

**Quarterly Monitoring Report  
Fourth Quarter 2002  
Utility Manufacturing Company  
700 Main Street  
Westbury, New York  
02103**

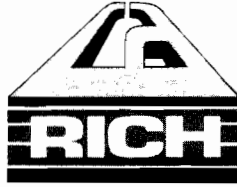
**February 2003**

**Prepared for:**

**Utility Manufacturing Company  
700 Main Street  
Westbury, New York 11590**

**Prepared by:**

**CA RICH CONSULTANTS, INC.  
17 Dupont Street  
Plainview, New York 11803**



**CA RICH CONSULTANTS, INC.**

CERTIFIED GROUND-WATER AND  
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February 13, 2003

**NYSDEC**

50 Wolf Road  
Albany, New York 12233-7010

Attention: Jeffrey Dyber, P.E.

Re: **Quarterly Monitoring Report  
Fourth Quarter 2002  
Utility Manufacturing Company  
700 Main Street  
Westbury, New York**

Dear Mr. Dyber:

Attached is our Quarterly Monitoring Report for the above-referenced site. In accordance with the IRM Work Plan, we have achieved the termination criteria in both the soil vapor and air sparging systems. As such, the remediation system has remained off since the December 2002 sampling round.

A separate Post-Remediation Monitoring Plan will be forwarded to the Department. If there are any questions regarding this Report, please do not hesitate to call our office.

Sincerely,

**CA RICH CONSULTANTS, INC.**

Linda Ross  
Project Geologist

Eric A. Weinstock  
Associate

cc: Audie Kranz  
Miriam Villani, Esq.  
Alali Tamuno, Esq.  
Jacqueline Neelson

Attachments

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**Fourth Quarter 2002  
Quarterly Monitoring Report  
Utility Manufacturing Company  
700 Main Street  
Westbury, New York  
Site Number: 130043H**

**1.0 INTRODUCTION**

The following Quarterly Monitoring Report was prepared by CA RICH Consultants, Inc. (CA RICH) on behalf of the Utility Manufacturing Company (Utility). This document was prepared in accordance with an Order on Consent, Index Number W1-0795-97-06. For the purposes of this document, the contaminants of concern are perchloroethene (a.k.a. PCE or tetrachloroethene); trichloroethene (TCE); 1,1,1-trichloroethane (TCA) and their degradation products.

The report addresses the remediation of an area of the Upper Glacial Aquifer located in the southwest portion of the property. The estimated thickness of the Upper Glacial Formation at this location is 100 feet and the depth to the water table is approximately 55 feet.

A series of previous investigations were performed at this Site by both the NYSDEC and Utility. A detailed summary of these previous investigations is described in the Remedial Investigation prepared for this Site. The following is a partial list of these previous investigations.

<u>Investigation</u>	<u>Date</u>
NYS Superfund Contract, Site Investigation Report New Cassel Industrial Area (Ref. 1)	February 1995
NYS Superfund Contract, MultiSite PSA Report New Cassel Industrial Area (Ref. 2)	March 1996
NYS Superfund Contract, MultiSite PSA Report New Cassel Industrial Area (Ref. 3)	March 1997
Focused Remedial Investigation, Utility Manufacturing/ Wonder King, Anson Environmental, Ltd. (Ref. 4)	January 1999
On-Site Groundwater Investigation, Utility Manufacturing/ Wonder King, Anson Environmental, Ltd. (Ref. 5)	December 2000
Interim Remedial Measures Report , Utility Manufacturing Company, 700 Main Street, Westbury, New York (Ref. 6)	December 2001

## **2.0 PHYSICAL SITE CHARACTERISTICS**

### **2.1 Site History**

The Utility Manufacturing / Wonder King Site consists of a parcel approximately one acre in size. The property contains one building that was constructed in 1967. The ground surface around three sides of the building is improved with pavement. A narrow unpaved area exists on the west side of the building. A Site Plan is included as Figure 1.

Utility is a chemical blending and packaging plant that has operated at this facility since 1976. The company distributes a variety of cleaning and lubricating products for commercial and industrial customers. The building is constructed with a concrete slab on grade and there are no known floor drains within the structure. Raw materials are stored in above ground tanks within the facility that are registered and inspected periodically. There are also two 4,000-gallon underground storage tanks below the rear of the property that store tetrahydrofuran and acetone.

The services of Safety Kleen are used to provide mineral spirits for use in cleaning silk screens in the plant. Safety Kleen disposes of the used mineral spirits and provides the plant with new product on a contract basis. This is the only chemical waste generated at this Facility.

### **2.2 Geologic Setting**

Utility is situated upon the glacial outwash soil deposits of Long Island at an elevation of approximately 120 feet above mean sea level. The Upper Glacial Formation at this Site includes a layer of clay that occurs at a depth of approximately 38 to 40 feet below grade in the rear of the parking lot. The configuration of this "40-foot" clay layer based on References 4 and 5 is included in the IRM Work Plan (Ref. 6). Based upon field measurements from the five wells installed during the Remedial Investigation, the regional direction of shallow groundwater flow is to the southwest. The depth of the water table occurring within the underlying Upper Glacial Formation is approximately 55 feet below land surface.

The Upper Glacial Formation is underlain at a depth of approximately 100 feet by the Magothy Formation, the principal water supply aquifer for most of Nassau County. The Magothy Formation is, in turn, underlain by the Raritan Formation. The Raritan Formation is composed of the upper Raritan Clay, a regional confining layer, followed by the more permeable Lloyd Sand. The Lloyd Sand sits directly upon crystalline bedrock.

### **2.3 Evaluation of Previous Groundwater Sample Analyses**

Based on the Remedial Investigation (RI), Site wells MW- 1, 2 and 3 are located along the upgradient property boundary of the facility and monitor the quality of the groundwater entering the property. Well MW-4 is installed to monitor perched groundwater that collects on the surface of the "40-foot" clay layer discussed earlier. Well MW-5 is a water table well that monitors the area with the highest levels of VOCs identified at the Site. The location of these wells are illustrated on Figure 1. A summary of the May, 1998 RI results for PCE, TCE and TCA are tabulated below:

Compound (in ppb)	Well Numbers				
	MW-1	MW-2	MW-3	MW-4	MW-5
PCE	12.2	148	142	118	876
TCE	ND	ND	11.4	52.1	69.6
TCA	ND	ND	ND	ND	24.4

**3.0 GROUNDWATER MONITORING PROCEDURES**

During the course of work at this Site, numerous wells were installed at different points in time. For the purposes of this Report, the groundwater analytical results from the November 2001 IRM will serve as a starting point with regard to plotting the data versus time. As part of the IRM, a series of compliance wells were designated. The network of monitoring wells consists of the following:

• MW-1	• MW-6
• MW-2	• MDCW-7S
• MW-3	• MDCW-7I
• MW-4	• MDCW-7D
• MW-5R	

A map illustrating the locations of these wells is presented on Figure 1. On November 13, 2001 CA RICH returned to these compliance wells and collected a final round of pre-start up samples to serve as a base line for the remediation system.

CA RICH performed the fourth quarter 2002 round of groundwater sampling on December 19, 2002. Three casing volumes of groundwater were purged from each of these wells using a Groundfos™ groundwater sampling pump. Two 40 mil vials were then filled directly from the pump discharge and placed in a cooler with ice packs. The purge water was containerized. All samples were transported under chain-of-custody documentation by an overnight courier to Chemtech Laboratories in New Jersey.

The results of the sampling program are presented on a well-by-well basis on Tables 1 through 9. In addition to the tabular presentation, plots for the concentration of tetrachloroethene verses time are also included.

As shown on the data plots, the air sparging system has resulted in a significant improvement in the quality of the groundwater below this Site since the operation of the equipment was initiated. The concentration of tetrachloroethene in the Site wells decreased to 13 ug/l or less in all of the wells during the past quarter. It should be noted that the 13 ug/l was detected in upgradient well MW-3. The next highest concentration was 8.6 ug/l in well MW-4.

The multi-depth cluster well (MDCW-7) is located along the southwestern property line. The shallow well at this location, MDCW-7S, decreased in tetrachloroethene concentration from 31 ug/l to 3.3 ug/l. The intermediate depth well (well MDCW-7I) once again showed non detect for tetrachloroethene (less than 1 ug/l). The tetrachloroethene reading for well MDCW-7D remained non detect. Well MW-2 was dry due to a regional lowering of the water table. The replacement well for MW-5 (Well MW-5R) was installed on September 11, 2002 and also displayed no detection for tetrachloroethene (less than 1 ug/l). All the on-site wells, MW-4, 5R, 6, 7s, 7i and 7d contained tetrachloroethene at levels less than the 13 ug/l concentration detected in upgradient well MW-3.

#### **4.0 SOIL VAPOR MONITORING PROCEDURES**

On December 19, 2002, one soil vapor sample was collected from the SVE blower discharge using a SKC™ 0.1 to 1.0 liter per minute field rotameter and two SKC Anasorb CSC sorbent tubes connected in series. The sampling equipment was connected to a sample port located between the blower discharge and the first carbon unit. In addition to the sorbent tube samples, field readings were also measured using an HNU meter with a 10.2 ev bulb.

Results of the soil vapor sampling program are summarized on Table 10. In addition, plots of the sorbent tube laboratory results and the HNU readings verses days in operation are included. The initial sample collected during the November 15, 2001 pilot test contained 97,000 ug/m<sup>3</sup> of total VOCs – 53,000 ug/m<sup>3</sup> of which were tetrachloroethene. These concentrations decreased steadily during the first quarter of operation, to a VOC total of 5,400 ug/m<sup>3</sup> and 4,100 ug/m<sup>3</sup> of tetrachloroethene. During the fourth quarter of operation, the concentrations decreased to a VOC total of 900 ug/m<sup>3</sup> with no detection of tetrachloroethene.

#### **5.0 REMEDIATION SYSTEM EQUIPMENT TERMINATION CRITERIA**

The following monitoring schedule has been developed in our IRM Work Plan for the operation of the SVE unit and the AS system. Evaluation of historical plots of the data generated during the operation of this equipment will be used to determine when it is appropriate to shut off the remediation equipment.

##### **5.1 SVE Unit Monitoring and Termination Criteria**

Once the SVE equipment was installed and was ready to be placed into operation, an initial “base line” soil vapor sample of the untreated vapor stream between the exhaust side of the blower and the inlet side of the carbon canisters was collected on November 15, 2001 using absorbent tubes. The sample tubes were sent to an ELAP-approved laboratory for analysis of halogenated volatile organics including PCE, TCE & TCA and their degradation products using GC methodologies. In addition, a 10.2ev HNU™ was also used to screen the amount of VOCs in the untreated vapor stream. Complete laboratory results are attached.

Total VOC measurements using a Photo Ionization Detector (PID) and sorbent tube samples are currently being collected on a quarterly frequency. As the operation of the SVE unit progresses, the PID and sorbent tube data will be plotted versus time of operation on a graph. Once the levels of total VOCs in the SVE wells decreases to a near constant or asymptotic concentration, operation of the system will be suspended. Graphs of the concentration of total VOCs versus time will be compiled after each round of quarterly monitoring.



The SVE also serves to capture off-gassing contaminants from the AS system. Therefore, regardless of the criteria described above, the SVE system will remain in operation as long as the AS system described in the next section is in operation.

As of the date of this Report, the SVE system has achieved the termination criteria.

## **5.2 AS System Monitoring and Termination Criteria**

The on-Site multi-depth well cluster (MW-7s, i & d), and well MW-5 will serve as compliance points for the operation of this remediation system. Wells MW-1 & 3 will serve as up-gradient monitoring points. Prior to start up of the AS system, "base line" samples were collected from these compliance wells.

The samples from upgradient monitoring wells MW-1 & 3 serve to determine the quality of ground water entering the property from upgradient areas. Once placed in full operation, the compliance wells will be sampled on a quarterly basis and analyzed for halogenated volatile organics using EPA method 8010 or 8021. Graphs of the concentration of PCE versus time will be compiled after each round of quarterly monitoring. The system will be kept in operation until the concentration of PCE, TCE, TCA and their degradation products meets the following criteria.

The AS/SVE system will remain in operation until the groundwater samples from the compliance wells indicate that: 1) they meet the Standards, Criteria and Guidance (SCGs) for PCE, TCE, TCA and their degradation products; 2) the data shows that PCE, TCE, TCA and their degradation products have reached an asymptotic condition and the system is no longer effectively removing the contaminants of concern; or, 3) the concentration of PCE, TCE, TCA and their degradation products in the downgradient compliance wells is equal to or less than the concentrations in the up-gradient monitoring wells.

According to Tables 1 through 9, the concentration of PCE, TCE, TCA and their degradation products appear to have reached an asymptotic condition. In addition, the concentration of PCE in the on-site compliance wells is less than the concentrations in the upgradient monitoring well, MW-3. As such, the Termination Criteria for the AS system has been achieved and the system has remained off since the December 2002 sampling round.

## **6.0 CONCLUSION**

The AS/SVE system remained in "pulsed" operation throughout the fourth quarter of 2002 with no down time. The concentration of tetrachloroethene in all of the Site wells ranged from a high of 13 ug/l in upgradient well MW-3 to no detection. As outlined in the IRM Work Plan, the termination criteria for this Site have been achieved. The system will remain off and a Post-Remediation Monitoring Plan will be prepared.

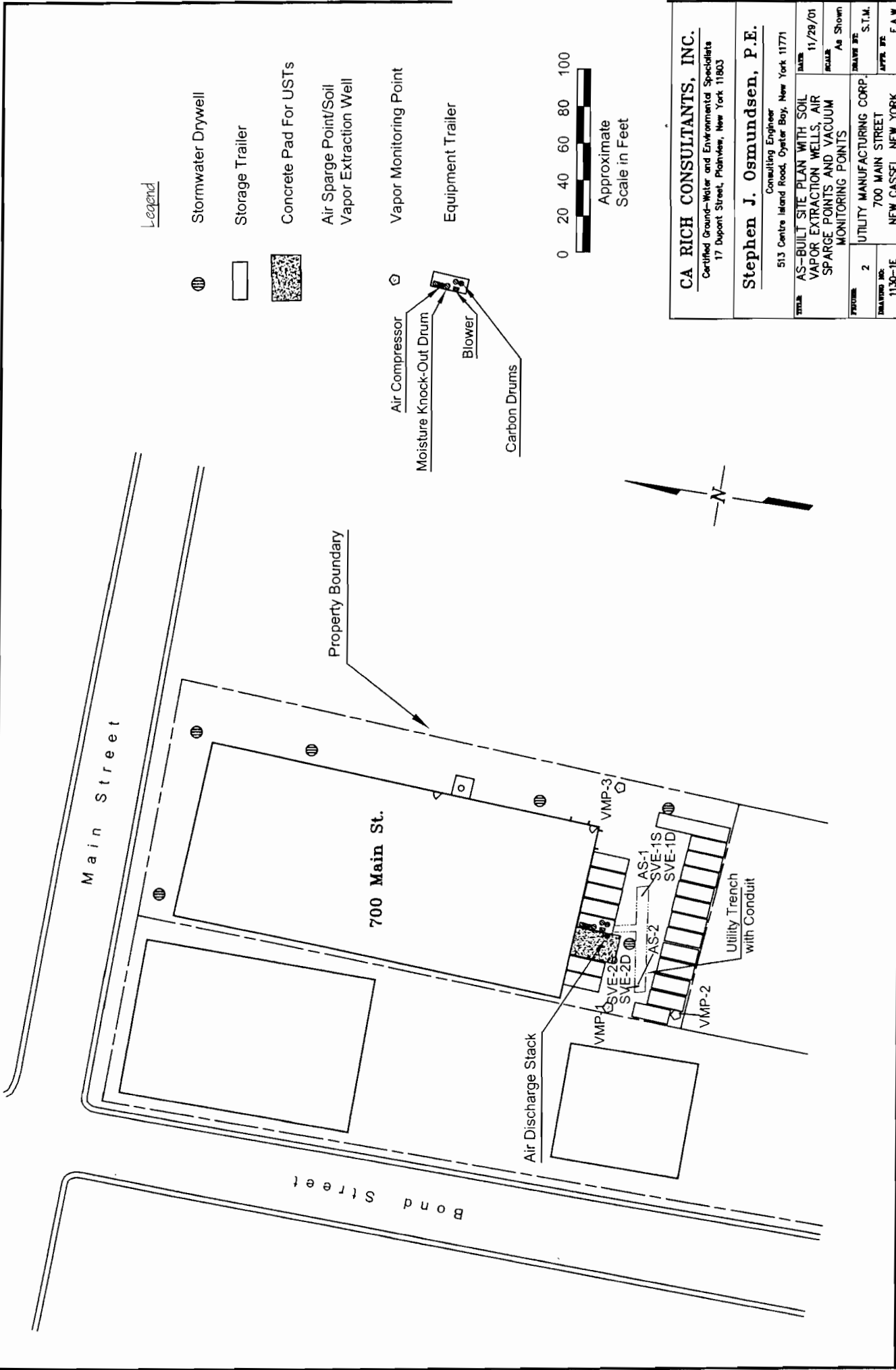
An NYSDEC, ASP Category B deliverable package was performed on the December 2002 sampling round. The data package is attached to this Report.

