**
cis-1,3-Dichloropropene	0.4	2 U	10 U
Dibromochloromethane	50	2 U	10 U
Ethylbenzene	5	2 U	10 U
Methyl Ethyl Ketone	50	8 U	20 U
Methyl Isobutyl Ketone		8 U	20 U
Methylene Chloride	5	4.9 J B	3.9 J B
Styrene	5	2 U	10 U
Tetrachloroethene	5	2 U	10 U
Toluene	5	2 U	10 U
trans-1,2-Dichloroethene	5	2 U	10 U
trans-1,3-Dichloropropene	0.4	2 U	10 U
Trichloroethene	5	**56**	**66**
Vinyl chloride	2	**7.6**	**8.6 J**
Xylenes, Total	5	4 U	10 U

Notes

- Concentration exceeds corresponding NYSDEC Class GA Standard.

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

E - Concentration exceeds instrument calibration range.

* - MS or MSD exceeded control limits.

TABLE 3-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-EFF 7/27/2007 WATER ug/L	WELL 1A-EFF 8/27/2007 WATER ug/L	WELL 1A-EFF 9/26/2007 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	5 U	5 U
1,1,2-Trichloroethane	1	5 U	5 U	5 U
1,1-Dichloroethane	5	5 U	5 U	5 U
1,1-Dichloroethene	5	5 U	5 U	5 U
1,2-Dichloroethane	0.6	5 U	5 U	5 U
1,2-Dichloropropane	5	5 U	5 U	5 U
2-Hexanone		10 U	10 U	10 U
Acetone		10 U	10 U	10 U
Benzene	1	5 U	5 U	5 U
Bromodichloromethane	50	5 U	5 U	5 U
Bromoform		5 U	5 U	5 U
Bromomethane	5	5 U	5 U	5 U
Carbon disulfide		5 U	5 U	5 U
Carbon tetrachloride	5	5 U	5 U	5 U
Chlorobenzene	5	5 U	5 U	5 U
Chloroethane	5	5 U	5 U	5 U
Chloroform	7	5 U	5 U	5 U
Chloromethane		5 U	5 U	5 U
cis-1,2-Dichloroethene	5	5 U	5 U	5 U
cis-1,3-Dichloropropene	0.4	5 U	5 U	5 U
Dibromochloromethane	50	5 U	5 U	5 U
Ethylbenzene	5	5 U	5 U	5 U
Methyl Ethyl Ketone	50	10 U	10 U	10 U
Methyl Isobutyl Ketone		10 U	10 U	10 U
Methylene Chloride	5	5 U	5 U	5 U *
Styrene	5	5 U	5 U	5 U
Tetrachloroethene	5	5 U	5 U	5 U
Toluene	5	5 U	5 U	5 U
trans-1,2-Dichloroethene	5	5 U	5 U	5 U
trans-1,3-Dichloropropene	0.4	5 U	5 U	5 U
Trichloroethene	5	5 U	5 U	5 U
Vinyl chloride	2	5 U	5 U	5 U
Xylenes, Total	5	5 U	5 U	5 U

Notes

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

* - MS or MSD exceeded control limits.

TABLE 3-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-EFF 10/26/2007 WATER ug/L	WELL 1A-EFF 11/27/2007 WATER ug/L	WELL 1A-EFF 12/20/2007 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	5 U	5 U
1,1,2-Trichloroethane	1	5 U	5 U	5 U
1,1-Dichloroethane	5	5 U	5 U	5 U
1,1-Dichloroethene	5	5 U	5 U	5 U
1,2-Dichloroethane	0.6	5 U	5 U	5 U
1,2-Dichloropropane	5	5 U	5 U	5 U
2-Hexanone		10 U	10 U	10 U
Acetone		10 U	10 U	10 UM
Benzene	1	5 U	5 U	5 U
Bromodichloromethane	50	5 U	5 U	5 U
Bromoform		5 U	5 U	5 U
Bromomethane	5	5 U	5 U	5 U
Carbon disulfide		5 U	5 U	5 U
Carbon tetrachloride	5	5 U	5 U	5 U
Chlorobenzene	5	5 U	5 U	5 U
Chloroethane	5	5 U	5 U	5 U
Chloroform	7	5 U	5 U	5 U
Chloromethane		5 U *	5 U	5 U
cis-1,2-Dichloroethene	5	5 U	5 U	5 U
cis-1,3-Dichloropropene	0.4	5 U	5 U	5 U
Dibromochloromethane	50	5 U	5 U	5 U
Ethylbenzene	5	5 U	5 U	5 U
Methyl Ethyl Ketone	50	10 U	10 U	10 U
Methyl Isobutyl Ketone		10 U	10 U	10 U
Methylene Chloride	5	5 U	5 U	0.38 JB
Styrene	5	5 U	5 U	5 U
Tetrachloroethene	5	5 U	5 U	5 U
Toluene	5	5 U	5 U	5 U
trans-1,2-Dichloroethene	5	5 U	5 U	5 U
trans-1,3-Dichloropropene	0.4	5 U	5 U	5 U
Trichloroethene	5	5 U	5 U	5 U
Vinyl chloride	2	5 U *	5 U	5 U
Xylenes, Total	5	5 U	5 U	5 U

Notes

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

* - MS or MSD exceeded control limits.

TABLE 3-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-EFF 1/23/2008 WATER ug/L	WELL 1A-EFF 2/26/2008 WATER ug/L	WELL 1A-EFF 3/27/2008 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	5 U	5 U
1,1,2-Trichloroethane	1	5 U	5 U	5 U
1,1-Dichloroethane	5	5 U	5 U	5 U
1,1-Dichloroethene	5	5 U	5 U	5 U
1,2-Dichloroethane	0.6	5 U	5 U	5 U
1,2-Dichloropropane	5	5 U	5 U	5 U
2-Hexanone		10 U	10 U	10 U
Acetone		10 U	10 U	10 U
Benzene	1	5 U	5 U	5 U
Bromodichloromethane	50	5 U *	5 U	5 U
Bromoform		5 U	5 U	5 U
Bromomethane	5	5 U *	5 U	5 U
Carbon disulfide		5 U *	5 U	5 U
Carbon tetrachloride	5	5 U	5 U	5 U
Chlorobenzene	5	5 U	5 U	5 U
Chloroethane	5	5 U	5 U	5 U
Chloroform	7	5 U	5 U	5 U
Chloromethane		5 U	5 U	5 U
cis-1,2-Dichloroethene	5	5 U	5 U	5 U
cis-1,3-Dichloropropene	0.4	5 U	5 U	5 U
Dibromochloromethane	50	5 U	5 U	5 U
Ethylbenzene	5	5 U	5 U	5 U
Methyl Ethyl Ketone	50	10 U	10 U	10 U
Methyl Isobutyl Ketone		10 U	10 U	10 U
Methylene Chloride	5	5 U	5 U	1.2 JB
Styrene	5	5 U	5 U	5 U
Tetrachloroethene	5	5 U	5 U	5 U
Toluene	5	5 U	5 U	5 U
trans-1,2-Dichloroethene	5	5 U	5 U	5 U
trans-1,3-Dichloropropene	0.4	5 U	5 U	5 U
Trichloroethene	5	5 U	5 U	5 U
Vinyl chloride	2	5 U	5 U	5 U
Xylenes, Total	5	5 U	5 U	5 U

Notes

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

* - MS or MSD exceeded control limits.

TABLE 3-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-EFF 4/22/2008 WATER ug/L	WELL 1A-EFF 5/20/2008 WATER ug/L	WELL 1A-EFF 6/27/2008 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	5 U	10 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	10 U	5 U
1,1,2-Trichloroethane	1	5 U	10 U	5 U
1,1-Dichloroethane	5	5 U	10 U	5 U
1,1-Dichloroethene	5	5 U	10 U	5 U *
1,2-Dichloroethane	0.6	5 U	10 U	5 U
1,2-Dichloropropane	5	5 U	10 U	5 U
2-Hexanone		10 U	10 U	10 U
Acetone		1.8 J	1.2 J B	10 U
Benzene	1	5 U	10 U	5 U
Bromodichloromethane	50	5 U	10 U	5 U
Bromoform		5 U	10 U	5 U
Bromomethane	5	5 U	10 U	5 U
Carbon disulfide		5 U	10 U	5 U *
Carbon tetrachloride	5	5 U	10 U	5 U
Chlorobenzene	5	5 U	10 U	5 U
Chloroethane	5	5 U	10 U	5 U *
Chloroform	7	5 U	10 U	5 U
Chloromethane		5 U	10 U	5 U
cis-1,2-Dichloroethene	5	5 U	0.3 J	5 U
cis-1,3-Dichloropropene	0.4	5 U	10 U	5 U
Dibromochloromethane	50	5 U	10 U	5 U
Ethylbenzene	5	5 U	10 U	5 U
Methyl Ethyl Ketone	50	10 U	10 U	10 U
Methyl Isobutyl Ketone		10 U	10 U	10 U
Methylene Chloride	5	5 U	0.34 J B	5 U
Styrene	5	5 U	10 U	5 U
Tetrachloroethene	5	5 U	10 U	5 U
Toluene	5	5 U	10 U	5 U
trans-1,2-Dichloroethene	5	5 U	10 U	5 U
trans-1,3-Dichloropropene	0.4	5 U	10 U	5 U
Trichloroethene	5	1.1 J*B	10 U	5 U
Vinyl chloride	2	5 U	10 U	5 U
Xylenes, Total	5	5 U	10 U	5 U

Notes

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

* - MS or MSD exceeded control limits.

TABLE 3-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-EFF 7/25/2008 WATER ug/L	WELL 1A-EFF 8/25/2008 WATER ug/L	WELL 1A-EFF 9/30/2008 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	5 U	5 U
1,1,2-Trichloroethane	1	5 U	5 U	5 U *
1,1-Dichloroethane	5	5 U	5 U	5 U
1,1-Dichloroethene	5	5 U	5 U	5 U
1,2-Dichloroethane	0.6	5 U	5 U	5 U
1,2-Dichloropropane	5	5 U	5 U	5 U
2-Hexanone		10 U	10 U	10 U
Acetone		1 J B	10 U	10 U
Benzene	1	5 U	5 U	5 U
Bromodichloromethane	50	5 U	5 U	5 U
Bromoform		5 U	5 U	5 U
Bromomethane	5	5 U	5 U	5 U
Carbon disulfide		5 U	5 U	5 U
Carbon tetrachloride	5	5 U	5 U	5 U
Chlorobenzene	5	5 U	5 U	5 U
Chloroethane	5	5 U	5 U	5 U
Chloroform	7	5 U	5 U	5 U *
Chloromethane		5 U	5 U	5 U
cis-1,2-Dichloroethene	5	5 U	5 U	5 U
cis-1,3-Dichloropropene	0.4	5 U	5 U	5 U
Dibromochloromethane	50	5 U	5 U	5 U
Ethylbenzene	5	5 U	5 U	5 U
Methyl Ethyl Ketone	50	10 U	10 U	10 U
Methyl Isobutyl Ketone		10 U	10 U	10 U
Methylene Chloride	5	5 U	5 U	5 U
Styrene	5	5 U	5 U	5 U
Tetrachloroethene	5	5 U	5 U	5 U
Toluene	5	5 U	5 U	5 U
trans-1,2-Dichloroethene	5	5 U	5 U	5 U
trans-1,3-Dichloropropene	0.4	5 U	5 U	5 U
Trichloroethene	5	5 U	5 U	5 U
Vinyl chloride	2	5 U	5 U	5 U
Xylenes, Total	5	5 U	5 U	5 U

Notes

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

* - MS or MSD exceeded control limits.

TABLE 3-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-EFF 3/5/2009 WATER ug/L	WELL 1A-EFF 3/27/2009 WATER ug/L	WELL 1A-EFF 4/16/2009 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	1.5 J	0.5 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	0.5 U	5 U
1,1,2-Trichloroethane	1	5 U	0.5 U	5 U
1,1-Dichloroethane	5	5 U	0.27 J	5 U
1,1-Dichloroethene	5	5 U	0.16 J *	5 U
1,2-Dichloroethane	0.6	5 U	0.5 U	5 U
1,2-Dichloropropane	5	5 U	0.5 U	5 U
2-Hexanone		10 U	2 U	10 U
Acetone		1.1 J	2 U *	10 U *
Benzene	1	5 U	0.5 U	5 U
Bromodichloromethane	50	5 U	0.5 U	5 U
Bromoform		5 U	0.5 U	5 U
Bromomethane	5	5 U	1 U	5 U
Carbon disulfide		5 U	0.5 U	5 U
Carbon tetrachloride	5	5 U	0.5 U	5 U
Chlorobenzene	5	5 U	0.5 U	5 U
Chloroethane	5	5 U	1 U	5 U
Chloroform	7	5 U	0.5 U	5 U
Chloromethane		5 U	0.5 U	5 U
cis-1,2-Dichloroethene	5	5 U	0.82	5 U
cis-1,3-Dichloropropene	0.4	5 U	0.5 U	5 U
Dibromochloromethane	50	5 U	0.5 U	5 U
Ethylbenzene	5	5 U	0.5 U	5 U
Methyl Ethyl Ketone	50	10 U	2 U	10 U
Methyl Isobutyl Ketone		10 U	2 U	10 U
Methylene Chloride	5	5 U	2 U	5 U
Styrene	5	5 U	0.5 U	5 U
Tetrachloroethene	5	5 U	0.5 U	5 U
Toluene	5	5 U	0.33 J	5 U
trans-1,2-Dichloroethene	5	5 U	0.5 U	5 U
trans-1,3-Dichloropropene	0.4	5 U	0.5 U	5 U
Trichloroethene	5	5 U	0.5 J	5 U
Vinyl chloride	2	5 U	0.5 U	5 U
Xylenes, Total	5	5 U	3.4	5 U

Notes

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

* - MS or MSD exceeded control limits.

TABLE 3-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-EFF 5/30/2009 WATER ug/L	WELL 1A-EFF 6/24/2009 WATER ug/L	WELL 1A-EFF 7/29/2009 WATER ug/L
VOCs				
1,1,1-Trichloroethane	5	5 U	5 U	0.96
1,1,2,2-Tetrachloroethane	5	5 U	5 U	0.5 U
1,1,2-Trichloroethane	1	5 U	5 U	0.5 U
1,1-Dichloroethane	5	5 U	5 U	0.5 U
1,1-Dichloroethene	5	5 U *	5 U *	0.5 U *
1,2-Dichloroethane	0.6	5 U	5 U	0.5 U
1,2-Dichloropropane	5	5 U	5 U	0.5 U
2-Hexanone		10 U	10 U *	2 U
Acetone		10 U	10 U	1.8 J B
Benzene	1	5 U	5 U	0.5 U
Bromodichloromethane	50	5 U	5 U	0.5 U
Bromoform		5 U	5 U	0.5 U
Bromomethane	5	5 U	5 U	1 U
Carbon disulfide		5 U	5 U	0.5 U
Carbon tetrachloride	5	5 U	5 U	0.5 U
Chlorobenzene	5	5 U	5 U	0.5 U
Chloroethane	5	5 U	5 U	1 U *
Chloroform	7	5 U	5 U	0.5 U
Chloromethane		5 U	5 U *	0.5 U
cis-1,2-Dichloroethene	5	5 U	5 U	0.45 J
cis-1,3-Dichloropropene	0.4	5 U	5 U	0.5 U
Dibromochloromethane	50	5 U	5 U	0.5 U
Ethylbenzene	5	5 U	5 U	0.5 U
Methyl Ethyl Ketone	50	10 U	10 U	2 U
Methyl Isobutyl Ketone		10 U	10 U	2 U
Methylene Chloride	5	5 U	5 U	2 U
Styrene	5	5 U	5 U	0.5 U
Tetrachloroethene	5	5 U	5 U	0.5 U
Toluene	5	5 U	5 U	0.5 U
trans-1,2-Dichloroethene	5	5 U	5 U *	0.5 U *
trans-1,3-Dichloropropene	0.4	5 U	5 U	0.5 U
Trichloroethene	5	5 U	5 U	0.37 J
Vinyl chloride	2	5 U	5 U	0.5 U
Xylenes, Total	5	5 U	5 U	1 U

Notes

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

* - MS or MSD exceeded control limits.

TABLE 3-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
VESTAL WATER SUPPLY
VESTAL, NEW YORK
NYSDEC SITE #7-04-009A

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	WELL 1A-EFF 8/27/2009 WATER ug/L	WELL 1A-EFF 9/24/2009 WATER ug/L
VOCs			
1,1,1-Trichloroethane	5	0.5 U	5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	5 U
1,1,2-Trichloroethane	1	0.5 U	5 U
1,1-Dichloroethane	5	0.5 U	5 U
1,1-Dichloroethene	5	0.5 U	5 U
1,2-Dichloroethane	0.6	0.5 U	5 U
1,2-Dichloropropane	5	0.5 U	5 U
2-Hexanone		2 U	10 U
Acetone		2 U	10 U
Benzene	1	0.5 U	5 U
Bromodichloromethane	50	0.5 U	5 U
Bromoform		0.5 U	5 U
Bromomethane	5	1 U	5 U
Carbon disulfide		0.5 U	5 U
Carbon tetrachloride	5	0.5 U	5 U
Chlorobenzene	5	0.5 U	5 U
Chloroethane	5	1 U	5 U
Chloroform	7	0.5 U	5 U
Chloromethane		0.5 U	5 U
cis-1,2-Dichloroethene	5	0.46 J	5 U
cis-1,3-Dichloropropene	0.4	0.5 U	5 U
Dibromochloromethane	50	0.5 U	5 U
Ethylbenzene	5	0.5 U	5 U
Methyl Ethyl Ketone	50	2 U	10 U
Methyl Isobutyl Ketone		2 U	10 U
Methylene Chloride	5	2 U	5 U
Styrene	5	0.5 U	5 U
Tetrachloroethene	5	0.5 U	5 U
Toluene	5	0.5 U	5 U
trans-1,2-Dichloroethene	5	0.5 U	5 U
trans-1,3-Dichloropropene	0.4	0.5 U	5 U
Trichloroethene	5	0.29 J	5 U
Vinyl chloride	2	0.5 U	5 U
Xylenes, Total	5	1 U	5 U

Notes

U - Not detected at the indicated concentration.

J - Estimated concentration.

M - Manual integrated compound.

B - Analyte found in associated blank as well as the sample.

* - MS or MSD exceeded control limits.

New York State Department of Environmental Conservation
Vestal Water Supply Site Quarterly Report

Appendix A

Monthly Reports and System Operation and Maintenance Logs

MALCOLM PIRNIE

ENVIRONMENTAL COMPLIANCE, INC.
101 Mount Bethel Rd.
Warren, New Jersey 07059
908-754-1700
908-754-1866 (fax)
http://www.eci-nj.com
j.jimenez@eci-nj.com (email)

Vestal Well 1-1 Monthly Report
July 2009

SECTION I – SUMMARY OF ACTIVITIES

System operated entire month except for 2 days during which the well was treated with CO2 to increase production. System continues to run in manual mode due to ongoing problem with control panel. System flow ranged from 240 GPM prior to CO2 treatment to 281 GPM immediately after treatment.

Routine system checks are recorded on attached log. Routine maintenance activities conducted during the month are outlined below.

SECTION II – MONTHLY OPERATIONS & MAINTENANCE

- Routine inspection of site
- Cleaned up litter
- Cut grass
- Checked belts and changed air filters on blower

SECTION III – REPAIR WORK COMPLETED

- None

SECTION IV – REPAIR WORK NEEDED

- Repair control panel
- Fill depressions created during pump replacement

SECTION V – RECOMMENDATIONS

- Repair control panel
- Fill depressions.

ENVIRONMENTAL COMPLIANCE, INC.
101 Mount Bethel Rd.
Warren, New Jersey 07059
908-754-1700
908-754-1866 (fax)
http://www.eci-nj.com
j.jimenez@eci-nj.com (email)

Vestal Well 1-1 Monthly Report
August 2009

SECTION I – SUMMARY OF ACTIVITIES

System operated entire month but had to be restarted twice due to power outages. System flow ranged from 268 GPM at beginning of month to 251GPM at end of month.

On August 31 a NYSEG representative advised Dick Green that they would be digging up the gas main that runs though the site for maintenance. Dick will notify Jeremy Wyckoff when he receives more information.

Routine system checks are recorded on attached log. Routine maintenance activities conducted during the month are outlined below.

SECTION II – MONTHLY OPERATIONS & MAINTENANCE

- Routine inspection of site
- Cleaned up litter
- Cut grass
- Checked belts and changed air filters on blower

SECTION III – REPAIR WORK COMPLETED

- None

SECTION IV – REPAIR WORK NEEDED

- Control panel auto mode not functioning
- Fill depressions created during pump replacement

SECTION V – RECOMMENDATIONS

- Repair control panel
- Fill depressions.

ENVIRONMENTAL COMPLIANCE, INC.
101 Mount Bethel Rd.
Warren, New Jersey 07059
908-754-1700
908-754-1866 (fax)
http://www.eci-nj.com
j.jimenez@eci-nj.com (email)

Vestal Well 1-1 Monthly Report
September 2009

SECTION I – SUMMARY OF ACTIVITIES

System operated entire month but had to be restarted twice due to power outages. System flow ranged from 229 GPM at beginning of month to 224 GPM at end of month.

Week of September 7th the NYSEG began excavated the gas line on the property and exposed buried electric lines but none of the lines to the property were affected. Excavation remained open for about a week. Area was graded but was not seeded.

Routine system checks are recorded on attached log. Routine maintenance activities conducted during the month are outlined below.

SECTION II – MONTHLY OPERATIONS & MAINTENANCE

- Routine inspection of site
- Cleaned up litter
- Cut grass
- Checked belts and changed air filters on blower

SECTION III – REPAIR WORK COMPLETED

- None

SECTION IV – REPAIR WORK NEEDED

- Control panel auto mode not functioning
- NYSEG needs to seed excavated area.
- Fill ruts previously left by well contractor

SECTION V – RECOMMENDATIONS

- Repair control panel, as needed
- Follow-up on NYSEG site restoration
- Fill ruts.