**7.0 REFERENCES**

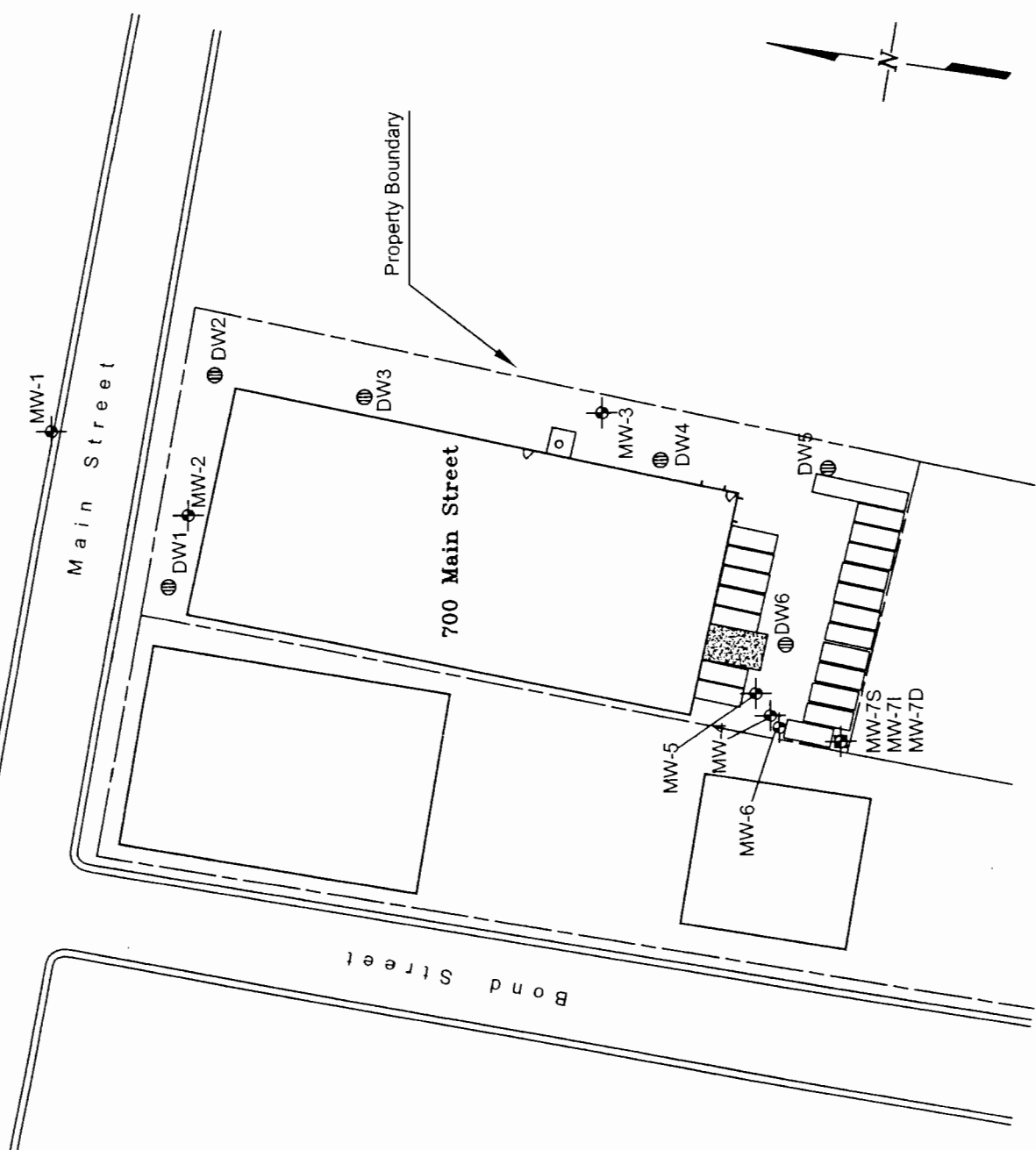
1. NYSDEC (February 1995), NYS Superfund Contract, Site Investigation Report, New Cassel Industrial Area.
2. NYSDEC, (March 1996), NYS Superfund Contract, MultiSite PSA Report, New Cassel Industrial Area.
3. NYSDEC, (March 1997), NYS Superfund Contract, MultiSite PSA Report, New Cassel Industrial Area.
4. Anson Environmental, Ltd., (January 1999), Focused Remedial Investigation, Utility Manufacturing/Wonder King,
5. Anson Environmental, Ltd , (December 2000), On-Site Groundwater Investigation, Utility Manufacturing/Wonder King.
6. CA RICH, (December 2001), Interim Remedial Measures Report, Utility Manufacturing Company, 700 Main Street, Westbury, New York

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# FIGURES

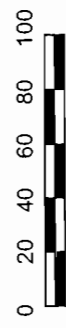


<b>CA RICH CONSULTANTS, INC.</b> Certified Ground-Water and Environmental Specialists 17 Dupont Street, Plainville, New York 11803	
<b>Stephen J. Osmundsen, P.E.</b> Consulting Engineer 513 Centre Island Road, Oyster Bay, New York 11771	
<b>TITLE</b>	AS-BUILT SITE PLAN WITH SOIL VAPOR EXTRACTION WELLS, AIR SPARGE POINTS AND VACUUM MONITORING POINTS
<b>DATE</b>	11/28/01
<b>SCALE</b>	As Shown
<b>PROJECT NO.</b>	2
<b>CLIENT</b>	UTILITY MANUFACTURING CORP.
<b>ADDRESS</b>	700 MAIN STREET NEW CASSEL, NEW YORK
<b>DATE</b>	S.T.M.
<b>BY</b>	E.A.W.



Legend

-  Drywell
-  Monitoring Well
-  Storage Trailer
-  Concrete Pad For USTs
-  Multi-Depth Cluster Well



Approximate  
Scale in Feet

**CA RICH CONSULTANTS, INC.**  
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 17 Dupont Street, Plainville, New York 11803

**Stephen J. Osmundsen, P.E.**  
 Consulting Engineer  
 513 Centre Island Road, Oyster Bay, New York 11771

<b>TITLE</b>	SITE PLAN WITH EXISTING MONITORING WELL LOCATIONS	<b>DATE</b>	11/29/01
<b>PROJECT</b>	UTILITY MANUFACTURING CORP.	<b>SCALE</b>	As Shown
<b>RELATION NO.</b>	700 MAIN STREET	<b>DRAWN BY</b>	S.T.M.
<b>1130-1A</b>	NEW CASSEL, NEW YORK	<b>APPR BY</b>	E.A.W.

# TABLES

**Table 1**  
**Summary of Analytical Detections in Well MW-1**  
**Utility Manufacturing, Westbury, NY**

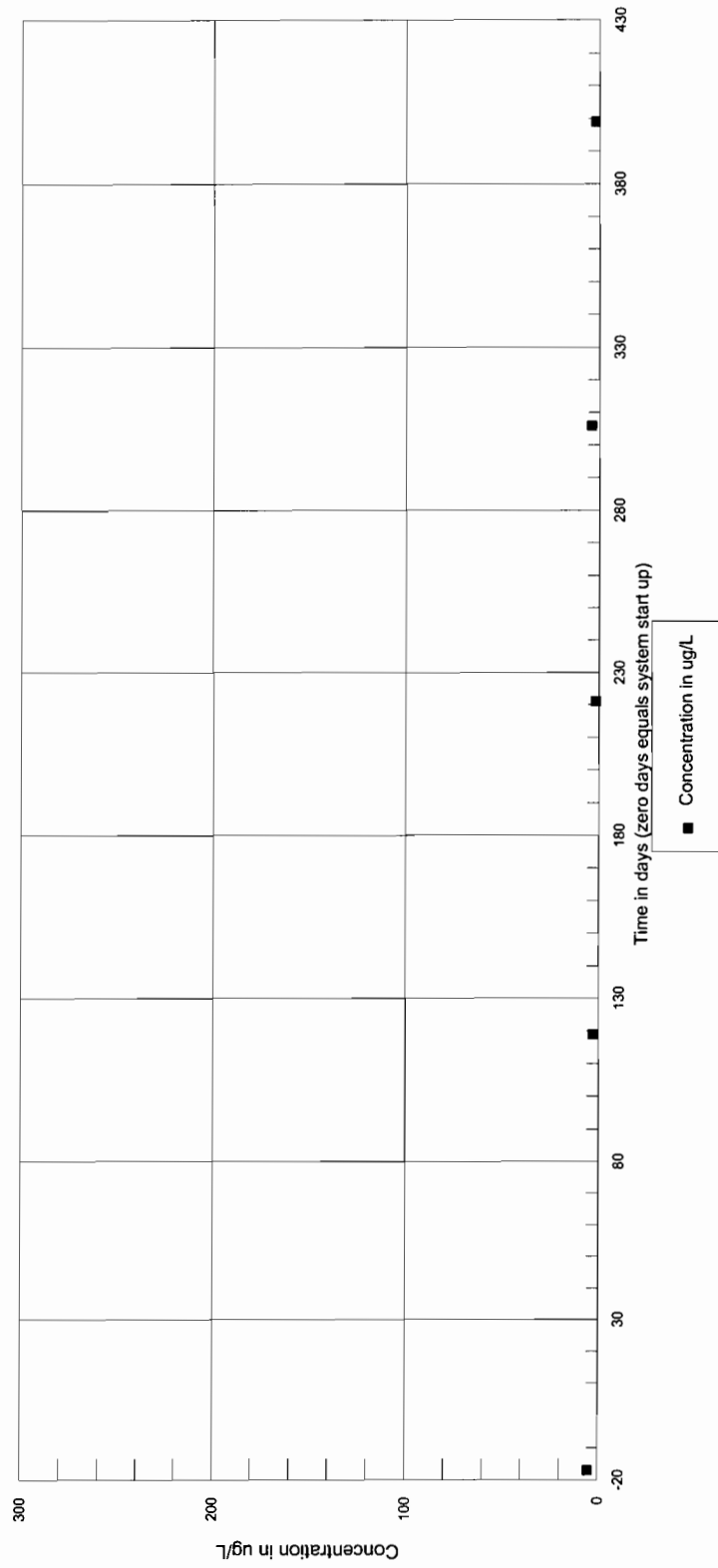
Well ID Comments/Calendar Quarter Sample depth in feet Date Sampled Days since system start up Days since initial sample	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	NYSDEC TOGS* values
	Baseline Data 55 to 60 10/29/2001 -17 0	1 Qtr 2002 55 to 60 03/14/2002 119 136	2 Qtr 2002 55 to 60 06/24/2002 221 238	3 Qtr 2002 55 to 60 09/17/2002 306 323	4 Qtr 2002 55 to 60 12/19/2002 399 416	1 Qtr 2003	2 Qtr 2003	3 Qtr 2003	4 Qtr 2003			
<b>Volatile Organics (EPA METHOD 8021) Units</b>	<b>ug/L</b>	<b>ug/L</b>	<b>ug/L</b>	<b>ug/L</b>	<b>ug/L</b>	<b>ug/L</b>	<b>ug/L</b>	<b>ug/L</b>	<b>ug/L</b>	<b>ug/L</b>	<b>ug/L</b>	<b>ug/L</b>
Tetrachloroethene	5.4	2.8	1.7	3.9	2.0							5.00
Trichloroethene	ND	ND	ND	ND	ND							5.00
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND							5.00
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND							5.00
Vinyl Chloride	ND	ND	ND	ND	ND							2.00
1,1,1 Trichloroethane	ND	ND	ND	ND	ND							5.00
1,1Dichloroethane	ND	ND	ND	ND	ND							5.00
Chloroethane	ND	ND	ND	ND	ND							5.00

Notes:  
 ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

Prepared by CA Rich Consultants Inc.