ENVIRONMENTAL COMPLIANCE, INC.						VESTAL WELL 1-1 MONTHLY O & M LOG															July 2009										
DAY	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**
TIME																															
CHEMICAL BUILDING																															
SUMP PUMP	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
DISCHARGE VALVES	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
FLOW METER (GPM)	240					281							276							275							271				
CHLORINE ROOM																															
GENERAL CONDITION	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
TOWER PACKING INSP.	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
MAIN PUMPHOUSE																															
BLOWER AND MOTOR	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
BLOWER AIR FILTERS	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
ALARM / CONTROL PANEL	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
CLEARWELL LEVEL	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
OTHER*																															
GROUNDS	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
INGROUND TANK LEVEL	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X

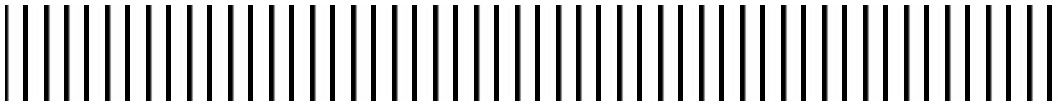
ENVIRONMENTAL COMPLIANCE, INC.										VESTAL WELL 1-1 MONTHLY O & M LOG								August 2009												
DAY	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**
TIME																															
CHEMICAL BUILDING																															
SUMP PUMP	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
DISCHARGE VALVES	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
FLOW METER (GPM)	268									260							258							251							
CHLORINE ROOM																															
GENERAL CONDITION	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
TOWER PACKING INSP.	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
MAIN PUMPHOUSE																															
BLOWER AND MOTOR	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
BLOWER AIR FILTERS	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
ALARM / CONTROL PANEL	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
CLEARWELL LEVEL	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
OTHER*																															
GROUNDS	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X
INGROUND TANK LEVEL	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X

ENVIRONMENTAL COMPLIANCE, INC.						VESTAL WELL 1-1 MONTHLY O & M LOG																									
DAY	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**
TIME																															
CHEMICAL BUILDING																															
SUMP PUMP	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	
DISCHARGE VALVES	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	
FLOW METER (GPM)	229					228								226							224										
CHLORINE ROOM																															
GENERAL CONDITION	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	
TOWER PACKING INSP.	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	
MAIN PUMPHOUSE																															
BLOWER AND MOTOR	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	
BLOWER AIR FILTERS	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	
ALARM / CONTROL PANEL	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	
CLEARWELL LEVEL	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	
OTHER*																															
GROUNDS	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	
INGROUND TANK LEVEL	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	

New York State Department of Environmental Conservation
Vestal Water Supply Site Quarterly Report

Appendix B

Analytical Reporting Forms



0266352 / ALB

MALCOLM PIRNIE

ANALYTICAL REPORT

Job Number: 220-9749-1

SDG Number: 220-9749

Job Description: NYSDEC Standby - Vestal Water Supply

For:
Malcolm Pirnie, Inc.
855 Route 146
Suite 210
Clifton Park, NY 12065

Attention: Mr. Jeremy Wyckoff

Approved for release.
Cheryl Cascella
8/13/2009 3:15 PM

Designee for
Johanna Dubauskas
Project Manager I
johanna.dubauskas@testamericainc.com
08/13/2009

TestAmerica Connecticut Certifications and Approvals: CTDOH PH-047, MADEP CT023, RIDOH A43, NYDOH 10602, NY NELAP 10602, NHDES 2528, NJDEP CT410, ME DOH CT023, UT DOH 2032614458

Table of Contents

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
No analytical or quality issues were noted.

Case Narrative for Job: 220-9749

Client: MPI
Date: August 13, 2009

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

Lawrence Decker
Laboratory Director

August 13, 2009
Date

FORMULAS FOR NYSDEC SAMPLE CALCULATIONS

Volatiles

(Ax)(IS)(DF)
(AIS)(RRF)(V)(% solids) = C

(AX)(IS)(VT)(1000)(DF)
(AIS)(RRF)(VA)(V)(% solids) = C (for medium level soils)

SemiVolatiles

(AX)(IS)(VE)(DF)(GPC factor is 2 if needed)
(AIS)(RRF)(volume injected)(V)(% solids) = C

Pesticides

(AX)(VE)(DF)
(RRF)(V)(% solids)(volume injected) = C

PCBs for compound/retention time

(AX)(VE)(DF)
(RRF of compound at the stated retention time)(V)(% solids)(volume injected) = C

DRO/CTETPH

(AX)(VE)(DF)
(RRF)(V)(% solids)(volume injected) = C

AX = area of the target Ion
AIS = Area of Internal standard
C = concentration as ug/L or ug/Kg
DF = dilution
IS = Internal standard concentration (ng)
RRF = average RF (from initial cal except CLP methods from continuing cal)
V = sample volume for liquids in mls or sample weight for solids in grams
VA = volume of aliquot for medium level soils
VE = volume of concentrated extract
VT = volume of methanol for volatile medium level soils

SAMPLE SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-9749-1
Sdg Number: 220-9749

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
220-9749-1	Well 1-1A INF	Water	07/29/2009 1455	07/30/2009 0945
220-9749-2	Well 1-1A EFF	Water	07/29/2009 1500	07/30/2009 0945
220-9749-3TB	Trip Blank	Water	07/29/2009 0000	07/30/2009 0945

METHOD SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-9749-1
Sdg Number: 220-9749

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL CT	SW846 8260B	
Purge and Trap	TAL CT		SW846 5030B

Lab References:

TAL CT = TestAmerica Connecticut

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-9749-1
Sdg Number: 220-9749

Method	Analyst	Analyst ID
SW846 8260B	Kostrzewska, Barbara	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-9749-1
Sdg Number: 220-9749

Client Sample ID: **Well 1-1A INF**

Lab Sample ID: 220-9749-1
Client Matrix: Water

Date Sampled: 07/29/2009 1455
Date Received: 07/30/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 4.0
Date Analyzed: 08/12/2009 1658
Date Prepared: 08/12/2009 1658

Analysis Batch: 220-30033

Instrument ID: MSW
Lab File ID: W7359.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	13	B	2.3	8.0
Benzene	2.0	U	0.56	2.0
Bromodichloromethane	2.0	U	0.31	2.0
Bromoform	2.0	U	0.52	2.0
Bromomethane	4.0	U	0.84	4.0
Methyl Ethyl Ketone	8.0	U	1.3	8.0
Carbon disulfide	2.0	U	0.31	2.0
Carbon tetrachloride	2.0	U	0.40	2.0
Chlorobenzene	2.0	U	0.23	2.0
Chloroethane	4.0	U *	0.60	4.0
Chloroform	2.0	U	0.48	2.0
Chloromethane	2.0	U	0.80	2.0
Dibromochloromethane	2.0	U	0.35	2.0
1,1-Dichloroethane	21		0.52	2.0
1,2-Dichloroethane	2.0	U	0.48	2.0
1,1-Dichloroethene	18	*	0.76	2.0
cis-1,2-Dichloroethene	49		0.84	2.0
trans-1,2-Dichloroethene	2.0	U *	0.96	2.0
1,2-Dichloropropane	2.0	U	0.44	2.0
cis-1,3-Dichloropropene	2.0	U	0.52	2.0
trans-1,3-Dichloropropene	2.0	U	0.76	2.0
Ethylbenzene	2.0	U	0.56	2.0
2-Hexanone	8.0	U	2.0	8.0
Methylene Chloride	9.1		0.36	8.0
methyl isobutyl ketone	8.0	U	1.2	8.0
Styrene	2.0	U	0.68	2.0
1,1,2,2-Tetrachloroethane	2.0	U	0.60	2.0
Tetrachloroethene	2.0	U	0.44	2.0
Toluene	2.0	U	0.72	2.0
1,1,1-Trichloroethane	190		0.64	2.0
1,1,2-Trichloroethane	2.0	U	0.44	2.0
Trichloroethene	47		0.44	2.0
Vinyl chloride	2.0	U	0.56	2.0
Xylenes, Total	4.0	U	1.2	4.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		57 - 121
4-Bromofluorobenzene	99		57 - 121
Dibromofluoromethane	108		67 - 133
Toluene-d8 (Surr)	103		62 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9749-1
Sdg Number: 220-9749

Client Sample ID: **Well 1-1A EFF**

Lab Sample ID: 220-9749-2
Client Matrix: Water

Date Sampled: 07/29/2009 1500
Date Received: 07/30/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 08/12/2009 1605
Date Prepared: 08/12/2009 1605

Analysis Batch: 220-30033

Instrument ID: MSW
Lab File ID: W7357.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.8	J B	0.58	2.0
Benzene	0.50	U	0.14	0.50
Bromodichloromethane	0.50	U	0.078	0.50
Bromoform	0.50	U	0.13	0.50
Bromomethane	1.0	U	0.21	1.0
Methyl Ethyl Ketone	2.0	U	0.32	2.0
Carbon disulfide	0.50	U	0.077	0.50
Carbon tetrachloride	0.50	U	0.10	0.50
Chlorobenzene	0.50	U	0.057	0.50
Chloroethane	1.0	U *	0.15	1.0
Chloroform	0.50	U	0.12	0.50
Chloromethane	0.50	U	0.20	0.50
Dibromochloromethane	0.50	U	0.088	0.50
1,1-Dichloroethane	0.50	U	0.13	0.50
1,2-Dichloroethane	0.50	U	0.12	0.50
1,1-Dichloroethene	0.50	U *	0.19	0.50
cis-1,2-Dichloroethene	0.45	J	0.21	0.50
trans-1,2-Dichloroethene	0.50	U *	0.24	0.50
1,2-Dichloropropane	0.50	U	0.11	0.50
cis-1,3-Dichloropropene	0.50	U	0.13	0.50
trans-1,3-Dichloropropene	0.50	U	0.19	0.50
Ethylbenzene	0.50	U	0.14	0.50
2-Hexanone	2.0	U	0.51	2.0
Methylene Chloride	2.0	U	0.091	2.0
methyl isobutyl ketone	2.0	U	0.30	2.0
Styrene	0.50	U	0.17	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.15	0.50
Tetrachloroethene	0.50	U	0.11	0.50
Toluene	0.50	U	0.18	0.50
1,1,1-Trichloroethane	0.96		0.16	0.50
1,1,2-Trichloroethane	0.50	U	0.11	0.50
Trichloroethene	0.37	J	0.11	0.50
Vinyl chloride	0.50	U	0.14	0.50
Xylenes, Total	1.0	U	0.30	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		57 - 121
4-Bromofluorobenzene	99		57 - 121
Dibromofluoromethane	105		67 - 133
Toluene-d8 (Surr)	103		62 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9749-1
Sdg Number: 220-9749

Client Sample ID: **Trip Blank**

Lab Sample ID: 220-9749-3TB
Client Matrix: Water

Date Sampled: 07/29/2009 0000
Date Received: 07/30/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 08/12/2009 1631
Date Prepared: 08/12/2009 1631

Analysis Batch: 220-30033

Instrument ID: MSW
Lab File ID: W7358.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.3	B	0.58	2.0
Benzene	0.50	U	0.14	0.50
Bromodichloromethane	0.50	U	0.078	0.50
Bromoform	0.50	U	0.13	0.50
Bromomethane	1.0	U	0.21	1.0
Methyl Ethyl Ketone	2.0	U	0.32	2.0
Carbon disulfide	0.50	U	0.077	0.50
Carbon tetrachloride	0.50	U	0.10	0.50
Chlorobenzene	0.50	U	0.057	0.50
Chloroethane	1.0	U *	0.15	1.0
Chloroform	0.50	U	0.12	0.50
Chloromethane	0.50	U	0.20	0.50
Dibromochloromethane	0.50	U	0.088	0.50
1,1-Dichloroethane	0.50	U	0.13	0.50
1,2-Dichloroethane	0.50	U	0.12	0.50
1,1-Dichloroethene	0.50	U *	0.19	0.50
cis-1,2-Dichloroethene	0.50	U	0.21	0.50
trans-1,2-Dichloroethene	0.50	U *	0.24	0.50
1,2-Dichloropropane	0.50	U	0.11	0.50
cis-1,3-Dichloropropene	0.50	U	0.13	0.50
trans-1,3-Dichloropropene	0.50	U	0.19	0.50
Ethylbenzene	0.50	U	0.14	0.50
2-Hexanone	2.0	U	0.51	2.0
Methylene Chloride	2.0	U	0.091	2.0
methyl isobutyl ketone	2.0	U	0.30	2.0
Styrene	0.50	U	0.17	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.15	0.50
Tetrachloroethene	0.50	U	0.11	0.50
Toluene	0.50	U	0.18	0.50
1,1,1-Trichloroethane	0.50	U	0.16	0.50
1,1,2-Trichloroethane	0.50	U	0.11	0.50
Trichloroethene	0.50	U	0.11	0.50
Vinyl chloride	0.50	U	0.14	0.50
Xylenes, Total	1.0	U	0.30	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		57 - 121
4-Bromofluorobenzene	100		57 - 121
Dibromofluoromethane	106		67 - 133
Toluene-d8 (Surr)	105		62 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9749-1
Sdg Number: 220-9749

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	12DCE %Rec	TOL %Rec	BFB %Rec
220-9749-1	Well 1-1A INF	108	106	103	99
220-9749-2	Well 1-1A EFF	105	106	103	99
220-9749-3	Trip Blank	106	106	105	100
MB 220-30033/3		108	108	103	101
LCS 220-30033/2		114	116	100	97

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane	67-133
12DCE = 1,2-Dichloroethane-d4 (Surr)	57-121
TOL = Toluene-d8 (Surr)	62-121
BFB = 4-Bromofluorobenzene	57-121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9749-1
Sdg Number: 220-9749

Method Blank - Batch: 220-30033

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-30033/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 08/12/2009 1445
Date Prepared: 08/12/2009 1445

Analysis Batch: 220-30033
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W7354.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	1.52	J	0.58	2.0
Benzene	0.50	U	0.14	0.50
Bromodichloromethane	0.50	U	0.078	0.50
Bromoform	0.50	U	0.13	0.50
Bromomethane	1.0	U	0.21	1.0
Methyl Ethyl Ketone	2.0	U	0.32	2.0
Carbon disulfide	0.50	U	0.077	0.50
Carbon tetrachloride	0.50	U	0.10	0.50
Chlorobenzene	0.50	U	0.057	0.50
Chloroethane	1.0	U	0.15	1.0
Chloroform	0.50	U	0.12	0.50
Chloromethane	0.50	U	0.20	0.50
Dibromochloromethane	0.50	U	0.088	0.50
1,1-Dichloroethane	0.50	U	0.13	0.50
1,2-Dichloroethane	0.50	U	0.12	0.50
1,1-Dichloroethene	0.50	U	0.19	0.50
cis-1,2-Dichloroethene	0.50	U	0.21	0.50
trans-1,2-Dichloroethene	0.50	U	0.24	0.50
1,2-Dichloropropane	0.50	U	0.11	0.50
cis-1,3-Dichloropropene	0.50	U	0.13	0.50
trans-1,3-Dichloropropene	0.50	U	0.19	0.50
Ethylbenzene	0.50	U	0.14	0.50
2-Hexanone	2.0	U	0.51	2.0
Methylene Chloride	2.0	U	0.091	2.0
methyl isobutyl ketone	2.0	U	0.30	2.0
Styrene	0.50	U	0.17	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.15	0.50
Tetrachloroethene	0.50	U	0.11	0.50
Toluene	0.50	U	0.18	0.50
1,1,1-Trichloroethane	0.50	U	0.16	0.50
1,1,2-Trichloroethane	0.50	U	0.11	0.50
Trichloroethene	0.50	U	0.11	0.50
Vinyl chloride	0.50	U	0.14	0.50
Xylenes, Total	1.0	U	0.30	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108	57 - 121
4-Bromofluorobenzene	101	57 - 121
Dibromofluoromethane	108	67 - 133
Toluene-d8 (Surr)	103	62 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-9749-1
Sdg Number: 220-9749

Lab Control Sample - Batch: 220-30033

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-30033/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 08/12/2009 1138
Date Prepared: 08/12/2009 1138

Analysis Batch: 220-30033
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W7348.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	10.0	10.1	101	33 - 150	
Benzene	10.0	12.3	123	72 - 123	
Bromodichloromethane	10.0	11.6	116	71 - 128	
Bromoform	10.0	10.7	107	66 - 120	
Bromomethane	10.0	13.4	134	35 - 150	
Methyl Ethyl Ketone	10.0	12.1	121	30 - 150	
Carbon disulfide	10.0	13.4	134	51 - 140	
Carbon tetrachloride	10.0	12.7	127	67 - 134	
Chlorobenzene	10.0	10.7	107	68 - 120	
Chloroethane	10.0	18.7	187	35 - 150	*
Chloroform	10.0	12.0	120	72 - 131	
Chloromethane	10.0	13.0	130	30 - 150	
Dibromochloromethane	10.0	10.8	108	66 - 120	
1,1-Dichloroethane	10.0	12.1	121	74 - 127	
1,2-Dichloroethane	10.0	11.8	118	64 - 136	
1,1-Dichloroethene	10.0	16.2	162	70 - 134	*
cis-1,2-Dichloroethene	10.0	10.8	108	70 - 120	
trans-1,2-Dichloroethene	10.0	13.3	133	63 - 120	*
1,2-Dichloropropane	10.0	11.3	113	71 - 120	
cis-1,3-Dichloropropene	10.0	10.1	101	66 - 120	
trans-1,3-Dichloropropene	10.0	10.0	100	70 - 120	
Ethylbenzene	10.0	11.1	111	63 - 120	
2-Hexanone	10.0	6.64	66	29 - 150	
Methylene Chloride	10.0	13.7	137	47 - 150	
methyl isobutyl ketone	10.0	10.0	100	52 - 137	
Styrene	10.0	9.32	93	52 - 120	
1,1,2,2-Tetrachloroethane	10.0	10.8	108	62 - 129	
Tetrachloroethene	10.0	10.6	106	55 - 120	
Toluene	10.0	11.5	115	64 - 120	
1,1,1-Trichloroethane	10.0	12.1	121	70 - 134	
1,1,2-Trichloroethane	10.0	11.4	114	73 - 126	
Trichloroethene	10.0	11.6	116	66 - 120	
Vinyl chloride	10.0	13.2	132	48 - 150	
Xylenes, Total	30.0	30.4	101	61 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116	57 - 121
4-Bromofluorobenzene	97	57 - 121
Dibromofluoromethane	114	67 - 133
Toluene-d8 (Surr)	100	62 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

DATA REPORTING QUALIFIERS

Client: Malcolm Pirnie, Inc.

Job Number: 220-9749-1
Sdg Number: 220-9749

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	*	LCS or LCSD exceeds the control limits
	B	The analyte was found in an associated blank, as well as in the sample.

Client: Malcolm Pirnie, Inc.

Job Number: 220-9749-1
Sdg Number: 220-9749

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:220-30033					
LCS 220-30033/2	Lab Control Sample	T	Water	8260B	
MB 220-30033/3	Method Blank	T	Water	8260B	
220-9749-1	Well 1-1A INF	T	Water	8260B	
220-9749-2	Well 1-1A EFF	T	Water	8260B	
220-9749-3TB	Trip Blank	T	Water	8260B	

Report Basis
T = Total

Client: Malcolm Pirnie, Inc.

Job Number: 220-9749-1
SDG: 220-9749

Laboratory Chronicle

Lab ID: 220-9749-1 **Client ID: Well 1-1A INF**

Sample Date/Time: 07/29/2009 14:55 Received Date/Time: 07/30/2009 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9749-A-1		220-30033		08/12/2009 16:58	4	TAL CT	BK
A:8260B	220-9749-A-1		220-30033		08/12/2009 16:58	4	TAL CT	BK

Lab ID: 220-9749-2 **Client ID: Well 1-1A EFF**

Sample Date/Time: 07/29/2009 15:00 Received Date/Time: 07/30/2009 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9749-B-2		220-30033		08/12/2009 16:05	1	TAL CT	BK
A:8260B	220-9749-B-2		220-30033		08/12/2009 16:05	1	TAL CT	BK

Lab ID: 220-9749-3 **Client ID: Trip Blank**

Sample Date/Time: 07/29/2009 00:00 Received Date/Time: 07/30/2009 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9749-A-3		220-30033		08/12/2009 16:31	1	TAL CT	BK
A:8260B	220-9749-A-3		220-30033		08/12/2009 16:31	1	TAL CT	BK

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 220-30033/3		220-30033		08/12/2009 14:45	1	TAL CT	BK
A:8260B	MB 220-30033/3		220-30033		08/12/2009 14:45	1	TAL CT	BK

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 220-30033/2		220-30033		08/12/2009 11:38	1	TAL CT	BK
A:8260B	LCS 220-30033/2		220-30033		08/12/2009 11:38	1	TAL CT	BK

Lab References:
TAL CT = TestAmerica Connecticut

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 220-9984-1

SDG Number: 220-9984

Job Description: NYSDEC Standby - Vestal Water Supply

For:
Malcolm Pirnie, Inc.
855 Route 146
Suite 210
Clifton Park, NY 12065

Attention: Mr. Jeremy Wyckoff

Approved for release.
Joan Widomski
9/15/2009 5:37 PM

Designee for
Johanna Dubauskas
Project Manager I
johanna.dubauskas@testamericainc.com
09/15/2009

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Project Manager.

TestAmerica Connecticut Certifications and Approvals: CTDOH PH-047, MADEP CT023, RIDOH A43, NYDOH 10602, NY NELAP 10602, NHDES 2528, NJDEP CT410, ME DOH CT023, UT DOH 2032614458

Table of Contents

Table of Contents

Case Narrative for Job: 220-9984-1

Client: Malcolm Pirnie, Inc.
Date: September 14, 2009

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

Lawrence Decker
Laboratory Director

September 14, 2009
Date

Comments
No additional comments.

Receipt
The following Field QC sample was received at the laboratory with no sample collection time documented on the chain of custody: Trip Blank (220-9984-3). As a result, a sample collection time of 12:00 a.m. on the date of collection has been used.

All other samples were received in good condition within temperature requirements.

GC/MS VOA
No analytical or quality issues were noted.