**MW-1**  
Tetrachloroethene versus time





**Table 2**  
**Summary of Analytical Detections in Well MW-2**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

Well ID	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	NYSDEC TOGS* values
Comments/Calendar Quarter	Baseline Data	1 Qtr 2002	2 Qtr 2002	3 Qtr 2002	4 Qtr 2002	1 Qtr 2003	2 Qtr 2003	3 Qtr 2003	4 Qtr 2003	1 Qtr 2003	2 Qtr 2003	3 Qtr 2003	4 Qtr 2003
Sample depth in feet	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Date Sampled	10/29/2001	03/14/2002	06/24/2002	09/17/2002	12/19/2002	06/24/2002	09/17/2002	12/19/2002	03/14/2003	06/24/2003	09/17/2003	12/19/2003	03/14/2004
Days since system start up	-17	119	221	306	399	221	306	399	119	221	306	399	119
Days since initial sample	0	136	238	323	416	238	323	416	136	238	323	416	136
Volatile Organics (EPA METHOD 8021)													
Units	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L
Tetrachloroethene	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Trichloroethene	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
cis-1,2-Dichloroethene	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
trans-1,2-Dichloroethene	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Vinyl Chloride	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
1,1,1 Trichloroethane	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
1,1Dichloroethane	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Chloroethane	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry

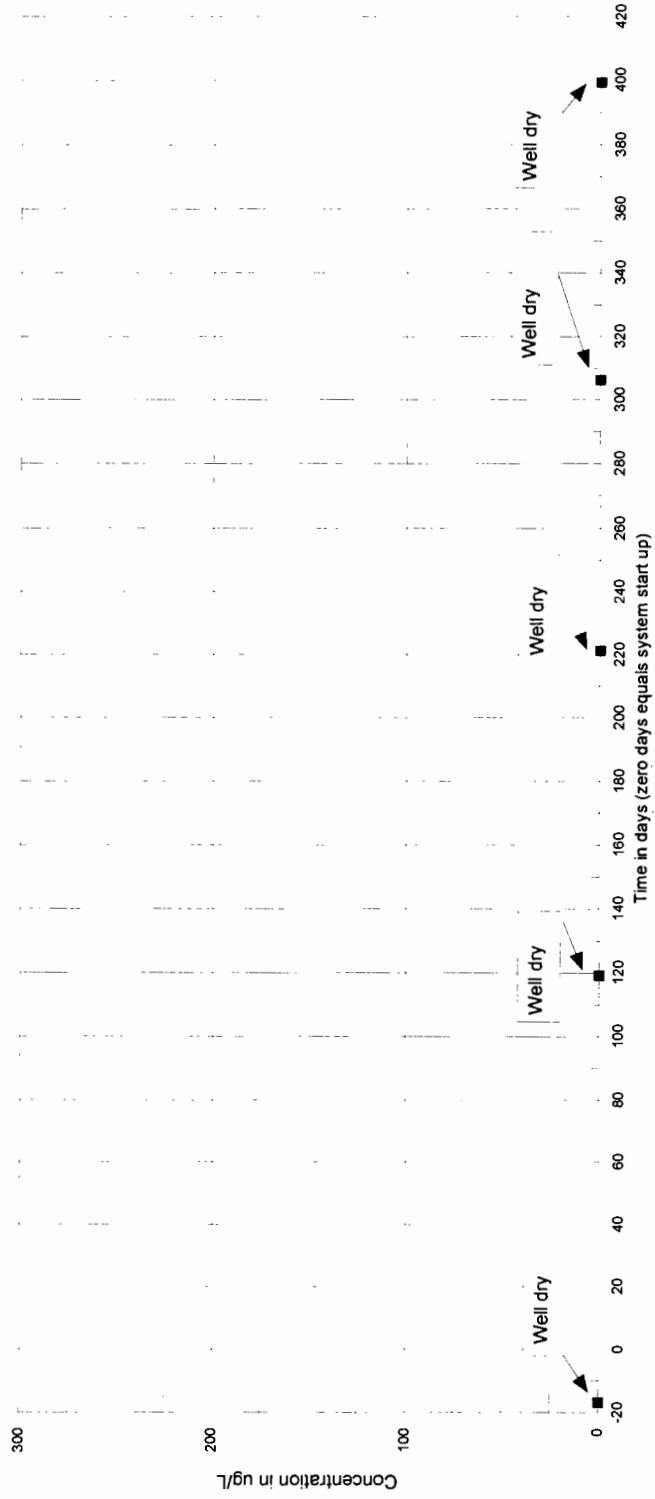
Notes:  
 ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

Prepared by CA Rich Consultants Inc.

# MW-2

Tetrachloroethene versus time



There is no data for dates when the well is dry

**Table 3**  
**Summary of Analytical Detections in Well MW-3**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

Well ID Comments/Calendar Quarter Sample depth in feet Date Sampled Days since system start up Days since initial sample	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	NYSDEC TOGS* values		
	Baseline Data 55 to 70 10/29/2001 -17 0	1 Qtr 2002 55 to 70 03/14/2002 119 136	2 Qtr 2002 55 to 70 06/24/2002 221 238	3 Qtr 2002 55 to 70 09/17/2002 306 323	4 Qtr 2002 55 to 70 12/19/2002 399 416	1 Qtr 2003	2 Qtr 2003	3 Qtr 2003	4 Qtr 2003	1 Qtr 2003	2 Qtr 2003	3 Qtr 2003	4 Qtr 2003	1 Qtr 2003	2 Qtr 2003	3 Qtr 2003	4 Qtr 2003	1 Qtr 2003	2 Qtr 2003	3 Qtr 2003	4 Qtr 2003
Volatiles Organics (EPA METHOD 8021) Units	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L	.ug/L
Tetrachloroethene	49	14	15	20	13																5.00
Trichloroethene	2.9	ND	ND	ND	ND																5.00
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND																5.00
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND																5.00
Vinyl Chloride	ND	ND	ND	ND	ND																2.00
1,1,1 Trichloroethane	3.1	ND	ND	ND	ND																5.00
1,1Dichloroethane	ND	ND	ND	ND	ND																5.00
Chloroethane	ND	ND	ND	ND	ND																5.00

**Notes:**

ND: Indicates compound analyzed but not detected at laboratory detection level.

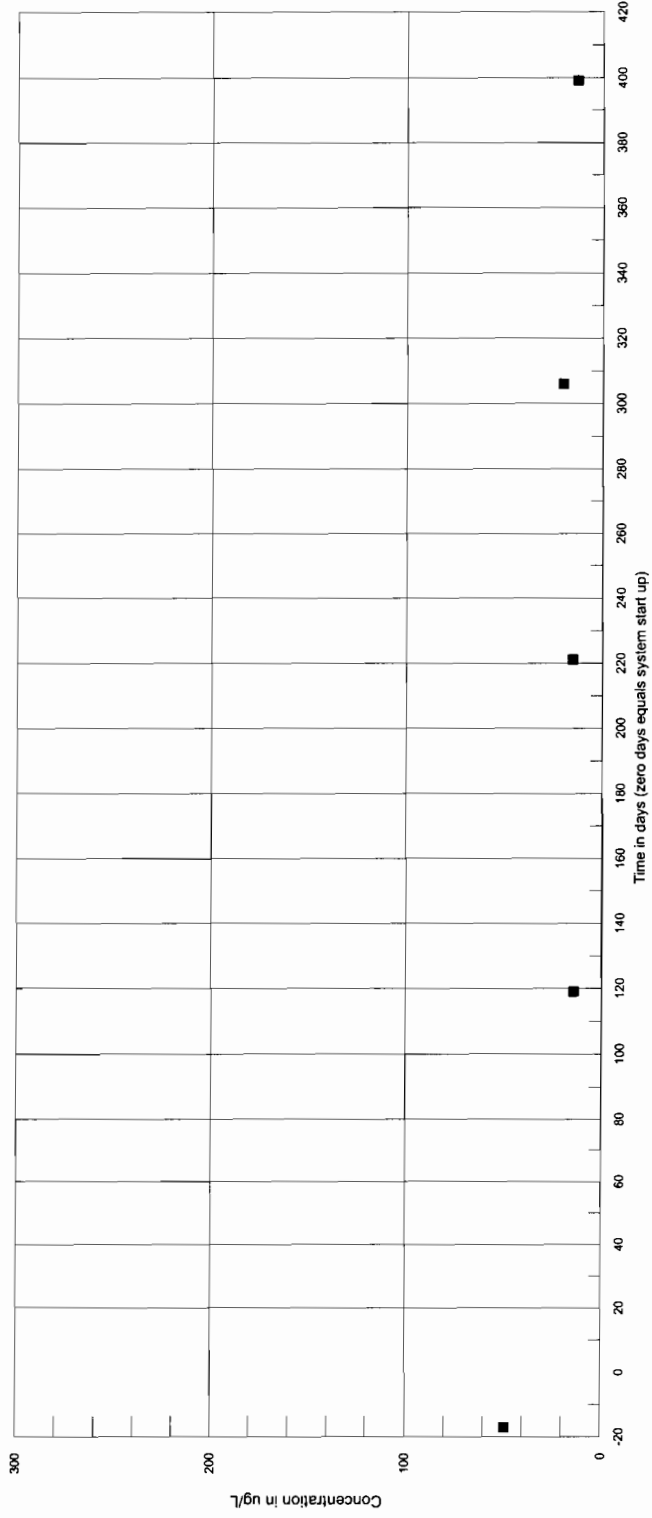
ug/L: micrograms per liter or parts per billion.

Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

Prepared by CA Rich Consultants Inc.

MW-3  
Tetrachloroethene versus time



■ Concentration in ug/L

**Table 4**  
**Summary of Analytical Detections in Well MW-4**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

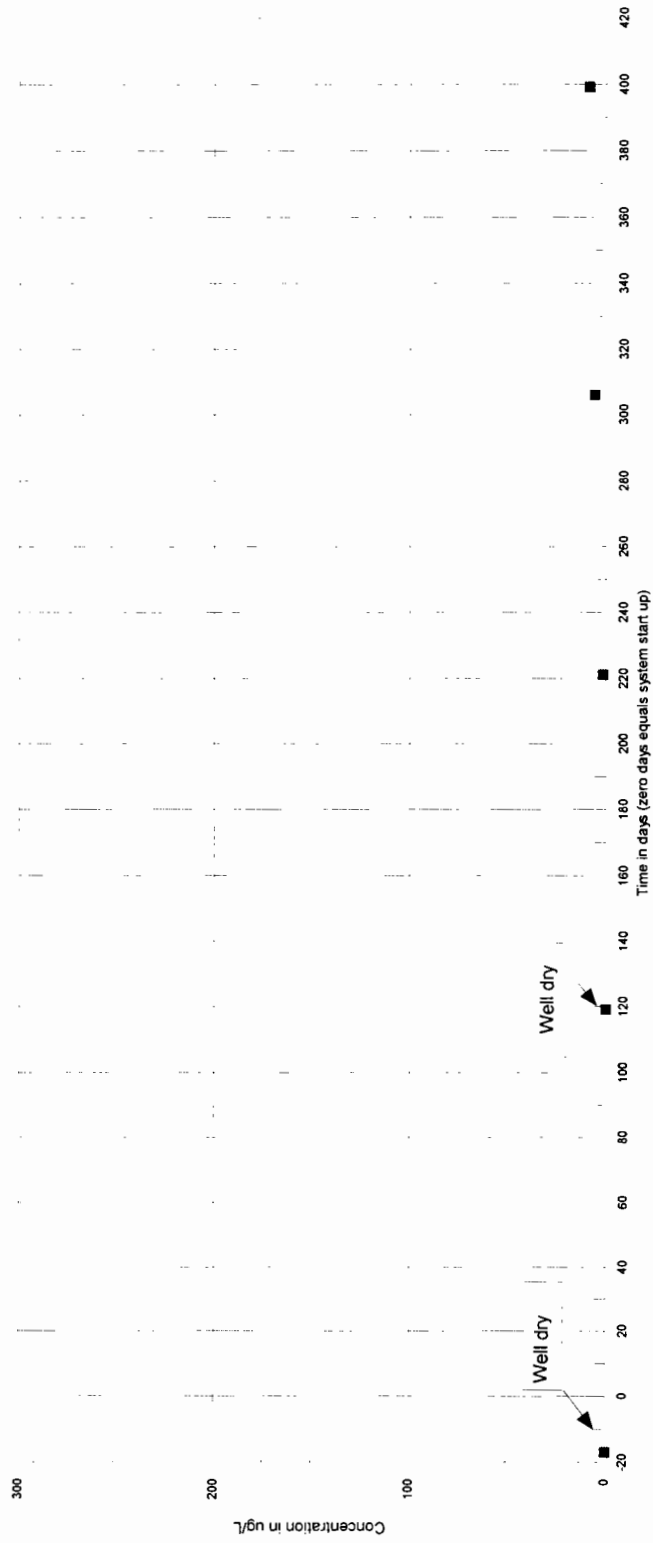
Well ID Comments/Calendar Quarter Sample depth in feet Date Sampled Days since system start up Days since initial sample	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	NYSDEC TOGS* values
	Baseline Data 10/29/2001 dry -17 0	1 Qtr 2002 dry 119 136	2 Qtr 2002 29 to 39 06/24/2002 221 238	3 Qtr 2002 29 to 39 09/17/2002 306 323	4 Qtr 2002 29 to 39 12/19/2002 399 416	1 Qtr 2003	2 Qtr 2003	3 Qtr 2003	4 Qtr 2003	ug/L	ug/L	ug/L
<b>Volatile Organics (EPA METHOD 8021) Units</b>	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Tetrachloroethene	dry	dry	1.4	5.8	8.6							5.00
Trichloroethene	dry	dry	1.4	4.6	2.8							5.00
cis-1,2-Dichloroethene	dry	dry	ND	ND	ND							5.00
trans-1,2-Dichloroethene	dry	dry	ND	ND	ND							5.00
Vinyl Chloride	dry	dry	ND	ND	ND							2.00
1,1,1 Trichloroethane	dry	dry	ND	ND	ND							5.00
1,1Dichloroethane	dry	dry	ND	ND	ND							5.00
Chloroethane	dry	dry	ND	ND	ND							5.00

Notes:  
 ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

Prepared by CA Rich Consultants Inc.

MW-4  
Tetrachloroethene versus time



There is no data for dates when the well is dry

**Table 5**  
**Summary of Analytical Detections in Well MW-5 (MW-5R)**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

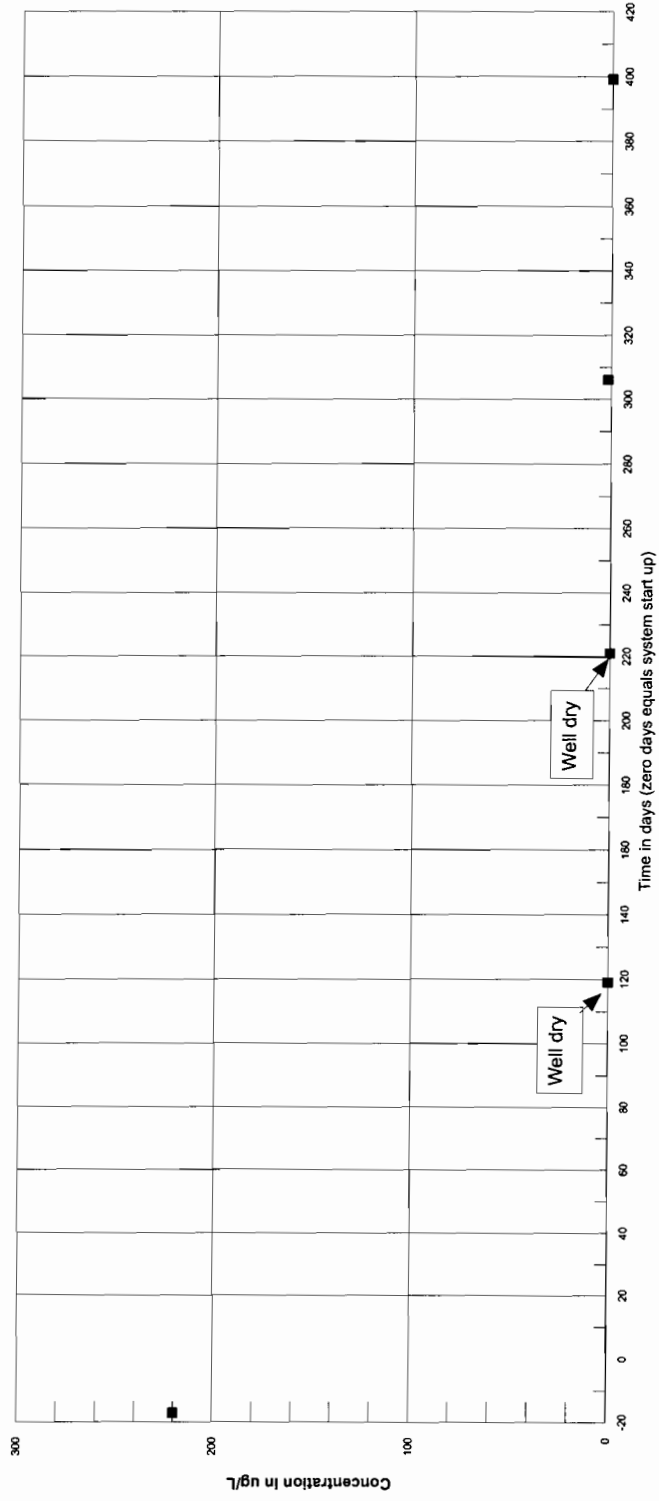
Well ID	MW-5	MW-5	MW-5	MW-5R	MW-5R	MW-5R	MW-5R	MW-5R	MW-5R	MW-5R	NYSDEC TOGS* values
Comments/Calendar Quarter	Baseline Data	1 Qtr 2002	2 Qtr 2002	3 Qtr 2002	4 Qtr 2002	1 Qtr 2003	2 Qtr 2003	3 Qtr 2003	4 Qtr 2003		
Sample depth in feet	55 to 61.5	dry	dry	59 to 70	59 to 70						
Date Sampled	10/29/2001	03/14/2002	06/24/2002	09/17/2002	12/19/2002						
Days since system start up	-17	119	221	306	399						
Days since initial sample	0	136	238	323	416						
Volatile Organics (EPA METHOD 8021) Units											
Tetrachloroethene	ug/L	220	dry	dry	1.6	ND	ND	ND	ND	ND	5.00
Trichloroethene	ug/L	24	dry	dry	ND	ND	ND	ND	ND	ND	5.00
cis-1,2-Dichloroethene	ug/L	25	dry	dry	ND	ND	ND	ND	ND	ND	5.00
trans-1,2-Dichloroethene	ug/L	ND	dry	dry	ND	ND	ND	ND	ND	ND	5.00
Vinyl Chloride	ug/L	ND	dry	dry	ND	ND	ND	ND	ND	ND	2.00
1,1,1 Trichloroethane	ug/L	10	dry	dry	ND	ND	ND	ND	ND	ND	5.00
1,1Dichloroethane	ug/L	ND	dry	dry	ND	ND	ND	ND	ND	ND	5.00
Chloroethane	ug/L	ND	dry	dry	ND	ND	ND	ND	ND	ND	5.00