FORMULAS FOR NYSDEC SAMPLE CALCULATIONS

Volatiles

$$\frac{(Ax)(IS)(DF)}{(AIS)(RRF)(V)(\%\ solids)} = C$$

$$\frac{(AX)(IS)(VT)(1000)(DF)}{(AIS)(RRF)(VA)(V)(\%\ solids)} = C \quad \text{(for medium level soils)}$$

SemiVolatiles

$$\frac{(AX)(IS)(VE)(DF)(\text{GPC factor is 2 if needed})}{(AIS)(RRF)(\text{volume injected})(V)(\%\ solids)} = C$$

Pesticides

$$\frac{(AX)(VE)(DF)}{(RRF)(V)(\%\ solids)(\text{volume injected})} = C$$

PCBs for compound/retention time

$$\frac{(AX)(VE)(DF)}{(\text{RRF of compound at the stated retention time})(V)(\%\ solids)(\text{volume injected})} = C$$

DRO/CTETPH

$$\frac{(AX)(VE)(DF)}{(RRF)(V)(\%\ solids)(\text{volume injected})} = C$$

AX = area of the target Ion
AIS = Area of Internal standard
C = concentration as ug/L or ug/Kg
DF = dilution
IS = Internal standard concentration (ng)
RRF = average RF (from initial cal except CLP methods from continuing cal)
V = sample volume for liquids in mls or sample weight for solids in grams
VA = volume of aliquot for medium level soils
VE = volume of concentrated extract
VT = volume of methanol for volatile medium level soils

SAMPLE SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
Sdg Number: 220-9984

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
220-9984-1	Well 1-1A INF	Water	08/27/2009 0705	08/28/2009 0930
220-9984-2	Well 1-1A EFF	Water	08/27/2009 0710	08/28/2009 0930
220-9984-3TB	Trip Blank	Water	08/27/2009 0000	08/28/2009 0930

EXECUTIVE SUMMARY - Detections

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
Sdg Number: 220-9984

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
220-9984-1	**WELL 1-1A INF**					
Acetone		23		8.0	ug/L	8260B
1,1-Dichloroethane		23		2.0	ug/L	8260B
1,1-Dichloroethene		19		2.0	ug/L	8260B
cis-1,2-Dichloroethene		51		2.0	ug/L	8260B
Methylene Chloride		4.9	J B	8.0	ug/L	8260B
1,1,1-Trichloroethane		220		2.0	ug/L	8260B
Trichloroethene		56		2.0	ug/L	8260B
Vinyl chloride		7.6		2.0	ug/L	8260B
220-9984-2	**WELL 1-1A EFF**					
cis-1,2-Dichloroethene		0.46	J	0.50	ug/L	8260B
Trichloroethene		0.29	J	0.50	ug/L	8260B
220-9984-3TB	**TRIP BLANK**					
Acetone		1.0	J	2.0	ug/L	8260B

METHOD SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
Sdg Number: 220-9984

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL CT	SW846 8260B	
Purge and Trap	TAL CT		SW846 5030B

Lab References:

TAL CT = TestAmerica Connecticut

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
Sdg Number: 220-9984

Method	Analyst	Analyst ID
SW846 8260B	Kostrzewska, Barbara	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
Sdg Number: 220-9984

Client Sample ID: **Well 1-1A INF**

Lab Sample ID: 220-9984-1
Client Matrix: Water

Date Sampled: 08/27/2009 0705
Date Received: 08/28/2009 0930

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 4.0
Date Analyzed: 08/31/2009 1206
Date Prepared: 08/31/2009 1206

Analysis Batch: 220-30730

Instrument ID: MSW
Lab File ID: W7870.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	23		2.3	8.0
Benzene	2.0	U	0.56	2.0
Bromodichloromethane	2.0	U	0.31	2.0
Bromoform	2.0	U	0.52	2.0
Bromomethane	4.0	U	0.84	4.0
Methyl Ethyl Ketone	8.0	U	1.3	8.0
Carbon disulfide	2.0	U	0.31	2.0
Carbon tetrachloride	2.0	U	0.40	2.0
Chlorobenzene	2.0	U	0.23	2.0
Chloroethane	4.0	U	0.60	4.0
Chloroform	2.0	U	0.48	2.0
Chloromethane	2.0	U	0.80	2.0
Dibromochloromethane	2.0	U	0.35	2.0
1,1-Dichloroethane	23		0.52	2.0
1,2-Dichloroethane	2.0	U	0.48	2.0
1,1-Dichloroethene	19		0.76	2.0
cis-1,2-Dichloroethene	51		0.84	2.0
trans-1,2-Dichloroethene	2.0	U	0.96	2.0
1,2-Dichloropropane	2.0	U	0.44	2.0
cis-1,3-Dichloropropene	2.0	U	0.52	2.0
trans-1,3-Dichloropropene	2.0	U	0.76	2.0
Ethylbenzene	2.0	U	0.56	2.0
2-Hexanone	8.0	U	2.0	8.0
Methylene Chloride	4.9	J B	0.36	8.0
methyl isobutyl ketone	8.0	U	1.2	8.0
Styrene	2.0	U	0.68	2.0
1,1,2,2-Tetrachloroethane	2.0	U	0.60	2.0
Tetrachloroethene	2.0	U	0.44	2.0
Toluene	2.0	U	0.72	2.0
1,1,1-Trichloroethane	220		0.64	2.0
1,1,2-Trichloroethane	2.0	U	0.44	2.0
Trichloroethene	56		0.44	2.0
Vinyl chloride	7.6		0.56	2.0
Xylenes, Total	4.0	U	1.2	4.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111		57 - 121
4-Bromofluorobenzene	95		57 - 121
Dibromofluoromethane	118		67 - 133
Toluene-d8 (Surr)	107		62 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
Sdg Number: 220-9984

Client Sample ID: **Well 1-1A EFF**

Lab Sample ID: 220-9984-2
Client Matrix: Water

Date Sampled: 08/27/2009 0710
Date Received: 08/28/2009 0930

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 08/31/2009 1141
Date Prepared: 08/31/2009 1141

Analysis Batch: 220-30730

Instrument ID: MSW
Lab File ID: W7869.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.0	U	0.58	2.0
Benzene	0.50	U	0.14	0.50
Bromodichloromethane	0.50	U	0.078	0.50
Bromoform	0.50	U	0.13	0.50
Bromomethane	1.0	U	0.21	1.0
Methyl Ethyl Ketone	2.0	U	0.32	2.0
Carbon disulfide	0.50	U	0.077	0.50
Carbon tetrachloride	0.50	U	0.10	0.50
Chlorobenzene	0.50	U	0.057	0.50
Chloroethane	1.0	U	0.15	1.0
Chloroform	0.50	U	0.12	0.50
Chloromethane	0.50	U	0.20	0.50
Dibromochloromethane	0.50	U	0.088	0.50
1,1-Dichloroethane	0.50	U	0.13	0.50
1,2-Dichloroethane	0.50	U	0.12	0.50
1,1-Dichloroethene	0.50	U	0.19	0.50
cis-1,2-Dichloroethene	0.46	J	0.21	0.50
trans-1,2-Dichloroethene	0.50	U	0.24	0.50
1,2-Dichloropropane	0.50	U	0.11	0.50
cis-1,3-Dichloropropene	0.50	U	0.13	0.50
trans-1,3-Dichloropropene	0.50	U	0.19	0.50
Ethylbenzene	0.50	U	0.14	0.50
2-Hexanone	2.0	U	0.51	2.0
Methylene Chloride	2.0	U	0.091	2.0
methyl isobutyl ketone	2.0	U	0.30	2.0
Styrene	0.50	U	0.17	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.15	0.50
Tetrachloroethene	0.50	U	0.11	0.50
Toluene	0.50	U	0.18	0.50
1,1,1-Trichloroethane	0.50	U	0.16	0.50
1,1,2-Trichloroethane	0.50	U	0.11	0.50
Trichloroethene	0.29	J	0.11	0.50
Vinyl chloride	0.50	U	0.14	0.50
Xylenes, Total	1.0	U	0.30	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	117		57 - 121
4-Bromofluorobenzene	96		57 - 121
Dibromofluoromethane	120		67 - 133
Toluene-d8 (Surr)	106		62 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
Sdg Number: 220-9984

Client Sample ID: **Trip Blank**

Lab Sample ID: 220-9984-3TB
Client Matrix: Water

Date Sampled: 08/27/2009 0000
Date Received: 08/28/2009 0930

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 09/09/2009 1847
Date Prepared: 09/09/2009 1847

Analysis Batch: 220-31034

Instrument ID: MSW
Lab File ID: W8008.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.0	J	0.58	2.0
Benzene	0.50	U	0.14	0.50
Bromodichloromethane	0.50	U	0.078	0.50
Bromoform	0.50	U	0.13	0.50
Bromomethane	1.0	U	0.21	1.0
Methyl Ethyl Ketone	2.0	U	0.32	2.0
Carbon disulfide	0.50	U	0.077	0.50
Carbon tetrachloride	0.50	U	0.10	0.50
Chlorobenzene	0.50	U	0.057	0.50
Chloroethane	1.0	U	0.15	1.0
Chloroform	0.50	U	0.12	0.50
Chloromethane	0.50	U	0.20	0.50
Dibromochloromethane	0.50	U	0.088	0.50
1,1-Dichloroethane	0.50	U	0.13	0.50
1,2-Dichloroethane	0.50	U	0.12	0.50
1,1-Dichloroethene	0.50	U	0.19	0.50
cis-1,2-Dichloroethene	0.50	U	0.21	0.50
trans-1,2-Dichloroethene	0.50	U	0.24	0.50
1,2-Dichloropropane	0.50	U	0.11	0.50
cis-1,3-Dichloropropene	0.50	U	0.13	0.50
trans-1,3-Dichloropropene	0.50	U	0.19	0.50
Ethylbenzene	0.50	U	0.14	0.50
2-Hexanone	2.0	U	0.51	2.0
Methylene Chloride	2.0	U	0.091	2.0
methyl isobutyl ketone	2.0	U	0.30	2.0
Styrene	0.50	U	0.17	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.15	0.50
Tetrachloroethene	0.50	U	0.11	0.50
Toluene	0.50	U	0.18	0.50
1,1,1-Trichloroethane	0.50	U	0.16	0.50
1,1,2-Trichloroethane	0.50	U	0.11	0.50
Trichloroethene	0.50	U	0.11	0.50
Vinyl chloride	0.50	U	0.14	0.50
Xylenes, Total	1.0	U	0.30	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		57 - 121
4-Bromofluorobenzene	96		57 - 121
Dibromofluoromethane	102		67 - 133
Toluene-d8 (Surr)	94		62 - 121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
Sdg Number: 220-9984

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	12DCE %Rec	TOL %Rec	BFB %Rec
220-9984-1	Well 1-1A INF	118	111	107	95
220-9984-2	Well 1-1A EFF	120	117	106	96
220-9984-3	Trip Blank	102	99	94	96
MB 220-30730/3		115	114	106	98
MB 220-31034/8		100	94	96	98
LCS 220-30730/2		110	107	110	93
LCS 220-31034/7		109	107	87	86

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane	67-133
12DCE = 1,2-Dichloroethane-d4 (Surr)	57-121
TOL = Toluene-d8 (Surr)	62-121
BFB = 4-Bromofluorobenzene	57-121

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
Sdg Number: 220-9984

Method Blank - Batch: 220-30730

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-30730/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 08/31/2009 1116
Date Prepared: 08/31/2009 1116

Analysis Batch: 220-30730
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W7868.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	2.0	U	0.58	2.0
Benzene	0.50	U	0.14	0.50
Bromodichloromethane	0.50	U	0.078	0.50
Bromoform	0.50	U	0.13	0.50
Bromomethane	1.0	U	0.21	1.0
Methyl Ethyl Ketone	2.0	U	0.32	2.0
Carbon disulfide	0.50	U	0.077	0.50
Carbon tetrachloride	0.50	U	0.10	0.50
Chlorobenzene	0.50	U	0.057	0.50
Chloroethane	1.0	U	0.15	1.0
Chloroform	0.50	U	0.12	0.50
Chloromethane	0.50	U	0.20	0.50
Dibromochloromethane	0.50	U	0.088	0.50
1,1-Dichloroethane	0.50	U	0.13	0.50
1,2-Dichloroethane	0.50	U	0.12	0.50
1,1-Dichloroethene	0.50	U	0.19	0.50
cis-1,2-Dichloroethene	0.50	U	0.21	0.50
trans-1,2-Dichloroethene	0.50	U	0.24	0.50
1,2-Dichloropropane	0.50	U	0.11	0.50
cis-1,3-Dichloropropene	0.50	U	0.13	0.50
trans-1,3-Dichloropropene	0.50	U	0.19	0.50
Ethylbenzene	0.50	U	0.14	0.50
2-Hexanone	2.0	U	0.51	2.0
Methylene Chloride	0.155	J	0.091	2.0
methyl isobutyl ketone	2.0	U	0.30	2.0
Styrene	0.50	U	0.17	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.15	0.50
Tetrachloroethene	0.50	U	0.11	0.50
Toluene	0.50	U	0.18	0.50
1,1,1-Trichloroethane	0.50	U	0.16	0.50
1,1,2-Trichloroethane	0.50	U	0.11	0.50
Trichloroethene	0.50	U	0.11	0.50
Vinyl chloride	0.50	U	0.14	0.50
Xylenes, Total	1.0	U	0.30	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	114	57 - 121
4-Bromofluorobenzene	98	57 - 121
Dibromofluoromethane	115	67 - 133
Toluene-d8 (Surr)	106	62 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
Sdg Number: 220-9984

Lab Control Sample - Batch: 220-30730

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-30730/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 08/31/2009 1027
Date Prepared: 08/31/2009 1027

Analysis Batch: 220-30730
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W7866.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	10.0	13.8	138	33 - 150	
Benzene	10.0	9.64	96	72 - 123	
Bromodichloromethane	10.0	9.24	92	71 - 128	
Bromoform	10.0	9.22	92	66 - 120	
Bromomethane	10.0	5.31	53	35 - 150	
Methyl Ethyl Ketone	10.0	11.6	116	30 - 150	
Carbon disulfide	10.0	8.69	87	51 - 140	
Carbon tetrachloride	10.0	10.4	104	67 - 134	
Chlorobenzene	10.0	9.10	91	68 - 120	
Chloroethane	10.0	12.2	122	35 - 150	
Chloroform	10.0	9.82	98	72 - 131	
Chloromethane	10.0	7.47	75	30 - 150	
Dibromochloromethane	10.0	9.17	92	66 - 120	
1,1-Dichloroethane	10.0	9.44	94	74 - 127	
1,2-Dichloroethane	10.0	9.30	93	64 - 136	
1,1-Dichloroethene	10.0	11.1	111	70 - 134	
cis-1,2-Dichloroethene	10.0	8.57	86	70 - 120	
trans-1,2-Dichloroethene	10.0	9.94	99	63 - 120	
1,2-Dichloropropane	10.0	8.82	88	71 - 120	
cis-1,3-Dichloropropene	10.0	7.99	80	66 - 120	
trans-1,3-Dichloropropene	10.0	8.80	88	70 - 120	
Ethylbenzene	10.0	9.79	98	63 - 120	
2-Hexanone	10.0	6.81	68	29 - 150	
Methylene Chloride	10.0	9.81	98	47 - 150	
methyl isobutyl ketone	10.0	7.39	74	52 - 137	
Styrene	10.0	8.06	81	52 - 120	
1,1,2,2-Tetrachloroethane	10.0	8.67	87	62 - 129	
Tetrachloroethene	10.0	9.69	97	55 - 120	
Toluene	10.0	9.89	99	64 - 120	
1,1,1-Trichloroethane	10.0	9.90	99	70 - 134	
1,1,2-Trichloroethane	10.0	9.24	92	73 - 126	
Trichloroethene	10.0	9.99	100	66 - 120	
Vinyl chloride	10.0	8.34	83	48 - 150	
Xylenes, Total	30.0	27.7	92	61 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107	57 - 121
4-Bromofluorobenzene	93	57 - 121
Dibromofluoromethane	110	67 - 133
Toluene-d8 (Surr)	110	62 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
Sdg Number: 220-9984

Method Blank - Batch: 220-31034

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-31034/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/09/2009 1821
Date Prepared: 09/09/2009 1821

Analysis Batch: 220-31034
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W8007.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	2.0	U	0.58	2.0
Benzene	0.50	U	0.14	0.50
Bromodichloromethane	0.50	U	0.078	0.50
Bromoform	0.50	U	0.13	0.50
Bromomethane	1.0	U	0.21	1.0
Methyl Ethyl Ketone	2.0	U	0.32	2.0
Carbon disulfide	0.50	U	0.077	0.50
Carbon tetrachloride	0.50	U	0.10	0.50
Chlorobenzene	0.50	U	0.057	0.50
Chloroethane	1.0	U	0.15	1.0
Chloroform	0.50	U	0.12	0.50
Chloromethane	0.50	U	0.20	0.50
Dibromochloromethane	0.50	U	0.088	0.50
1,1-Dichloroethane	0.50	U	0.13	0.50
1,2-Dichloroethane	0.50	U	0.12	0.50
1,1-Dichloroethene	0.50	U	0.19	0.50
cis-1,2-Dichloroethene	0.50	U	0.21	0.50
trans-1,2-Dichloroethene	0.50	U	0.24	0.50
1,2-Dichloropropane	0.50	U	0.11	0.50
cis-1,3-Dichloropropene	0.50	U	0.13	0.50
trans-1,3-Dichloropropene	0.50	U	0.19	0.50
Ethylbenzene	0.50	U	0.14	0.50
2-Hexanone	2.0	U	0.51	2.0
Methylene Chloride	2.0	U	0.091	2.0
methyl isobutyl ketone	2.0	U	0.30	2.0
Styrene	0.50	U	0.17	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.15	0.50
Tetrachloroethene	0.50	U	0.11	0.50
Toluene	0.50	U	0.18	0.50
1,1,1-Trichloroethane	0.50	U	0.16	0.50
1,1,2-Trichloroethane	0.50	U	0.11	0.50
Trichloroethene	0.50	U	0.11	0.50
Vinyl chloride	0.50	U	0.14	0.50
Xylenes, Total	1.0	U	0.30	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94	57 - 121
4-Bromofluorobenzene	98	57 - 121
Dibromofluoromethane	100	67 - 133
Toluene-d8 (Surr)	96	62 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
Sdg Number: 220-9984

Lab Control Sample - Batch: 220-31034

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-31034/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/09/2009 1615
Date Prepared: 09/09/2009 1615

Analysis Batch: 220-31034
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W8002.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	10.0	11.4	114	33 - 150	
Benzene	10.0	10.4	104	72 - 123	
Bromodichloromethane	10.0	10.6	106	71 - 128	
Bromoform	10.0	10.3	103	66 - 120	
Bromomethane	10.0	11.9	119	35 - 150	
Methyl Ethyl Ketone	10.0	10.7	107	30 - 150	
Carbon disulfide	10.0	13.2	132	51 - 140	
Carbon tetrachloride	10.0	9.62	96	67 - 134	
Chlorobenzene	10.0	9.37	94	68 - 120	
Chloroethane	10.0	13.3	133	35 - 150	
Chloroform	10.0	11.5	115	72 - 131	
Chloromethane	10.0	12.3	123	30 - 150	
Dibromochloromethane	10.0	9.73	97	66 - 120	
1,1-Dichloroethane	10.0	9.92	99	74 - 127	
1,2-Dichloroethane	10.0	10.9	109	64 - 136	
1,1-Dichloroethene	10.0	11.2	112	70 - 134	
cis-1,2-Dichloroethene	10.0	8.84	88	70 - 120	
trans-1,2-Dichloroethene	10.0	9.93	99	63 - 120	
1,2-Dichloropropane	10.0	10.3	103	71 - 120	
cis-1,3-Dichloropropene	10.0	8.67	87	66 - 120	
trans-1,3-Dichloropropene	10.0	10.2	102	70 - 120	
Ethylbenzene	10.0	8.43	84	63 - 120	
2-Hexanone	10.0	6.54	65	29 - 150	
Methylene Chloride	10.0	14.3	143	47 - 150	
methyl isobutyl ketone	10.0	9.03	90	52 - 137	
Styrene	10.0	8.03	80	52 - 120	
1,1,2,2-Tetrachloroethane	10.0	10.0	100	62 - 129	
Tetrachloroethene	10.0	8.13	81	55 - 120	
Toluene	10.0	9.26	93	64 - 120	
1,1,1-Trichloroethane	10.0	9.10	91	70 - 134	
1,1,2-Trichloroethane	10.0	11.2	112	73 - 126	
Trichloroethene	10.0	9.26	93	66 - 120	
Vinyl chloride	10.0	9.33	93	48 - 150	
Xylenes, Total	30.0	24.4	81	61 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107	57 - 121
4-Bromofluorobenzene	86	57 - 121
Dibromofluoromethane	109	67 - 133
Toluene-d8 (Surr)	87	62 - 121

Calculations are performed before rounding to avoid round-off errors in calculated results.

DATA REPORTING QUALIFIERS

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
Sdg Number: 220-9984

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	B	The analyte was found in an associated blank, as well as in the sample.

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
Sdg Number: 220-9984

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:220-30730					
LCS 220-30730/2	Lab Control Sample	T	Water	8260B	
MB 220-30730/3	Method Blank	T	Water	8260B	
220-9984-1	Well 1-1A INF	T	Water	8260B	
220-9984-2	Well 1-1A EFF	T	Water	8260B	
Analysis Batch:220-31034					
LCS 220-31034/7	Lab Control Sample	T	Water	8260B	
MB 220-31034/8	Method Blank	T	Water	8260B	
220-9984-3TB	Trip Blank	T	Water	8260B	

Report Basis
T = Total

Client: Malcolm Pirnie, Inc.

Job Number: 220-9984-1
SDG: 220-9984

Laboratory Chronicle

Lab ID: 220-9984-1 **Client ID: Well 1-1A INF**

Sample Date/Time: 08/27/2009 07:05 Received Date/Time: 08/28/2009 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9984-B-1		220-30730		08/31/2009 12:06	4	TAL CT	BK
A:8260B	220-9984-B-1		220-30730		08/31/2009 12:06	4	TAL CT	BK

Lab ID: 220-9984-2 **Client ID: Well 1-1A EFF**

Sample Date/Time: 08/27/2009 07:10 Received Date/Time: 08/28/2009 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9984-B-2		220-30730		08/31/2009 11:41	1	TAL CT	BK
A:8260B	220-9984-B-2		220-30730		08/31/2009 11:41	1	TAL CT	BK

Lab ID: 220-9984-3 **Client ID: Trip Blank**

Sample Date/Time: 08/27/2009 00:00 Received Date/Time: 08/28/2009 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-9984-A-3		220-31034		09/09/2009 18:47	1	TAL CT	BK
A:8260B	220-9984-A-3		220-31034		09/09/2009 18:47	1	TAL CT	BK

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 220-30730/3		220-30730		08/31/2009 11:16	1	TAL CT	BK
A:8260B	MB 220-30730/3		220-30730		08/31/2009 11:16	1	TAL CT	BK
P:5030B	MB 220-31034/8		220-31034		09/09/2009 18:21	1	TAL CT	BK
A:8260B	MB 220-31034/8		220-31034		09/09/2009 18:21	1	TAL CT	BK

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 220-30730/2		220-30730		08/31/2009 10:27	1	TAL CT	BK
A:8260B	LCS 220-30730/2		220-30730		08/31/2009 10:27	1	TAL CT	BK
P:5030B	LCS 220-31034/7		220-31034		09/09/2009 16:15	1	TAL CT	BK
A:8260B	LCS 220-31034/7		220-31034		09/09/2009 16:15	1	TAL CT	BK

Lab References:
TAL CT = TestAmerica Connecticut

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 220-10223-1

SDG Number: 220-10223

Job Description: NYSDEC Standby - Vestal Water Supply

For:
Malcolm Pirnie, Inc.
855 Route 146
Suite 210
Clifton Park, NY 12065

Attention: Mr. Jeremy Wyckoff

Approved for release.
Cheryl Cascella
10/7/2009 2:30 PM

Designee for
Johanna Dubauskas
Project Manager I
johanna.dubauskas@testamericainc.com
10/07/2009

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Project Manager.