Notes:  
 ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

Prepared by CA Rich Consultants Inc.

**MW-5 (MW-5R)**  
Tetrachloroethene versus time



[There is no data for dates when the well is dry]



**Table 6**  
**Summary of Analytical Detections in Well MW-6**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

Well ID	MW-6		MW-6		MW-6		MW-6		MW-6		MW-6		NYSDEC TOGS* values
	Baseline Data	1 Qtr 2002	2 Qtr 2002	3 Qtr 2002	4 Qtr 2002	1 Qtr 2003	2 Qtr 2003	3 Qtr 2003	4 Qtr 2003	55 to 95	55 to 95	55 to 95	
Comments/Calendar Quarter	10/29/2001	03/14/2002	06/24/2002	09/17/2002	12/19/2002								
Sample depth in feet	55 to 95	55 to 95	55 to 95	55 to 95	55 to 95								
Date Sampled	10/29/2001	03/14/2002	06/24/2002	09/17/2002	12/19/2002								
Days since system start up	-17	119	221	306	399								
Days since initial sample	0	136	238	323	416								
Volatile Organics (EPA METHOD 8021)													
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Tetrachloroethene	40	46	8.6	12	5.9								5.00
Trichloroethene	4	3.7	ND	1.1	ND								5.00
cis-1,2-Dichloroethene	8.9	13	4.1	5.8	ND								5.00
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND								5.00
Vinyl Chloride	ND	ND	ND	ND	ND								2.00
1,1,1 Trichloroethane	1.5	2.4	ND	ND	ND								5.00
1,1Dichloroethane	ND	ND	ND	ND	ND								5.00
Chloroethane	ND	ND	ND	ND	ND								5.00

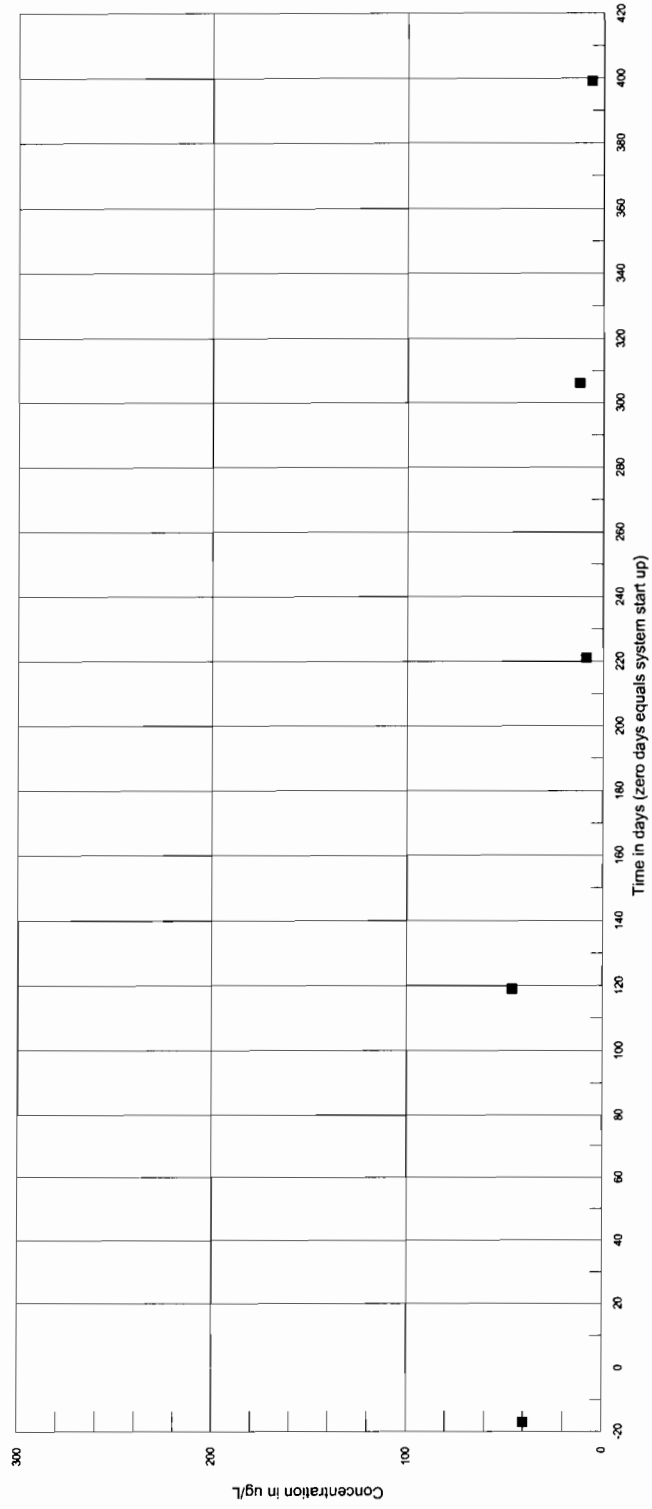
**Notes:**

ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

Prepared by CA Rich Consultants Inc.

MW-6  
Tetrachloroethene versus time



**Table 7**  
**Summary of Analytical Detections in Well MW-7S**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

Well ID Comments/Calendar Quarter Sample depth in feet Date Sampled Days since system start up Days since initial sample	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	NYSDEC TOGS* values	
	Baseline Data 55 to70 10/29/2001 -17	1 Qtr 2002 55 to70 03/14/2002	2 Qtr 2002 55 to70 06/24/2002	3 Qtr 2002 55 to70 09/17/2002	4 Qtr 2002 55 to70 12/19/2002	1 Qtr 2003	2 Qtr 2003	3 Qtr 2003	4 Qtr 2003	1 Qtr 2002 55 to70 09/17/2002	2 Qtr 2002 55 to70 12/19/2002	3 Qtr 2002 55 to70 09/17/2002	4 Qtr 2002 55 to70 12/19/2002
	0	136	221	306	399								
			238	323	416								
Volatile Organics (EPA METHOD 8021) Units													
Tetrachloroethene	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
	ND	31	8.6	5.6	3.3								5.00
Trichloroethene	ND	2.7	ND	ND	ND								5.00
cis-1,2-Dichloroethene	ND	7.1	2.9	ND	ND								5.00
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND								5.00
Vinyl Chloride	ND	ND	ND	ND	ND								2.00
1,1,1 Trichloroethane	ND	1.5	ND	ND	ND								5.00
1,1Dichloroethane	ND	ND	ND	ND	ND								5.00
Chloroethane	ND	ND	ND	ND	ND								5.00

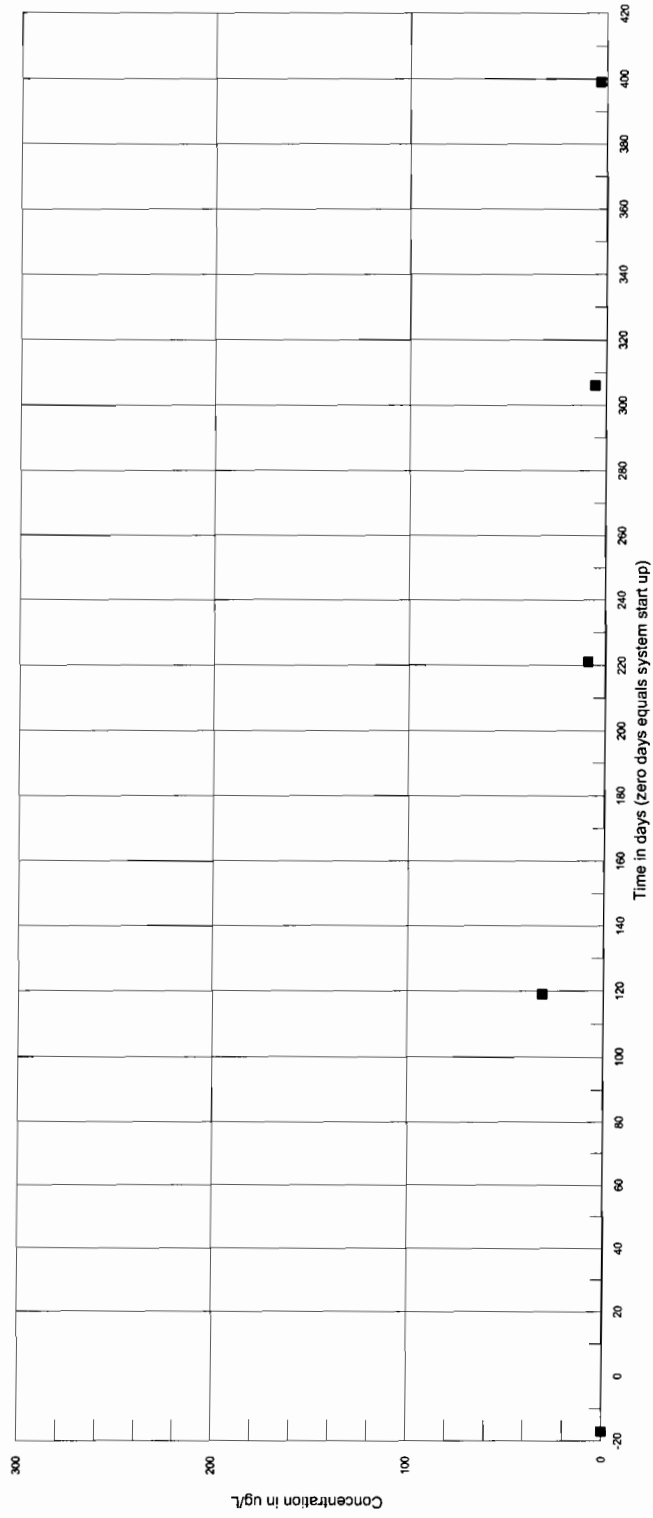
**Notes:**

ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

Prepared by CA Rich Consultants Inc.

MW-7S  
Tetrachloroethene versus time



**Table 8**  
**Summary of Analytical Detections in Well MW-71**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

Well ID Comments/Calendar Quarter Sample depth in feet Date Sampled Days since system start up Days since initial sample	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	NYSDEC TOGS* values
	Baseline Data 78 to 88 10/29/2001 -17 0	1 Qtr 2002 78 to 88 03/14/2002 119 136	2 Qtr 2002 78 to 88 06/24/2002 221 238	3 Qtr 2002 78 to 88 09/17/2002 306 323	4 Qtr 2002 78 to 88 12/19/2002 399 416	1 Qtr 2003	2 Qtr 2003	3 Qtr 2003	4 Qtr 2003			
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Volatile Organics (EPA METHOD 8021) Units												
Tetrachloroethene	260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
Trichloroethene	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
cis-1,2-Dichloroethene	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00
1,1,1 Trichloroethane	19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
1,1Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00

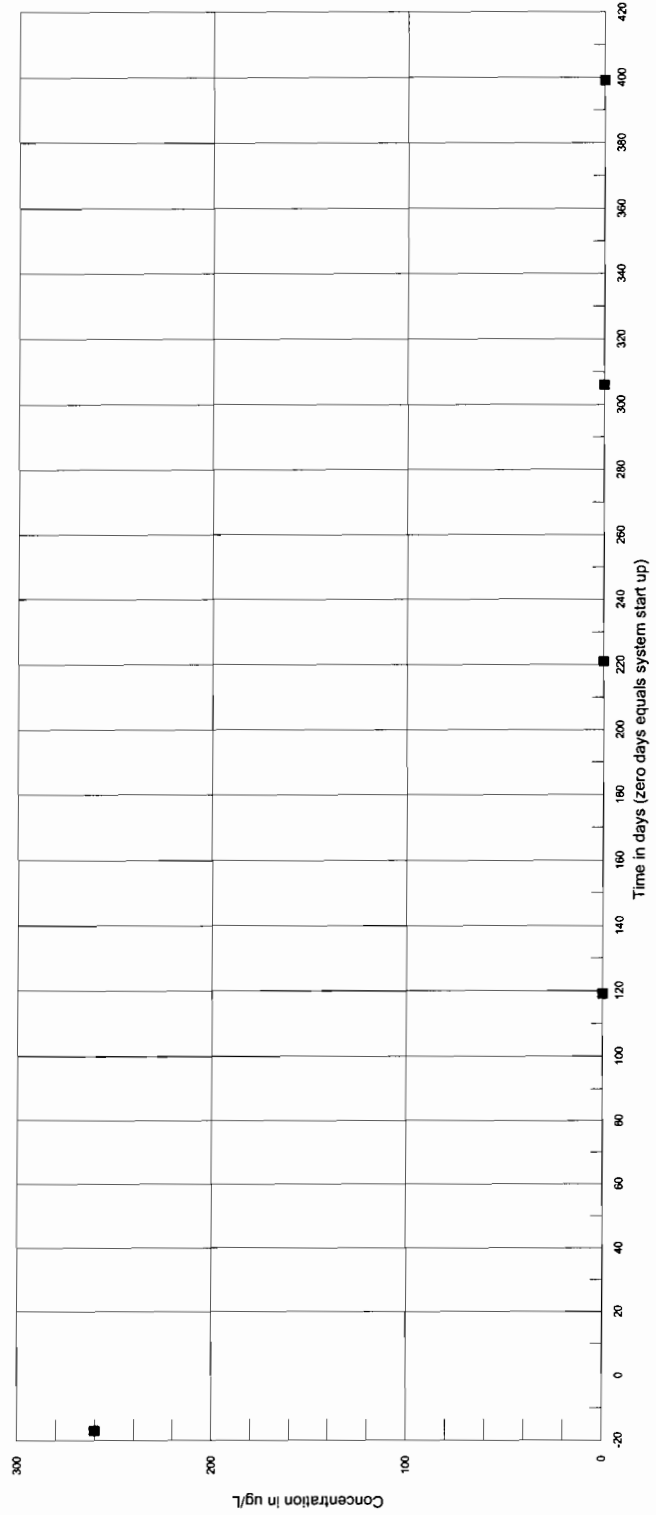
**Notes:**

ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

Prepared by CA Rich Consultants Inc.