TestAmerica Connecticut Certifications and Approvals: CTDOH PH-047, MADEP CT023, RIDOH A43, NYDOH 10602, NY NELAP 10602, NHDES 2528, NJDEP CT410, ME DOH CT023, UT DOH 2032614458

TestAmerica Laboratories, Inc.
TestAmerica Connecticut 128 Long Hill Cross Road, Shelton, CT 06484
Tel (203) 929-8140 Fax (203) 929-8142 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

Table of Contents

Table of Contents

Comments
No additional comments.

Receipt
Cooler received with custody seal broken. Client notified the lab that Federal Express had opened the cooler to prevent any further leakage of water from melted ice. All samples were intact and the lab was instructed to proceed with analysis.

All other samples were received in good condition within temperature requirements.

GC/MS VOA
No analytical or quality issues were noted.

Case Narrative for Job: 220-10223

Client: MPI
Date: October 7, 2009

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

Lawrence Decker
Laboratory Director

October 7, 2009
Date

FORMULAS FOR NYSDEC SAMPLE CALCULATIONS

Volatiles

$$\frac{(Ax)(IS)(DF)}{(AIS)(RRF)(V)(\%\ solids)} = C$$

$$\frac{(AX)(IS)(VT)(1000)(DF)}{(AIS)(RRF)(VA)(V)(\%\ solids)} = C \quad \text{(for medium level soils)}$$

SemiVolatiles

$$\frac{(AX)(IS)(VE)(DF)(GPC\ factor\ is\ 2\ if\ needed)}{(AIS)(RRF)(volume\ injected)(V)(\%\ solids)} = C$$

Pesticides

$$\frac{(AX)(VE)(DF)}{(RRF)(V)(\%\ solids)(volume\ injected)} = C$$

PCBs for compound/retention time

$$\frac{(AX)(VE)(DF)}{(RRF\ of\ compound\ at\ the\ stated\ retention\ time)(V)(\%\ solids)(volume\ injected)} = C$$

DRO/CTETPH

$$\frac{(AX)(VE)(DF)}{(RRF)(V)(\%\ solids)(volume\ injected)} = C$$

AX = area of the target Ion
AIS = Area of Internal standard
C = concentration as ug/L or ug/Kg
DF = dilution
IS = Internal standard concentration (ng)
RRF = average RF (from initial cal except CLP methods from continuing cal)
V = sample volume for liquids in mls or sample weight for solids in grams
VA = volume of aliquot for medium level soils
VE = volume of concentrated extract
VT = volume of methanol for volatile medium level soils

SAMPLE SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
220-10223-1	Well 1-1A INF	Water	09/24/2009 0925	09/25/2009 0945
220-10223-2	Well 1-1A EFF	Water	09/24/2009 0930	09/25/2009 0945
220-10223-3TB	TRIP BLANK	Water	09/24/2009 0000	09/25/2009 0945

METHOD SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL CT	SW846 8260B	
Purge and Trap	TAL CT		SW846 5030B

Lab References:

TAL CT = TestAmerica Connecticut

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Method	Analyst	Analyst ID
SW846 8260B	Kostrzewska, Barbara	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Client Sample ID: **Well 1-1A INF**

Lab Sample ID: 220-10223-1
Client Matrix: Water

Date Sampled: 09/24/2009 0925
Date Received: 09/25/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 2.0
Date Analyzed: 10/02/2009 1226
Date Prepared: 10/02/2009 1226

Analysis Batch: 220-31903

Instrument ID: MSL
Lab File ID: L7978.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	20	U	2.1	20
Benzene	10	U	1.5	10
Bromodichloromethane	10	U	0.96	10
Bromoform	10	U	0.92	10
Bromomethane	10	U	4.2	10
Methyl Ethyl Ketone	20	U	2.2	20
Carbon disulfide	10	U	1.8	10
Carbon tetrachloride	10	U	2.1	10
Chlorobenzene	10	U	1.4	10
Chloroethane	10	U	2.1	10
Chloroform	10	U	1.3	10
Chloromethane	10	U	2.2	10
Dibromochloromethane	10	U	1.1	10
1,1-Dichloroethane	26		2.1	10
1,2-Dichloroethane	10	U	1.4	10
1,1-Dichloroethene	19		1.7	10
1,2-Dichloropropane	10	U	1.4	10
cis-1,3-Dichloropropene	10	U	0.56	10
trans-1,3-Dichloropropene	10	U	1.1	10
Ethylbenzene	10	U	1.7	10
2-Hexanone	20	U	2.2	20
Methylene Chloride	3.9	J B	1.6	10
methyl isobutyl ketone	20	U	0.76	20
Styrene	10	U	1.3	10
1,1,2,2-Tetrachloroethane	10	U	1.6	10
Tetrachloroethene	10	U	1.6	10
Toluene	10	U	1.4	10
1,1,1-Trichloroethane	230		1.4	10
1,1,2-Trichloroethane	10	U	1.3	10
Trichloroethene	66		1.2	10
Vinyl chloride	8.6	J	2.0	10
Xylenes, Total	10	U	4.5	10
cis-1,2-Dichloroethene	70		2.0	10
trans-1,2-Dichloroethene	10	U	1.5	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		65 - 136
4-Bromofluorobenzene	97		51 - 142
Dibromofluoromethane	100		68 - 132
Toluene-d8 (Surr)	100		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Client Sample ID: **Well 1-1A EFF**

Lab Sample ID: 220-10223-2
Client Matrix: Water

Date Sampled: 09/24/2009 0930
Date Received: 09/25/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 10/01/2009 1830
Date Prepared: 10/01/2009 1830

Analysis Batch: 220-31897

Instrument ID: MSL
Lab File ID: L7952.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89		65 - 136
4-Bromofluorobenzene	87		51 - 142
Dibromofluoromethane	92		68 - 132
Toluene-d8 (Surr)	97		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Client Sample ID: TRIP BLANK

Lab Sample ID: 220-10223-3TB
Client Matrix: Water

Date Sampled: 09/24/2009 0000
Date Received: 09/25/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 10/01/2009 1854
Date Prepared: 10/01/2009 1854

Analysis Batch: 220-31897

Instrument ID: MSL
Lab File ID: L7953.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	2.0	J B	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	82		65 - 136
4-Bromofluorobenzene	79		51 - 142
Dibromofluoromethane	82		68 - 132
Toluene-d8 (Surr)	79		63 - 127

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
220-10223-1	Well 1-1A INF	100	99	100	97
220-10223-2	Well 1-1A EFF	92	89	97	87
220-10223-3	TRIP BLANK	82	82	79	79
MB 220-31897/2		82	83	85	75
MB 220-31903/3		91	86	88	82
LCS 220-31897/3		86	85	87	83
LCS 220-31903/2		91	87	95	91
220-10211-B-14 MS		86	82	89	86
220-10211-A-14 MSD		85	80	88	75

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane	68-132
DCA = 1,2-Dichloroethane-d4 (Surr)	65-136
TOL = Toluene-d8 (Surr)	63-127
BFB = 4-Bromofluorobenzene	51-142

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Method Blank - Batch: 220-31897

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-31897/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/01/2009 1148
Date Prepared: 10/01/2009 1148

Analysis Batch: 220-31897
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L7935.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	3.55	J	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	83	65 - 136
4-Bromofluorobenzene	75	51 - 142
Dibromofluoromethane	82	68 - 132
Toluene-d8 (Surr)	85	63 - 127

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Lab Control Sample - Batch: 220-31897

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-31897/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/01/2009 1212
Date Prepared: 10/01/2009 1212

Analysis Batch: 220-31897
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L7936.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	20.0	22.7	114	41 - 150	
Benzene	20.0	20.8	104	66 - 131	
Bromodichloromethane	20.0	18.2	91	78 - 120	
Bromoform	20.0	18.7	93	66 - 120	
Bromomethane	20.0	17.6	88	47 - 150	
Methyl Ethyl Ketone	20.0	20.6	103	42 - 150	
Carbon disulfide	20.0	24.3	121	55 - 150	
Carbon tetrachloride	20.0	19.0	95	69 - 135	
Chlorobenzene	20.0	19.2	96	68 - 120	
Chloroethane	20.0	21.3	107	49 - 150	
Chloroform	20.0	19.7	98	77 - 126	
Chloromethane	20.0	26.0	130	33 - 150	
Dibromochloromethane	20.0	18.2	91	75 - 120	
1,1-Dichloroethane	20.0	19.3	96	75 - 130	
1,2-Dichloroethane	20.0	18.9	94	73 - 127	
1,1-Dichloroethene	20.0	22.1	110	65 - 142	
1,2-Dichloropropane	20.0	19.3	96	69 - 129	
cis-1,3-Dichloropropene	20.0	18.9	95	63 - 120	
trans-1,3-Dichloropropene	20.0	18.2	91	73 - 120	
Ethylbenzene	20.0	17.8	89	62 - 120	
2-Hexanone	20.0	17.0	85	46 - 150	
Methylene Chloride	20.0	22.2	111	56 - 138	
methyl isobutyl ketone	20.0	22.1	111	70 - 122	
Styrene	20.0	17.6	88	47 - 120	
1,1,2,2-Tetrachloroethane	20.0	19.7	98	75 - 124	
Tetrachloroethene	20.0	19.7	98	50 - 120	
Toluene	20.0	19.8	99	66 - 120	
1,1,1-Trichloroethane	20.0	19.4	97	73 - 135	
1,1,2-Trichloroethane	20.0	19.9	100	76 - 125	
Trichloroethene	20.0	19.0	95	60 - 122	
Vinyl chloride	20.0	24.0	120	61 - 150	
Xylenes, Total	60.0	54.7	91	58 - 120	
cis-1,2-Dichloroethene	20.0	21.0	105	65 - 120	
trans-1,2-Dichloroethene	20.0	21.7	108	58 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	85	65 - 136
4-Bromofluorobenzene	83	51 - 142
Dibromofluoromethane	86	68 - 132
Toluene-d8 (Surr)	87	63 - 127

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 220-31897

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	220-10211-B-14 MS	Analysis Batch: 220-31897	Instrument ID: HP 5890/5971 GC/MS
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: L7938.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	10/01/2009 1259		Final Weight/Volume: 5 mL
Date Prepared:	10/01/2009 1259		

MSD Lab Sample ID:	220-10211-A-14 MSD	Analysis Batch: 220-31897	Instrument ID: HP 5890/5971 GC/MS
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: L7939.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	10/01/2009 1323		Final Weight/Volume: 5 mL
Date Prepared:	10/01/2009 1323		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acetone	99	99	41 - 150	0	20		
Benzene	115	112	66 - 131	3	20		
Bromodichloromethane	106	103	78 - 120	2	20		
Bromoform	99	97	66 - 120	2	20		
Bromomethane	111	95	47 - 150	16	20		
Methyl Ethyl Ketone	101	96	42 - 150	6	20		
Carbon disulfide	120	116	55 - 150	3	20		
Carbon tetrachloride	113	112	69 - 135	0	20		
Chlorobenzene	107	105	68 - 120	1	20		
Chloroethane	74	71	49 - 150	2	20		
Chloroform	110	107	77 - 126	3	20		
Chloromethane	128	115	33 - 150	11	20		
Dibromochloromethane	105	101	75 - 120	4	20		
1,1-Dichloroethane	106	102	75 - 130	2	20		
1,2-Dichloroethane	104	98	73 - 127	5	20		
1,1-Dichloroethene	121	119	65 - 142	1	20		
1,2-Dichloropropane	110	109	69 - 129	1	20		
cis-1,3-Dichloropropene	108	107	63 - 120	1	20		
trans-1,3-Dichloropropene	105	103	73 - 120	2	20		
Ethylbenzene	110	103	62 - 120	6	20		
2-Hexanone	99	96	46 - 150	3	20		
Methylene Chloride	100	94	56 - 138	6	20		
methyl isobutyl ketone	106	106	70 - 122	0	20		
Styrene	104	104	47 - 120	0	20		
1,1,2,2-Tetrachloroethane	103	91	75 - 124	13	20		
Tetrachloroethene	111	107	50 - 120	3	20		
Toluene	114	111	66 - 120	3	20		
1,1,1-Trichloroethane	114	112	73 - 135	2	20		
1,1,2-Trichloroethane	106	103	76 - 125	3	20		
Trichloroethene	116	112	60 - 122	3	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 220-31897

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	220-10211-B-14 MS	Analysis Batch: 220-31897	Instrument ID: HP 5890/5971 GC/MS
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: L7938.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	10/01/2009 1259		Final Weight/Volume: 5 mL
Date Prepared:	10/01/2009 1259		

MSD Lab Sample ID:	220-10211-A-14 MSD	Analysis Batch: 220-31897	Instrument ID: HP 5890/5971 GC/MS
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: L7939.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	10/01/2009 1323		Final Weight/Volume: 5 mL
Date Prepared:	10/01/2009 1323		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Vinyl chloride	124	113	61 - 150	9	20		
Xylenes, Total	105	105	58 - 120	1	20		
cis-1,2-Dichloroethene	118	117	65 - 120	1	20		
trans-1,2-Dichloroethene	119	115	58 - 120	3	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	82	80	65 - 136
4-Bromofluorobenzene	86	75	51 - 142
Dibromofluoromethane	86	85	68 - 132
Toluene-d8 (Surr)	89	88	63 - 127

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 220-31897

Method: 8260B
Preparation: 5030B

MS Lab Sample ID: 220-10211-B-14 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/01/2009 1259
Date Prepared: 10/01/2009 1259

Units: ug/L

MSD Lab Sample ID: 220-10211-A-14 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/01/2009 1323
Date Prepared: 10/01/2009 1323

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Acetone	10	U	50.0	50.0	49.5	49.6
Benzene	1.1	J	50.0	50.0	58.8	57.1
Bromodichloromethane	5.0	U	50.0	50.0	52.8	51.6
Bromoform	5.0	U	50.0	50.0	49.6	48.6
Bromomethane	5.0	U	50.0	50.0	55.4	47.4
Methyl Ethyl Ketone	10	U	50.0	50.0	50.6	47.8
Carbon disulfide	5.0	U	50.0	50.0	59.8	58.0
Carbon tetrachloride	5.0	U	50.0	50.0	56.4	56.2
Chlorobenzene	11		50.0	50.0	63.9	63.2
Chloroethane	72		50.0	50.0	109	107
Chloroform	5.0	U	50.0	50.0	55.1	53.3
Chloromethane	5.0	U	50.0	50.0	64.0	57.3
Dibromochloromethane	5.0	U	50.0	50.0	52.7	50.5
1,1-Dichloroethane	56		50.0	50.0	109	107
1,2-Dichloroethane	5.0	U	50.0	50.0	51.8	49.2
1,1-Dichloroethene	5.0	U	50.0	50.0	60.3	59.5
1,2-Dichloropropane	5.0	U	50.0	50.0	54.9	54.4
cis-1,3-Dichloropropene	5.0	U	50.0	50.0	54.1	53.5
trans-1,3-Dichloropropene	5.0	U	50.0	50.0	52.3	51.5
Ethylbenzene	5.0	U	50.0	50.0	54.8	51.6
2-Hexanone	10	U	50.0	50.0	49.5	48.0
Methylene Chloride	1.2	J	50.0	50.0	51.3	48.2
methyl isobutyl ketone	10	U	50.0	50.0	53.0	53.0
Styrene	5.0	U	50.0	50.0	52.1	51.8
1,1,2,2-Tetrachloroethane	5.0	U	50.0	50.0	51.7	45.4
Tetrachloroethene	5.0	U	50.0	50.0	55.5	53.7
Toluene	0.96	J	50.0	50.0	58.0	56.5
1,1,1-Trichloroethane	5.0	U	50.0	50.0	57.2	55.8
1,1,2-Trichloroethane	5.0	U	50.0	50.0	52.8	51.3
Trichloroethene	5.0	U	50.0	50.0	57.8	56.1
Vinyl chloride	5.0	U	50.0	50.0	61.9	56.4
Xylenes, Total	5.0	U	150	150	158	157
cis-1,2-Dichloroethene	1.3	J	50.0	50.0	60.1	59.6
trans-1,2-Dichloroethene	5.0	U	50.0	50.0	59.3	57.7

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Method Blank - Batch: 220-31903

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 220-31903/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/02/2009 1138
Date Prepared: 10/02/2009 1138

Analysis Batch: 220-31903
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L7976.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Acetone	10	U	1.0	10
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	2.89	J	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	86	65 - 136
4-Bromofluorobenzene	82	51 - 142
Dibromofluoromethane	91	68 - 132
Toluene-d8 (Surr)	88	63 - 127

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Lab Control Sample - Batch: 220-31903

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 220-31903/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/02/2009 1027
Date Prepared: 10/02/2009 1027

Analysis Batch: 220-31903
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890/5971 GC/MS
Lab File ID: L7973.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	20.0	26.7	134	41 - 150	
Benzene	20.0	21.6	108	66 - 131	
Bromodichloromethane	20.0	20.0	100	78 - 120	
Bromoform	20.0	19.8	99	66 - 120	
Bromomethane	20.0	18.1	91	47 - 150	
Methyl Ethyl Ketone	20.0	23.2	116	42 - 150	
Carbon disulfide	20.0	26.7	134	55 - 150	
Carbon tetrachloride	20.0	21.3	107	69 - 135	
Chlorobenzene	20.0	20.0	100	68 - 120	
Chloroethane	20.0	22.4	112	49 - 150	
Chloroform	20.0	21.8	109	77 - 126	
Chloromethane	20.0	27.6	138	33 - 150	
Dibromochloromethane	20.0	18.6	93	75 - 120	
1,1-Dichloroethane	20.0	20.8	104	75 - 130	
1,2-Dichloroethane	20.0	19.5	97	73 - 127	
1,1-Dichloroethene	20.0	24.2	121	65 - 142	
1,2-Dichloropropane	20.0	21.3	106	69 - 129	
cis-1,3-Dichloropropene	20.0	21.0	105	63 - 120	
trans-1,3-Dichloropropene	20.0	19.4	97	73 - 120	
Ethylbenzene	20.0	21.0	105	62 - 120	
2-Hexanone	20.0	19.6	98	46 - 150	
Methylene Chloride	20.0	21.8	109	56 - 138	
methyl isobutyl ketone	20.0	22.3	111	70 - 122	
Styrene	20.0	19.2	96	47 - 120	
1,1,2,2-Tetrachloroethane	20.0	20.0	100	75 - 124	
Tetrachloroethene	20.0	20.8	104	50 - 120	
Toluene	20.0	22.7	114	66 - 120	
1,1,1-Trichloroethane	20.0	21.5	107	73 - 135	
1,1,2-Trichloroethane	20.0	20.0	100	76 - 125	
Trichloroethene	20.0	21.1	105	60 - 122	
Vinyl chloride	20.0	24.7	124	61 - 150	
Xylenes, Total	60.0	61.4	102	58 - 120	
cis-1,2-Dichloroethene	20.0	21.7	108	65 - 120	
trans-1,2-Dichloroethene	20.0	22.2	111	58 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	87	65 - 136
4-Bromofluorobenzene	91	51 - 142
Dibromofluoromethane	91	68 - 132
Toluene-d8 (Surr)	95	63 - 127

Calculations are performed before rounding to avoid round-off errors in calculated results.

DATA REPORTING QUALIFIERS

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	B	The analyte was found in an associated blank, as well as in the sample.

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
Sdg Number: 220-10223

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:220-31897					
LCS 220-31897/3	Lab Control Sample	T	Water	8260B	
MB 220-31897/2	Method Blank	T	Water	8260B	
220-10211-B-14 MS	Matrix Spike	T	Water	8260B	
220-10211-A-14 MSD	Matrix Spike Duplicate	T	Water	8260B	
220-10223-2	Well 1-1A EFF	T	Water	8260B	
220-10223-3TB	TRIP BLANK	T	Water	8260B	
Analysis Batch:220-31903					
LCS 220-31903/2	Lab Control Sample	T	Water	8260B	
MB 220-31903/3	Method Blank	T	Water	8260B	
220-10223-1	Well 1-1A INF	T	Water	8260B	

Report Basis
T = Total

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
SDG: 220-10223

Laboratory Chronicle

Lab ID: 220-10223-1 **Client ID: Well 1-1A INF**

Sample Date/Time: 09/24/2009 09:25 Received Date/Time: 09/25/2009 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-10223-A-1		220-31903		10/02/2009 12:26	2	TAL CT	BK
A:8260B	220-10223-A-1		220-31903		10/02/2009 12:26	2	TAL CT	BK

Lab ID: 220-10223-2 **Client ID: Well 1-1A EFF**

Sample Date/Time: 09/24/2009 09:30 Received Date/Time: 09/25/2009 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-10223-B-2		220-31897		10/01/2009 18:30	1	TAL CT	BK
A:8260B	220-10223-B-2		220-31897		10/01/2009 18:30	1	TAL CT	BK

Lab ID: 220-10223-3 **Client ID: TRIP BLANK**

Sample Date/Time: 09/24/2009 00:00 Received Date/Time: 09/25/2009 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-10223-B-3		220-31897		10/01/2009 18:54	1	TAL CT	BK
A:8260B	220-10223-B-3		220-31897		10/01/2009 18:54	1	TAL CT	BK

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 220-31897/2		220-31897		10/01/2009 11:48	1	TAL CT	BK
A:8260B	MB 220-31897/2		220-31897		10/01/2009 11:48	1	TAL CT	BK
P:5030B	MB 220-31903/3		220-31903		10/02/2009 11:38	1	TAL CT	BK
A:8260B	MB 220-31903/3		220-31903		10/02/2009 11:38	1	TAL CT	BK

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 220-31897/3		220-31897		10/01/2009 12:12	1	TAL CT	BK
A:8260B	LCS 220-31897/3		220-31897		10/01/2009 12:12	1	TAL CT	BK
P:5030B	LCS 220-31903/2		220-31903		10/02/2009 10:27	1	TAL CT	BK
A:8260B	LCS 220-31903/2		220-31903		10/02/2009 10:27	1	TAL CT	BK

Client: Malcolm Pirnie, Inc.

Job Number: 220-10223-1
SDG: 220-10223

Laboratory Chronicle

Lab ID: MS **Client ID: N/A**

Sample Date/Time: N/A 09/23/2009 12:02 Received Date/Time: N/A 09/25/2009 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-10211-B-14 MS		220-31897		10/01/2009 12:59	1	TAL CT	BK
A:8260B	220-10211-B-14 MS		220-31897		10/01/2009 12:59	1	TAL CT	BK

Lab ID: MSD **Client ID: N/A**

Sample Date/Time: N/A 09/23/2009 12:02 Received Date/Time: N/A 09/25/2009 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	220-10211-A-14 MSD		220-31897		10/01/2009 13:23	1	TAL CT	BK
A:8260B	220-10211-A-14 MSD		220-31897		10/01/2009 13:23	1	TAL CT	BK

Lab References:
TAL CT = TestAmerica Connecticut