MW-71  
Tetrachloroethene versus time



**Table 9**  
**Summary of Analytical Detections in Well MW-7D**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

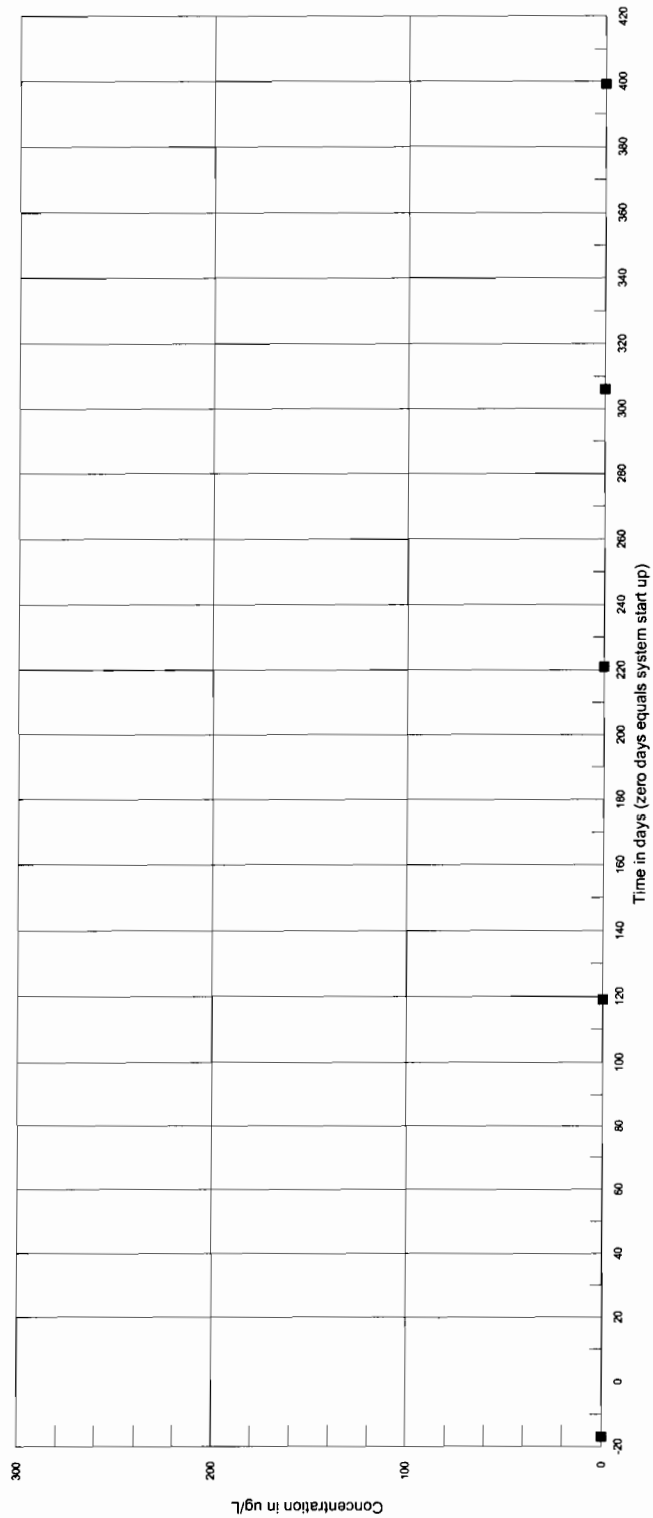
Well ID	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	NYSDEC TOGS* values	
Comments/Calendar Quarter	Baseline Data	1 Qtr 2002	2 Qtr 2002	3 Qtr 2002	4 Qtr 2002	1 Qtr 2003	2 Qtr 2003	3 Qtr 2003	4 Qtr 2003	1 Qtr 2002	2 Qtr 2002	3 Qtr 2002	4 Qtr 2002
Depth in feet	95 to 105	95 to 105	95 to 105	95 to 105	95 to 105	95 to 105	95 to 105	95 to 105	95 to 105	12/19/2002	09/17/2002	06/24/2002	03/14/2002
Date Sampled	10/29/2001	03/14/2002	06/24/2002	09/17/2002	12/19/2002	03/14/2003	06/24/2003	09/17/2003	12/19/2003	03/14/2004	06/24/2004	09/17/2004	12/19/2004
Days since system start up	-17	119	221	306	399	416							
Days since initial sample	0	136	238	323	416								
Volatile Organics (EPA METHOD 8021) Units													
Tetrachloroethene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1 Trichloroethane	ug/L	2.6	1.2	1.6	2.5	ND	ND	ND	ND	ND	ND	ND	ND
1,1Dichloroethane	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:  
 ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

**Prepared by CA Rich Consultants Inc.**

MW-7D  
Tetrachloroethene versus time



■ Concentration in ug/L

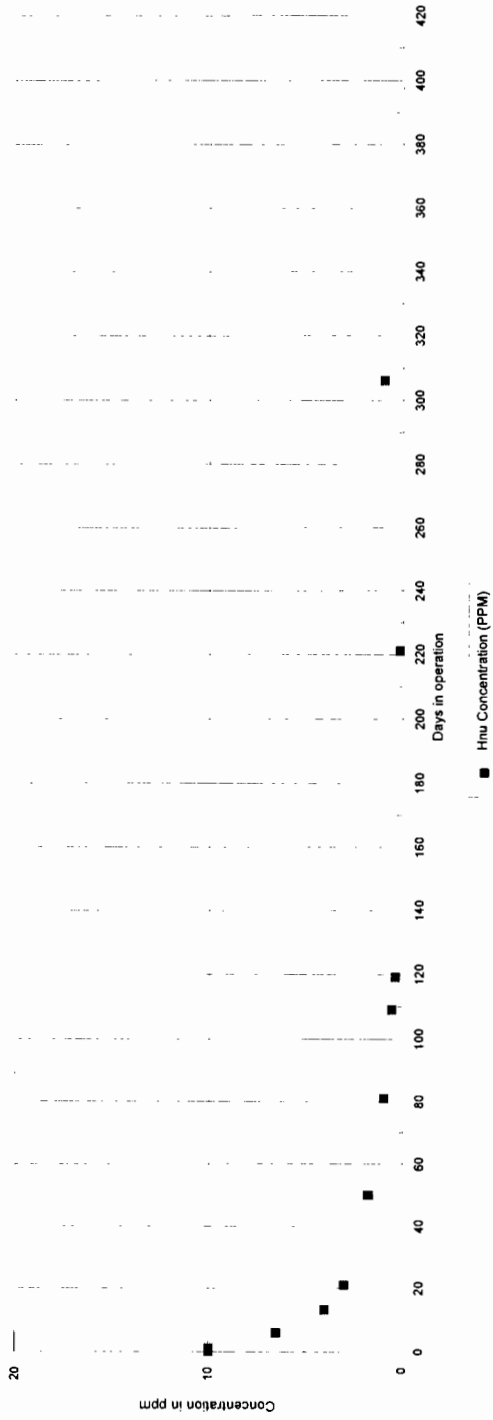


**Table 10**  
**Soil Vapor Extraction Readings**  
**Utility Manufacturing Company**  
**700 Main Street, Westbury, NY**

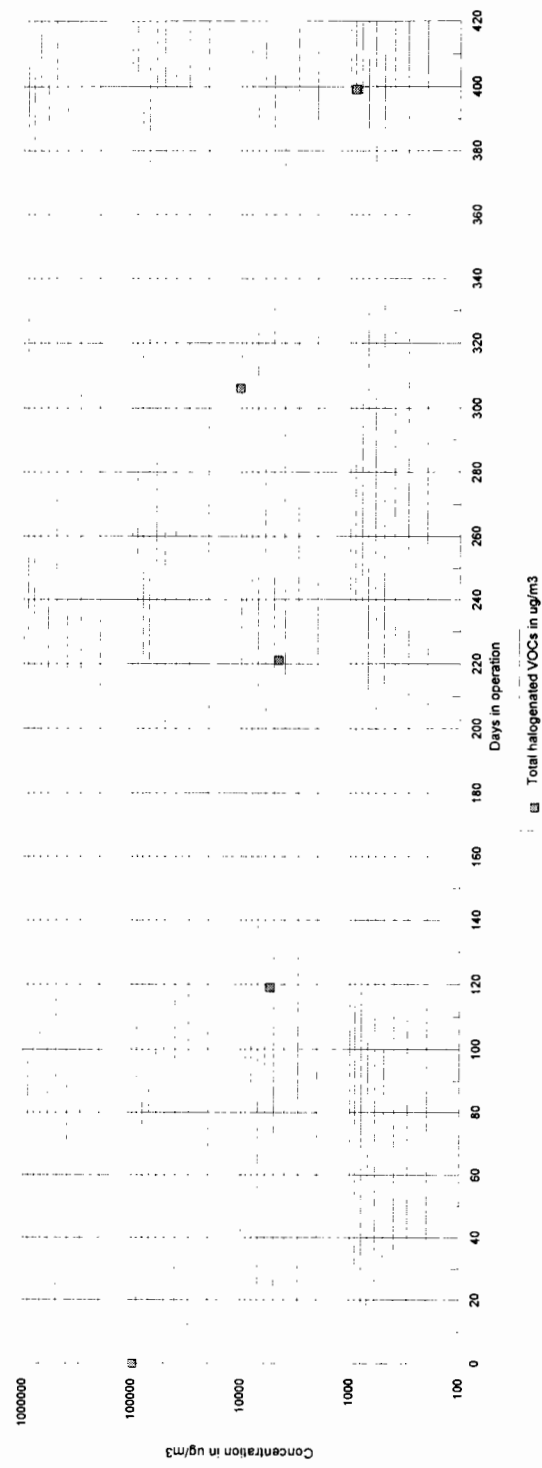
Date	Number of Days in Operation	HNU Before Carbon*	PCE Before Carbon**	TCE Before Carbon**	DCE Before Carbon**	TCA Before Carbon**	Total VOCs Before Carbon**	Comments
11/15/2001	0	10	53,000	14,000	22,000	8,000	97,000	Pilot Test & System Start-up - tube sample
11/16/2001	1	10						
11/21/2001	6	6.5						
11/28/2001	13	4						
12/06/2001	21	3						
01/04/2002	50	1.8						
02/04/2002	81	1						
03/04/2002	109	0.6						
03/14/2002	119	0.4	4,100	470	370	460	5,400	
06/24/2002	221	0.2	3,400	320	380	480	4,580	
09/17/2002	306	1	6,800	1,100	880	1,500	10,280	
12/19/2002	399	MM	ND	ND	190	710	900	

Notes: \* - HNU field meter with 10.2 ev lamp measures total VOCs in PPM  
 \*\* - All laboratory analyses reported in ug/m3  
 NA - Not Applicable  
 MM - Meter Malfunctioned

### HNU vapor readings versus time of operation



### Laboratory vapor readings versus time of operation



# APPENDIX A

**DATA PACKAGE FOR  
VOLATILE ORGANICS**

**PROJECT NAME: utility**

**RICH CONSULTANTS  
17 DUPONT STREET  
PLAINVIEW, NY 11803  
5165768844**

**CHEMTECH PROJECT NO.  
ATTENTION:**

**P5650  
Mike Yager**

**CHEMTECH**

284 Sheffield Street Mountainside NJ 07092  
Tel. 908-789-8900

**COVER PAGE**

COVER PAGE

Order P5650

ProjectID: utility

CustomerName Rich Consultants

LAB SAMPLE NO.	CLIENT SAMPLE NO
P5650-01	MW-1
P5650-02	MW-3
P5650-03	MW-4
P5650-04	MW-5
P5650-05	MW-6
P5650-06	MW-7S
P5650-07	MW-7I
P5650-08	MW-7D
P5650-09	MW-5DUP
P5650-10	MW-7IMS
P5650-11	MW-7IMSD
P5650-12	FIELDBLANK
P5650-13	TRIPBLANK

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

Signature: Martha Guerra Name: Martha Guerra  
Date: 11/10/02 Title: QA/QC

# CHEMTECH

## QA/QC DELIVERABLES CHECKLIST

Project Number: p5650

THIS FORM HAS BEEN COMPLETED BY CHEMTECH LABORATORY AND ACCOMPANIES ALL DATA DELIVERABLES PACKAGES.

The following laboratory deliverables are included in this analytical report. Any deviations from the accepted methodology and procedures, or performance values outside acceptable ranges are summarized in the Non-Conformance Summary.

	Yes	NA
I. Report Cover Page, Laboratory Certification and Field Sample to Lab Sample ID Cross Reference	<input checked="" type="checkbox"/>	<input type="checkbox"/>
II. Table of Contents	<input checked="" type="checkbox"/>	<input type="checkbox"/>
III. Chain of Custody Documents	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IV. Methodology Summaries	<input checked="" type="checkbox"/>	<input type="checkbox"/>
V. Laboratory Chronicle and Hold Time Checks	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VI. Non-Conformance Summary	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VII. Tabulated Analytical Results	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VIII. Initial and Continuing Calibration Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IX. Tune and Internal Standard Area Summaries (GC/MS)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
X. Quality Control Summary Reports	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XI. Surrogate Recovery Summary	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XII. Raw Data Chromatogram, Blank, Samples and QC when applicable	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XIII. Subcontract Data	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Martha Aurora  
QA/QC Data Reviewer

1/10/03  
Date

110 Route 4  
Englewood, NJ 07631  
Phone: 201.508 7400 Fax: 201.567 3231

284 Sheffield Street  
Mountainside, NJ 07093  
Tel: 908 391 8900 Fax: 908 739 8900

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**PROJECT NUMBER: P5650**

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5-4A  
6/11/03



**CHEMTECH**

284 Sheffield Street Mountainside NJ 07092  
Tel. 908-789-8900

**CHAIN OF  
CUSTODY  
RECORD**



CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
(908) 789-8900 Fax (908) 789-8922  
www.chemtech.net

CHEMTECH JOB NO.:

PS650

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

CLIENT: CA RICH CONSULTANTS, INC  
ADDRESS: 17 DURRANT STREET  
CITY: PLAINVIEW STATE: NY ZIP: 11803

PROJECT INFORMATION

PROJECT NAME: UTILITY MANUFACTURING  
PROJECT NO.: UTILITY LOCATION: RIE DIM  
PROJECT MANAGER: ERIC WEINSTEIN  
E-MAIL:

BILLING INFORMATION

BILL TO: CA RICH CONSULTANTS  
ADDRESS: 17 DURRANT STREET  
CITY: PLAINVIEW STATE: NY ZIP: 11803  
ATTENTION: MIKE YAKSE PHONE: 516-576-8883

DATA TURNAROUND INFORMATION

FM: \_\_\_\_\_ DAYS\*  
P-R-C: \_\_\_\_\_ DAYS\*  
EDD: \_\_\_\_\_ DAYS\*

\* TO BE APPROVED BY CHEMTECH

\*\* NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

RESULTS ONLY  USEPA CLP  
 RESULTS + QC  NYS ASP "B"  
 NJ REDUCED  NYS ASP "A"  
 NJ CLP  EDD  
 EDD FORMAT: \_\_\_\_\_

PHONE: 516-576-8883 FAX: 516-576-8883

ANALYSIS

FEASIBILITY ANALYSIS  
1 2 3 4 5 6 7 8 9

PROJECT IDENTIFICATION

CHEMTECH SAMPLE ID: \_\_\_\_\_  
PROJECT IDENTIFICATION: \_\_\_\_\_

COMMENTS

← Specify Preservatives  
A - HCl B - HNO<sub>3</sub>  
C - H<sub>2</sub>SO<sub>4</sub> D - NaOH  
E - ICE F - Other

PRESERVATIVES

1	2	3	4	5	6	7	8	9
A								

SAMPLE MATRIX	SAMPLE TYPE	COMP	GRAB	SAMPLE COLLECTION		OF BOTTLES	PRESERVATIVES									COMMENTS			
				DATE	TIME		1	2	3	4	5	6	7	8	9				
WATER	✓			11/19	1055	2													
					1115	2													
					1125	1													
					1315	2													
					1320	2													
					1355	2													
					1425	2													
					1520	2													

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

DATE/TIME:	RECEIVED BY:	DATE/TIME:	RECEIVED BY:
12/19/02	1. _____		
12/23/02	3. Sunny Patey		

CONDITIONS OF BOTTLES OR COOLERS AT RECEIPT:  Compliant  Non-Compliant  Temp. of Cooler: 4.6  
MeOH extractions requires an additional 4-oz. jar for percent solid.  
Comments:

Shipped Via: Client  Hand Delivered  Overnight  Picked Up  Overnight  No

Page 1 of 2

284 Sheffield Street, Mountainside, NJ 07092  
 (908) 789-8900 Fax (908) 789-8922  
 www.chemtech.net

CHEMTECH JOB NO.: **P5650**  
 CHEMTECH QUOTE NO.:

CLIENT INFORMATION	PROJECT INFORMATION	BILLING INFORMATION	ANALYSIS						
REPORT TO BE SENT TO: CHEMTECH CONSULTANTS ADDRESS: 17 DUPONT STREET CITY: PLAINVIEW STATE: NY ZIP: 11803 ATTENTION: MICHAEL YASSER PHONE: 516-884-5916 FAX: 516-884-5914	PROJECT NAME: UTILITY MANUFACTURING PROJECT NO.: UTILITY MODERNIZATION PROJECT MANAGER: ERIC WEINSTEIN E-MAIL: PHONE: 516-884-5916 FAX: 516-576-2023	BILL TO: CA Rich CONSULTANTS ADDRESS: 17 DUPONT STREET CITY: PLAINVIEW STATE: NY ZIP: 11803 ATTENTION: MIKE YASSER PHONE: 516-576-8844	ANALYSIS (Grid for analysis results)						
DATA TURNAROUND INFORMATION DAYS: _____ DAYS: _____ DAYS: _____ TO BE APPROVED BY CHEMTECH GENERAL TURNAROUND TIME - 14 DAYS	DATA DELIVERABLE INFORMATION <input type="checkbox"/> RESULTS ONLY <input type="checkbox"/> RESULTS + QC <input type="checkbox"/> NJ REDUCED <input type="checkbox"/> NJ CLP <input type="checkbox"/> EDD FORMAT: <input type="checkbox"/> USEPA CLP <input checked="" type="checkbox"/> NYS ASP "B" <input type="checkbox"/> NYS ASP "A" <input type="checkbox"/> EDD								
PROJECT IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION	DATE	TIME	# OF BOTTLES	PRESERVATIVES	COMMENTS	
1 MW-5 (DUP) 2 MW-7E (MS) 3 MW-7E (MS) 4 FIELD BLANK 5 TRIP BLANK	WATER ↓ ↓ ↓	✓ ↓ ↓ ↓	1315 1425 1425 1350	12/19 ↓ ↓ ↓	1315 1425 1425 1350	2 ↓ ↓ ↓	A ↓ ↓ ↓	↓ ↓ ↓ ↓	
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY									
RECEIVED BY: 1. <i>[Signature]</i> DATE/TIME: 12/19/02	RECEIVED BY: 2. <i>[Signature]</i> DATE/TIME: 12/23/02	RECEIVED FOR LAB BY: 3. <i>[Signature]</i> DATE/TIME: 1000 12/23/02	Conditions of bottles or coolers at receipt: <input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input checked="" type="checkbox"/> Temp. of Cooler <b>4's</b> MeOH extractions requires an additional 4oz. jar for percent solid.						Comments: Shipped Via: Client <input type="checkbox"/> Hand Delivered <input checked="" type="checkbox"/> Picked Up <input type="checkbox"/> Overnight <input type="checkbox"/> Overnight <input type="checkbox"/> Complete
Page <b>2</b> of <b>2</b>		WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY							

## Record Of Communication Login Change Form

### Internal Communication

<b>Order Number:</b> P5650	<b>Today's Date:</b> 01/10/03
<b>Client:</b> CA Rich	<b>Sample Date:</b> 12/19/02
<b>Client Contact:</b> Mike Yager	<b>Form Initiated by:</b> <del>Kurt Hummler</del> <i>DAVELLE JOHNSON</i>
<b>Project Manager</b> Kurt Hummler	
<b>General Comments/Special Instructions:</b> Report 8010 List	

Call initiated by:  Client  Chemtech

#### Login Changes

Sample Number	Add Test	Delete Test	Change TAT

Signature *Davelle Johnson*

Date 1-10-03

**DATA REPORTING QUALIFIERS- ORGANIC**

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.

## DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

- B If the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
- U If the analyte was analyzed for, but not detected.
- E The reported value is estimated because of the presence of interference
- M Duplicate injection precision not met.
- N Spiked sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Addition (MSA).
- W Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while absorbance is less than 50% of spike absorbance.
- \* Duplicate analysis not within control limits.
- + Correlation coefficient for the MSA is less than 0.995.
- \*\*\* Entering "S", "W " or " +" is mutually exclusive. NO combination of these qualifiers can appear in the same field for an analyte.

### M

#### Method qualifiers

- "P" for ICP instrument
- "A" for Flame AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for flame AA when Microwave Digestion is used
- "FM" for furnace AA when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for automated Cold Vapor AA
- "CA" for MIDI-Distillation Spectrophotometric
- "AS" for Semi -Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- "NR" for analyte not required to be analyzed

**CHEMTECH**

284 Sheffield Street Mountainside, NJ 07092  
Tel: 908-789-8900

**METHODOLOGY  
REVIEW  
&  
LABORATORY  
CHRONICLE**

**LABORATORY CHRONICLE**

**CLIENT:** CA RICH CONSULTANTS, INC.  
**CLIENT PROJECT:** UTILITY  
**DATE RECEIVED:** 12/23/02  
**LABORATORY PROJECT:** P5650

<b><u>SAMPLE DATE</u></b>	<b><u>ANALYSIS DATES</u></b>	<b><u>ANALYSIS</u></b>
12/19/02	1/02/03	GC VOLATILE ORGANIC



**METHODOLOGY**

Volatile Organic by GC

\*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition

\*\* Method 8021B

\* Indicates reference

\*\* Indicates Methods

**CHEMTECH**

284 Sheffield Street Mountainside NJ 07092  
Tel. 908-789-8900

**CONFORMANCE/  
NON-  
CONFORMANCE  
SUMMARY**

**CHEMTECH** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#:12013 : NEW YORK LAB ID#: 11376

GC VOA ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT LAB NUMBER: PS650 MATRIX: Water  
METHOD: 8010

- |  | <u>YES</u>                          | <u>NA</u>                | <u>NO</u>                           |
|--|-------------------------------------|--------------------------|-------------------------------------|
| 1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 2. Standards Summary Submitted   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 4. Blank Contamination - If yes, list compounds and concentrations in each blank:  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

VOA Fraction \_\_\_\_\_  
Other \_\_\_\_\_

5. Surrogate Recoveries Meet Criteria

If not met, list those compounds and their recoveries which fall outside the acceptable ranges

VOA Fraction \_\_\_\_\_  
Other \_\_\_\_\_

6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria.

If not met, list those compounds and their recoveries which fall outside the acceptable range.

VOA  
Fraction please see MS/MSD table  
Other \_\_\_\_\_

**CHEMTECH** 284 Sheffield Street, Mountainside New Jersey 07092  
NEW JERSEY LAB ID#: 12013 : NEW YORK LAB ID#: 11376

GC VOA ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

YES   NA   NO

7. Extraction Holding Time Met

\_\_\_\_\_  \_\_\_\_\_

If not met, list number of days exceeded for each sample:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. Analysis Holding Time Met

\_\_\_\_\_

If not met, list number of days exceeded for each sample:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Additional

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

[Signature]  
Analyst

01/10/03  
Date

[Signature]  
QA REVIEW

1/10/03  
Date

PEER REVIEW CHECKLIST FOR GC DATA

Fraction: Soil Project #: P2050

Sample Numbers: 1-13

QA DATA:

ITEM	Completed
Check instrument log for samples in batch. Highlights.	<input checked="" type="checkbox"/>
Make sure correct lab numbers are listed on all data.	<input checked="" type="checkbox"/>
Check Chain Custody and Login Sheet for project specific information.	<input checked="" type="checkbox"/>
Check that all manual integrations are initialed and dated.	<input checked="" type="checkbox"/>
Verify that the retention time of every peak of interest meet the criteria for window (RT $\pm$ 3 times the standard deviation of the mean absolute value or default to 0.03 minutes.)	<input checked="" type="checkbox"/>
BLANKS:	
Check quant report for compounds called and quantitation.	<input checked="" type="checkbox"/>
Check if any compounds need to be flagged with a J.	<input checked="" type="checkbox"/>
Check that blank meets contamination criteria.	<input checked="" type="checkbox"/>
Check blank chromatograms to ensure that all peaks are accounted for.	<input checked="" type="checkbox"/>
Check that all compounds not called are crossed off, initialed and dated on quantitation reports.	<input checked="" type="checkbox"/>
CALIBRATION:	
Check that the proper initial and continuing calibration forms are included.	<input checked="" type="checkbox"/>
Compare initial curves to continuing curve to make sure correct curves are included.	<input checked="" type="checkbox"/>
Verify dates on curves.	<input checked="" type="checkbox"/>
Verify that extra compound initial calibration and continuing are included.	<input checked="" type="checkbox"/>
Verify that a continuous calibration check is run every 12 hrs for 8000 series and CLP and every 24hrs for 600 series	<input checked="" type="checkbox"/>
Check that the criteria is met on the initial and continuing calibrations. 20% RSD for initial calibration and 15% for continuing calibration for 8000 series, 25% for CLP and 10% RSD and Table on SOP for continuing for 600 series	<input checked="" type="checkbox"/>
Verify a closing check is analyzed for each analytical sequence	<input checked="" type="checkbox"/>
Verify that the concentration of the CCC is varied	<input checked="" type="checkbox"/>
SURROGATES:	
Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).	<input checked="" type="checkbox"/>
Check that surrogate recoveries meet QC limits listed on the form. Make sure values outside of limits are flagged and tallied.	<input checked="" type="checkbox"/>
Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-analyzed to prove matrix interference).	<input checked="" type="checkbox"/>
Verify surrogates reported to the quantitation reports.	<input checked="" type="checkbox"/>
SPIKES:	
Check that appropriate sample is on the spike recovery form.	<input checked="" type="checkbox"/>
Verify that the correct spike sample is being reported for that batch.	<input checked="" type="checkbox"/>
Check that the spike recoveries are reported on the appropriate form (i.e. water, soil).	<input checked="" type="checkbox"/>
Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.	<input checked="" type="checkbox"/>
Verify spike recoveries to quantitation reports.	<input checked="" type="checkbox"/>
Verify that a blank spike was analyzed for each batch of 20 samples.	<input checked="" type="checkbox"/>
Verify that the blank spike meets QC requirements (70-130%)	<input checked="" type="checkbox"/>
If any values outside of QC limits exist on MS/MSD, was Blank Spike used?	<input checked="" type="checkbox"/>

Non-conformances / Comments: \_\_\_\_\_

SAMPLES:

ITEM

Completed

- |   |                                     |
|---|-------------------------------------|
| Check that all manual integrations are initialed, dated and justified.  | <input checked="" type="checkbox"/> |
| Check that the correct sample matrix and units are on the result form.  | <input checked="" type="checkbox"/> |
| Check quant report for targeted compounds called and verify quantitation (be sure to take moisture and dilutions into account). | <input checked="" type="checkbox"/> |
| Check to ensure that compounds which exceeds the linear range have been diluted, re-analyzed, and quanted from the dilution.    | <input checked="" type="checkbox"/> |
| Check that reporting limits are typical and if not (reason is not apparent) are footnoted.                                      | <input checked="" type="checkbox"/> |
| Verify reporting limits for extra compounds.  | <input checked="" type="checkbox"/> |
| Check chromatograms to ensure that all peaks are accounted for.   | <input checked="" type="checkbox"/> |
| Check if any of the data requires a footnote.   | <input checked="" type="checkbox"/> |
| Check that the samples were analyzed / extracted within their holding time.   | <input checked="" type="checkbox"/> |

Non - Conformance / Comments: \_\_\_\_\_

Peer Review Signature:

*Lucretia Mangueira*

Date:

*1-10-03*

TECHNICAL SUPERVISOR REVIEW:

ITEM

Completed

- |   |                                     |
|---|-------------------------------------|
| Check for compliance with the Method and project specific requirements. | <input checked="" type="checkbox"/> |
| Check the report for completeness.                                      | <input checked="" type="checkbox"/> |
| Check the information in the case narrative.                            | <input checked="" type="checkbox"/> |
| Check the results for reasonableness.                                   | <input checked="" type="checkbox"/> |

Technical Supervisor Review Signature:

*Martha Oliveira*

Date:

*1/10/03*

**CHEMTECH**

**TABULATED ANALYTICAL RESULTS**

**GC VOLATILE ORGANICS**

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-1  
LAB ID: P5650-01  
FILENAME: F:\DATA1\U010121.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U		1.0
74-87-3	CHLOROMETHANE	U		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	3.9	B	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U		1.0
127-18-4	TETRACHLOROETHENE	2.0		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW



Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-3  
LAB ID: P5650-02  
FILENAME: F:\DATA1\U010122.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U		1.0
74-87-3	CHLOROMETHANE	U		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	3.0	B	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U		1.0
127-18-4	TETRACHLOROETHENE	13		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-4  
LAB ID: P5650-03  
FILENAME: F:\DATA1\U010123.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U		1.0
74-87-3	CHLOROMETHANE	U		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	3.9	B	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	2.8		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U		1.0
127-18-4	TETRACHLOROETHENE	8.6		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-5  
LAB ID: P5650-04  
FILENAME: F:\DATA1\U010124.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U		1.0
74-87-3	CHLOROMETHANE	U		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	4.5	B	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U		1.0
127-18-4	TETRACHLOROETHENE	U		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-6  
LAB ID: P5650-05  
FILENAME: F:\DATA1\U010125.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U		1.0
74-87-3	CHLOROMETHANE	U		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	3.3	B	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U		1.0
127-18-4	TETRACHLOROETHENE	5.9		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-7S  
LAB ID: P5650-06  
FILENAME: F:\DATA1\U010126.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U		1.0
74-87-3	CHLOROMETHANE	U		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	3.6	B	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U		1.0
127-18-4	TETRACHLOROETHENE	3.3		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-7I  
LAB ID: P5650-07  
FILENAME: F:\DATA1\U010127.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U		1.0
74-87-3	CHLOROMETHANE	U		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	4.6	B	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U		1.0
127-18-4	TETRACHLOROETHENE	U		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-7D  
LAB ID: P5650-08  
FILENAME: F:\DATA1\U010128.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U		1.0
74-87-3	CHLOROMETHANE	U		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	U		1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U		1.0
127-18-4	TETRACHLOROETHENE	U		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-5DUP  
LAB ID: P5650-09  
FILENAME: F:\DATA1\U010210.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U		1.0
74-87-3	CHLOROMETHANE	U		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	U		1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U		1.0
127-18-4	TETRACHLOROETHENE	U		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW



Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: FIELDBLANK  
LAB ID: P5650-12  
FILENAME: F:\DATA1\U010205.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U		1.0
74-87-3	CHLOROMETHANE	U		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	2.0		1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U		1.0
127-18-4	TETRACHLOROETHENE	U		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLORO BUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

F = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: TRIPBLANK  
LAB ID: P5650-13  
FILENAME: F:\DATA1\U010206.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U		1.0
74-87-3	CHLOROMETHANE	U		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	2.2		1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U		1.0
127-18-4	TETRACHLOROETHENE	U		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

**CHEMTECH**

**QUALITY CONTROL SUMMARY REPORTS**

**GC VOLATILE ORGANICS**

GC VOLATILES  
SURROGATE SUMMARY FORM  
**PROJECT UTILITY**  
**Matrix WATER**  
**Analyst PHM**

LAB SAMPLE ID	LAB FILENAME	DATE ANALYZED	TIME ANALYZED	1,4-DCB % REC	BCB % REC
VBA0101W2	U010120.RAW	1/2/03	1:21	102%	74%
VBA0102W2	U010204.RAW	1/2/03	15:07	70%	79%
BSA0102W1	U010209.RAW	1/2/03	18:54	95%	90%
P5650-10MS	U010207.RAW	1/2/03	17:24	87%	77%
P5650-11MSD	U010208.RAW	1/2/03	18:09	98%	103%
P5650-01	U010121.RAW	1/2/03	2:06	101%	62%
P5650-02	U010122.RAW	1/2/03	2:52	92%	58%
P5650-03	U010123.RAW	1/2/03	3:37	67%	68%
P5650-04	U010124.RAW	1/2/03	4:22	114%	74%
P5650-05	U010125.RAW	1/2/03	5:08	111%	84%
P5650-06	U010126.RAW	1/2/03	5:53	93%	74%
P5650-07	U010127.RAW	1/2/03	6:38	93%	60%
P5650-08	U010128.RAW	1/2/03	7:23	97%	76%
P5650-09	U010210.RAW	1/2/03	19:40	77%	68%
P5650-12	U010205.RAW	1/2/03	15:52	78%	56%
P5650-13	U010206.RAW	1/2/03	16:38	130%	92%

1,4 DCB = 1,4 Dichlorobutane (LIMITS: 40-160)

BCB = Bromochlorobenzene (LIMITS: 40-185)

\* Values outside of QC limits

Method 8010

**Method Blank**

Filename: F:\DATA1\U010120.RAW

Batch:F:\DATA1\U010102.SEQ

Date: 1/2/03

Matrix:Water

CAS #	COMPOUNDS	RESULTS (ug/L)	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U	1.0
74-87-3	CHLOROMETHANE	U	1.0
75-01-4	VINYL CHLORIDE	U	1.0
74-97-5	BROMOMETHANE	U	1.0
75-00-3	CHLOROETHANE	U	1.0
75-69-4	TRICHLOROFLOUROMETHANE	U	1.0
75-35-4	1,1 DICHLOROETHENE	U	1.0
75-09-2	METHYLENE CHLORIDE	5.2	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U	1.0
75-34-3	1,1 DICHLOROETHANE	U	1.0
	2,2-DCPRPA+CIS-1,2DICHLOROETHE	U	2.0
67-66-3	CHLOROFORM	U	1.0
74-97-5	BROMOCHLOROMETHANE	U	1.0
71-55-6	1,1,1 TRICHLOROETHANE	U	1.0
563-58-6	1,1 DICHLOROPROPENE	U	1.0
56-23-5	CARBON TETRACHLORIDE	U	1.0
107-06-2	1,2 DICHLOROETHANE	U	1.0
79-01-6	TRICHLOROETHENE	U	1.0
78-87-5	1,2 DICHLOROPROPANE	U	1.0
75-27-4	BROMODICHLOROMETHANE	U	1.0
74-95-3	DIBROMOMETHANE	U	1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U	1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U	1.0
630-20-6	1,1,2-TRICHLOROETHANE	U	1.0
142-28-9	1,3 DICHLOROPROPANE	U	1.0
127-18-4	TETRACHLOROETHENE	U	1.0
75-27-4	DIBROMOCHLOROMETHANE	U	1.0
106-93-4	1,2 DIBROMOETHANE	U	1.0
108-90-7	CHLOROBENZENE	U	1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U	1.0
75-25-2	BROMOFORM	U	1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U	1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U	1.0
108-86-1	BROMOBENZENE	U	1.0
95-49-8	2, CHLOROTOLUENE	U	1.0
106-34-4	4, CHLOROTOLUENE	U	1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	1.0
87-68-3	HEXACHLOROBUTADIENE	U	1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U	1.0

MDL - Method Detection Limit

U - Undetected below MDL

COMMENTS:

Method 8010

**Method Blank**

Filename: F:\DATA1\U010204.RAW

Batch:F:\DATA1\U010203.SEQ

Date: 1/2/03

Matrix:Water

CAS #	COMPOUNDS	RESULTS (ug/L)	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U	1.0
74-87-3	CHLOROMETHANE	U	1.0
75-01-4	VINYL CHLORIDE	U	1.0
74-97-5	BROMOMETHANE	U	1.0
75-00-3	CHLOROETHANE	U	1.0
75-69-4	TRICHLOROFLOUROMETHANE	U	1.0
75-35-4	1,1 DICHLOROETHENE	U	1.0
75-09-2	METHYLENE CHLORIDE	U	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U	1.0
75-34-3	1,1 DICHLOROETHANE	U	1.0
	2,2-DCPRPA+CIS-1,2DICHLOROETHE	U	2.0
67-66-3	CHLOROFORM	U	1.0
74-97-5	BROMOCHLOROMETHANE	U	1.0
71-55-6	1,1,1 TRICHLOROETHANE	U	1.0
563-58-6	1,1 DICHLOROPROPENE	U	1.0
56-23-5	CARBON TETRACHLORIDE	U	1.0
107-06-2	1,2 DICHLOROETHANE	U	1.0
79-01-6	TRICHLOROETHENE	U	1.0
78-87-5	1,2 DICHLOROPROPANE	U	1.0
75-27-4	BROMODICHLOROMETHANE	U	1.0
74-95-3	DIBROMOMETHANE	U	1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U	1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U	1.0
630-20-6	1,1,2-TRICHLOROETHANE	U	1.0
142-28-9	1,3 DICHLOROPROPANE	U	1.0
127-18-4	TETRACHLOROETHENE	U	1.0
75-27-4	DIBROMOCHLOROMETHANE	U	1.0
106-93-4	1,2 DIBROMOETHANE	U	1.0
108-90-7	CHLOROBENZENE	U	1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U	1.0
75-25-2	BROMOFORM	U	1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U	1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U	1.0
108-86-1	BROMOBENZENE	U	1.0
95-49-8	2, CHLOROTOLUENE	U	1.0
106-34-4	4, CHLOROTOLUENE	U	1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	1.0
87-68-3	HEXACHLOROBUTADIENE	U	1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U	1.0

MDL - Method Detection Limit

U - Undetected below MDL

COMMENTS:

## QC Spike - 50 ppb std

Filename:F:\DATA1\U010209.RAW

Batch:QCV220W

Date: 1/2/03

CAS #	Analyte	Spike Added	Sample	% Rec	Lower	Upper	Flag
		PPB	Conc		Limits	Limits	
75-71-8	DICHLORODIFLUOROMETHANE	50	44	89	50	150	
74-87-3	CHLOROMETHANE	50	25	51	50	150	
75-01-4	VINYL CHLORIDE	50	51	102	50	150	
74-97-5	BROMOMETHANE	50	54	108	50	150	
75-00-3	CHLOROETHANE	50	45	89	50	150	
75-69-4	TRICHLOROFLOUROMETHANE	50	57	114	50	150	
75-35-4	1,1 DICHLOROETHENE	50	55	111	50	150	
75-09-2	METHYLENE CHLORIDE	50	53	107	50	150	
156-60-5	TRANS-1,2-DICHLOROETHENE	50	55	111	50	150	
75-34-3	1,1 DICHLOROETHANE	50	44	88	50	150	
	2,2-DCPRPA+CIS-1,2DICHLOROE	100	92	92	50	150	
67-66-3	CHLOROFORM	50	45	90	50	150	
74-97-5	BROMOCHLOROMETHANE	50	50	101	50	150	
71-55-6	1,1,1 TRICHLOROETHANE	50	47	94	50	150	
563-58-6	1,1 DICHLOROPROPENE	50	49	98	50	150	
56-23-5	CARBON TETRACHLORIDE	50	49	98	50	150	
107-06-2	1,2 DICHLOROETHANE	50	47	93	50	150	
79-01-6	TRICHLOROETHENE	50	45	90	50	150	
78-87-5	1,2 DICHLOROPROPANE	50	44	88	50	150	
75-27-4	BROMODICHLOROMETHANE	50	46	93	50	150	
74-95-3	DIBROMOMETHANE	50	48	95	50	150	
10061-02-6	CIS 1,3 DICHLOROPROPENE	50	50	99	50	150	
10061-02-6	TRANS 1,3 DICHLOROPROPENE	50	54	107	50	150	
630-20-6	1,1,2-TRICHLOROETHANE	50	52	104	50	150	
142-28-9	1,3 DICHLOROPROPANE	50	46	93	50	150	
127-18-4	TETRACHLOROETHENE	50	49	98	50	150	
75-27-4	DIBROMOCHLOROMETHANE	50	58	117	50	150	
106-93-4	1,2 DIBROMOETHANE	50	53	107	50	150	
108-90-7	CHLOROBENZENE	50	56	112	50	150	
630-20-6	1,1,1,2 TETRACHLOROETHANE	50	55	110	50	150	
75-25-2	BROMOFORM	50	46	92	50	150	
79-34-5	1,1,2,2 TETRACHLOROETHANE	50	45	91	50	150	
96-18-4	1,2,3 TRICHLOROPROPANE	50	44	87	50	150	
108-86-1	BROMOBENZENE	50	43	86	50	150	
95-49-8	2, CHLOROTOLUENE	50	50	100	50	150	
106-34-4	4, CHLOROTOLUENE	50	43	86	50	150	
96-12-8	1,2-DIBROMO-3-CHLOROPROPAN	50	49	98	50	150	
87-68-3	HEXACHLORO BUTADIENE	50	48	96	50	150	
87-61-6	1,2,3 TRICHLOROBENZENE	50	56	113	50	150	

**QC MS/MSD 50PPB Spike**

Filename MS:U010207  
 Filename MSD:U010208  
 Sample ID:U010127

Batch:QCV220W  
 Matrix:WATER

Sample spiked: P5650-07  
 Date: 1/2/03

CAS #	Analyte	Spike		MS Conc		% Rec		MSD Conc		MSD		RPD		Lower		Upper		RPD	
		Added	Conc	Sample	MS Conc	PPB	Flag	MSD	PPB	% Rec	Flag	RPD	Flag	Limits	Limits	RPD	Limits	Limits	
75-71-8	DICHLORODIFLUOROMETHANE	50	0	0	33	66		43	87		26	*	50	150	<20%				
74-87-3	CHLOROMETHANE	50	0	0	21	42	*	24	47	*	12		50	150	<20%				
75-01-4	VINYL CHLORIDE	50	0	0	48	96		57	115		18		50	150	<20%				
74-87-5	BROMOMETHANE	50	0	0	50	101		66	131		26	*	50	150	<20%				
75-00-3	CHLOROETHANE	50	0	0	43	85		48	96		12		50	150	<20%				
75-69-4	TRICHLOROFLOUROMETHANE	50	0	0	50	100		63	126		23	*	50	150	<20%				
75-35-4	1,1 DICHLOROETHENE	50	0	0	47	94		55	110		17		50	150	<20%				
75-09-2	METHYLENE CHLORIDE	50	5	44	79		52	96		19		50	150	<20%					
56-50-5	TRANS-1,2-DICHLOROETHENE	50	0	0	40	80		61	121		41	*	50	150	<20%				
75-34-3	1,1 DICHLOROETHANE	50	0	0	40	80		57	115		35	*	50	150	<20%				
67-56-3	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	100	0	0	81	81		99	99		20		50	150	<20%				
74-97-5	CHLOROFORM	50	0	0	41	82		49	98		17		50	150	<20%				
71-55-6	BROMOCHLOROMETHANE	50	0	0	50	100		50	101		1		50	150	<20%				
563-58-6	1,1,1 TRICHLOROETHANE	50	0	0	45	89		48	97		8		50	150	<20%				
56-23-5	1,1 DICHLOROPROPENE	50	0	0	42	85		49	97		14		50	150	<20%				
107-06-2	CARBON TETRACHLORIDE	50	0	0	46	91		50	100		9		50	150	<20%				
79-01-6	1,2 DICHLOROETHANE	50	0	0	55	110		37	74		39	*	50	150	<20%				
79-87-5	TRICHLOROETHENE	50	0	0	39	78		50	99		24	*	50	150	<20%				
75-27-4	1,2 DICHLOROPROPANE	50	0	0	39	78		46	91		15		50	150	<20%				
74-85-3	BROMODICHLOROMETHANE	50	0	0	47	94		59	118		22	*	50	150	<20%				
10061-02-0	DIBROMOMETHANE	50	0	0	30	60		37	74		21	*	50	150	<20%				
10061-02-0	CIS 1,3 DICHLOROPROPENE	50	0	0	41	82		51	102		21	*	50	150	<20%				
10061-02-0	TRANS 1,3 DICHLOROPROPENE	50	0	0	41	83		57	115		32	*	50	150	<20%				
360-20-6	1,1,2-TRICHLOROETHANE	50	0	0	40	80		60	120		40	*	50	150	<20%				
142-28-9	1,3 DICHLOROPROPANE	50	0	0	38	75		55	110		38	*	50	150	<20%				
127-16-4	TETRACHLOROETHENE	50	0	0	37	74		55	111		40	*	50	150	<20%				
75-27-4	DIBROMOCHLOROMETHANE	50	0	0	42	84		75	149		56	*	50	150	<20%				
106-93-4	1,2 DIBROMOETHANE	50	0	0	46	92		70	141		41	*	50	150	<20%				
108-90-7	CHLOROBENZENE	50	0	0	46	92		61	121		27	*	50	150	<20%				
600-20-6	1,1,1,2 TETRACHLOROETHANE	50	0	0	37	73		50	100		31	*	50	150	<20%				
75-25-2	BROMOFORM	50	0	0	47	94		58	115		20	*	50	150	<20%				
75-34-5	1,1,2,2 TETRACHLOROETHANE	50	0	0	37	74		51	101		31	*	50	150	<20%				
96-13-4	1,2,3 TRICHLOROPROPANE	50	0	0	34	67		47	95		34	*	50	150	<20%				
102-88-1	BROMOBENZENE	50	0	0	31	62		45	90		37	*	50	150	<20%				
95-49-8	2, CHLOROTOLUENE	50	0	0	36	71		50	100		33	*	50	150	<20%				
105-34-4	4, CHLOROTOLUENE	50	0	0	31	62		40	80		25	*	50	150	<20%				
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	50	0	0	35	69		50	99		35	*	50	150	<20%				
97-33-3	HEXACHLOROBUTADIENE	50	0	0	29	58		36	72		21	*	50	150	<20%				
97-51-6	1,2,3 TRICHLOROBENZENE	50	0	0	31	62		41	81		27	*	50	150	<20%				

\* Denotes compound outside control criteria



**CHEMTECH**

284 Sheffield ST. Mountainside, NJ 07092  
Tel: 908-789-8900

**END OF ANALYTICAL RESULTS**

## **APPENDIX B**

# ECOTEST LABORATORIES, INC.

## ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (631) 422-5777 • FAX (631) 422-5770

Email: ecotestlab@aol.com Website: www.ecotestlabs.com  
LAB NO. 226000.00 12/26/02

C.A. Rich Consultants, Incorporated  
17 Dupont Street  
Plainview, NY 11803

ATTN: Eric Weinstock PO#:

SOURCE OF SAMPLE: Utility Manufacturing, Utility 4th Qtr 0+M

SOURCE OF SAMPLE:

COLLECTED BY: Client DATE COL'D: 12/19/02 RECEIVED: 12/19/02  
TIME COL'D: 1300

MATRIX: Air SAMPLE: Utility 12/19/02

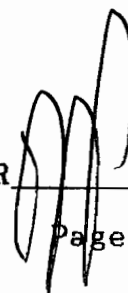
ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Chloromethane	ug/m3	< 50		12/20/02	50	EPA8260
Bromomethane	ug/m3	< 50		12/20/02	50	EPA8260
1,1-Dichloroethane	ug/m3	< 50		12/20/02	50	EPA8260
Vinyl Chloride	ug/m3	< 50		12/20/02	50	EPA8260
Chloroethane	ug/m3	< 50		12/20/02	50	EPA8260
Ethylene Chloride	ug/m3	< 50		12/20/02	50	EPA8260
1,1-Dichloroethane	ug/m3	< 50		12/20/02	50	EPA8260
1,1-Dichloroethane	ug/m3	< 50		12/20/02	50	EPA8260
1,2-Dichloroethane	ug/m3	190		12/20/02	100	EPA8260
Chloroform	ug/m3	< 50		12/20/02	50	EPA8260
1,2-Dichloroethane	ug/m3	< 50		12/20/02	50	EPA8260
1,1-Trichloroethane	ug/m3	710		12/20/02	50	EPA8260
Carbon Tetrachloride	ug/m3	< 50		12/20/02	50	EPA8260
Bromodichloromethane	ug/m3	< 50		12/20/02	50	EPA8260
1,2-Dichloropropane	ug/m3	< 50		12/20/02	50	EPA8260
1,1,3-Dichloropropene	ug/m3	< 50		12/20/02	50	EPA8260
Trichloroethylene	ug/m3	< 50		12/20/02	50	EPA8260
Chlorodibromomethane	ug/m3	< 50		12/20/02	50	EPA8260
1,2-Trichloroethane	ug/m3	< 50		12/20/02	50	EPA8260
1,1,3-Dichloropropene	ug/m3	< 50		12/20/02	50	EPA8260
2-Chloroethvinylether	ug/m3	< 50		12/20/02	50	EPA8260
Chloroform	ug/m3	< 50		12/20/02	50	EPA8260
1,1,2,2-Tetrachloroethane	ug/m3	< 50		12/20/02	50	EPA8260
Tetrachloroethene	ug/m3	< 50		12/20/02	50	EPA8260

cc:

LRL=Laboratory Reporting Limit

REMARKS: Volume sampled: 4 Liters.

DIRECTOR



rn = 45613

NYSDOH ID # 10320

Page 1 of 2

**ECOTEST LABORATORIES, INC.**

**ENVIRONMENTAL TESTING**

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (631) 422-5777 • FAX (631) 422-5770

Email: ecotestlab@aol.com Website: www.ecotestlabs.com  
LAB NO.226000.00 12/26/02

C.A. Rich Consultants, Incorporated  
17 Dupont Street  
Plainview, NY 11803

ATTN: Eric Weinstock PO#:

SOURCE OF SAMPLE: Utility Manufacturing, Utility 4th Qtr 0+M  
SOURCE OF SAMPLE:

COLLECTED BY: Client DATE COL'D:12/19/02 RECEIVED:12/19/02  
TIME COL'D:1300

MATRIX:Air SAMPLE: Utility 12/19/02

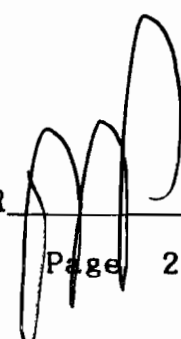
ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Chlorobenzene	ug/m3	< 50		12/20/02	50	EPA8260
1,3 Dichlorobenzene (v)	ug/m3	< 50		12/20/02	50	EPA8260
1,2 Dichlorobenzene (v)	ug/m3	< 50		12/20/02	50	EPA8260
1,4 Dichlorobenzene (v)	ug/m3	< 50		12/20/02	50	EPA8260

cc:

LRL=Laboratory Reporting Limit

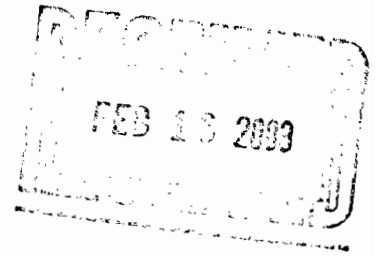
REMARKS: Volume sampled: 4 Liters.  
NIOSH Sorbent tube collection.

DIRECTOR



## **APPENDIX C**

# Premier Environmental Services.



DATA USABILTY SUMMARY REPORT (DUSR)  
OF THE  
UTILITY MANUFACTURING SITE

ORGANIC ANALYSES  
IN AQUEOUS SAMPLES

CHEMTECH CONSULTING GROUP  
MOUNTAINSIDE, NJ

REPORT NUMBER: P5650

February, 2003

Prepared for  
C.A. Rich Consultants, Inc.  
Plainview, New York

Prepared by  
Premier Environmental Services  
2815 Covered Bridge Road  
Merrick, New York 11566  
(516)223-9761

## NYS DEC Data Usability Summary Report

**DATA VALIDATION FOR:** Volatile Organic Analyses

**SITE:** Utility Manufacturing

**CONTRACT LAB:** Chemtech Consulting Group  
Mountainside, New Jersey

**REVIEWER:** Renee Cohen

**DATE REVIEW COMPLETED:** February, 2003

**MATRIX:** Aqueous

The data validation was performed according to the guidelines in the described in the New York State Department of Environmental Conservation, Division of Environmental Remediation, Guidance for the Development of Data Usability Summary Reports (DUSR). In addition the data was been reviewed using the protocol specified in the NYS Analytical Services Protocol ('95).

All data are considered valid and acceptable except those analytes which have been rejected "R" (unusable). Due to various QC problems some analytes may have been qualified with a "J" (estimated), "N" (presumptive evidence for the presence of the material, "U" (non-detect), or "JN" (presumptive evidence for the presence of the material at an estimated value) flag. All actions are detailed on the attached sheets.

Several factors should be noted for all persons using this data. Persons using this data should be aware that no result is guaranteed to be accurate even if it has passed all QC tests. The main purpose of this review is to appropriately qualify outliers and to determine whether the results presented meet the specific site/project criteria for data quality and data use.

This data assessment is for nine (9) aqueous samples, one (1) Field Blank and one (1) Trip Blank sample. The samples were collected on December 19, 2002 and shipped to Chemtech located in Mountainside, New Jersey. The samples were received via overnight service at the laboratory on December 23, 2002. The cooler temperature was within QC limits upon receipt. The samples were analyzed for Volatile Organic Analytes (EPA Method 8021), as specified on the Chain of Custody (COC) documentation.

A cross-reference between Field Sample ID and Laboratory Sample ID is located in Table 1 of this report. A copy of definitions that may be used to qualify data results are located in Appendix A of this report. Copies of qualified data result pages are located in Appendix B of this report and a copy of Chain of Custody (COC) documentation associated with sampling event is located in Appendix C.

# ORGANIC DATA ASSESSMENT

## 1. OVERVIEW:

The nine (9) aqueous, one (1) Field Blank and one (1) Trip Blank sample were analyzed as per the Chain of Custody (COC) documentation. The samples were analyzed using EPA Test Methods for the Evaluation of Solid Waste (SW 846), Method 8021. As per the change order in the data report, the Method 8010 analyte list was to be reported. Proper custody transfer of the samples was documented in the laboratory reports. Cooler temperature was within QC limits. Sample preservation was checked prior to analysis. All samples in this data set were properly preserved.

## 2. HOLDING TIME:

**The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Preserved volatile organic analyses are required to be analyzed within 10 days of validated time of sample receipt (VTSR) in accordance with the NYSDEC ASP, Rev '95. The technical holding time for properly preserved aqueous samples is 14 days from collection.**

The preserved groundwater samples associated with this data set were analyzed within ten (10) days of VTSR.

## 3. SURROGATES:

**All samples are spiked with surrogate compounds prior to sample preparation to evaluate the overall laboratory performance and the efficiency of the analytical technique. If the measured surrogate concentrations are outside the QC limits, qualifiers were applied to the effected samples.**

Each sample was spiked with the surrogate compounds 1,4-Dichlorobutane and Bromochlorobenzene. In house-surrogate recovery limits were utilized by the laboratory. The percent recovery of each surrogate met QC criteria in all field and QC samples associated with each data set.

## 4. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:

**The MS/MSD data are generated to determine the long term precision and accuracy of the analytical method in various matrices. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data. The laboratory used the in-house generated recovery criteria and RPD (precision) data for reporting purposes.**

The laboratory performed aqueous MS/MSD analysis on sample MW-7I. The MS/MSD were spiked with each of the Volatile Organic Compounds reported. The recovery of all analytes met in house QC criteria with the exception of Chloromethane (42%/47%). A number of RPD's did not meet QC criteria. All of the spike recoveries of these analytes met QC criteria.

Data qualification was not made based on the data associated with the MS/MSD sample analysis.



## ORGANIC DATA ASSESSMENT

### 5. BLANK SPIKE ANALYSIS:

The NY ASP protocol requires that a blank spike analysis be performed with each sample batch. The blank spike analysis is used to insure that the analytical system is in control. The laboratory applied in-house recovery limits for each analyte.

The laboratory performed one blank spike analysis with this data set. The sample was spiked with all reported analytes. All spike recoveries in the blank spike sample met QC criteria.

### 6. BLANK CONTAMINATION:

Quality assurance (QA) blanks, such as the method, trip, field, or rinse blanks are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations. Samples are then qualified based on blank contamination when detected.

#### A) Method Blank contamination

Two (2) method blank analyses are associated with this data set. The method blank (V010102) was free from contamination of all analytes with the exception of Methylene Chloride (5.2 ug/L). The Methylene Chloride in samples associated with method blank V010102 has been negated in associated field samples. The method blank (V010203) was free from contamination. Methylene Chloride is a common laboratory contaminant. The concentrations reported in the field samples were within acceptable limits.

Qualified data result pages are located in Appendix B of this report.

#### B) Field Blank contamination

The Field Blank sample contained Methylene Chloride at a concentration of 2.0 ug/l. The Methylene Chloride in the field samples associated with this data set has been negated. Qualified data result pages are located in Appendix B of this report.

#### C) Trip Blank contamination

The Trip Blank sample contained Methylene Chloride at a concentration of 2.2 ug/L. The Methylene Chloride in field samples associated with this data set has been negated. Qualified data result pages are located in Appendix B of this report.

## ORGANIC DATA ASSESSMENT

### 7. CALIBRATION:

**Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument is giving satisfactory daily performance.**

One calibration curve is associated with these sample analyses. The laboratory performed an initial six (6) point multi level calibration using the standards 5 ppb through 75 ppb on January 1, 2002. The %RSD of all compounds met QC criteria with the exception of Dichlorodifluoromethane (30%), Chloromethane (56%), Bromomethane (27%), 1,3-Dichloropropane (21%), 1,2-Dibromomethane (27%) and Bromoform (27%). The correlation coefficient of each of these analytes met QC criteria. Two (2) continuing calibration standards are associated with the samples in this data set. The continuing calibrations standard analyzed 1/2/03 (U010202) met QC criteria for all analytes with the exception of Dichlorodifluoromethane (21%), Chloromethane (25%) and 1,1,2,2-Tetrachloroethane (29%). The continuing calibrations standard analyzed 1/2/03 (U010211) met QC criteria for all analytes with the exception of Dichlorodifluoromethane (28%), Chloromethane (26%), Bromomethane (30%), Bromoform (29%) and 1,1,2,2-Tetrachloroethane (18%).

Due to the %D outlier (>15%), data qualifiers have been added to the associated field samples. These analytes were not detected, therefore, the qualifier "UJ" estimated was added. Qualified data result pages are located in Appendix B of this report.

### 8. COMPOUND IDENTIFICATION:

**Target compounds are identified on the GC by using the analyte's relative retention time (RRT) for qualitative identification. Quantitative concentrations are determined with the use of external standard technique from the initial multilevel calibration curve. Samples associated with this data set were reported from the Hall detector. Compounds were reported from the primary detector that were above the laboratory method detection limit.**

The samples in this data set were analyzed without dilution. All samples were reported in accordance with the cited method. The laboratory reported all positive results above the method detection limits. The correct quantitation and identification criteria were used for all reported analytes.

## ORGANIC DATA ASSESSMENT

### 9. FIELD DUPLICATE ANALYSIS:

Field duplicate sample analysis was performed on sample MW-5 in this data set. A review of the duplicate sample data is presented below.

Sample ID: MW-5 (P5650-4)/MW-5DUP (P5650-9)

<u>Analyte</u>	<u>Result</u> ug/L	<u>Result</u> ug/L	<u>Relative Percent Difference</u> (RPD)
Methylene Chloride	4.5 B	ND	NC

ND denotes not detected  
NC denotes not calculated

Target analytes with the exception of Methylene Chloride are not detected. The Methylene Chloride detected in this sample is most likely attributed to laboratory contamination.

### 10. OVERALL ASSESSMENT:

Analytical QC criteria was met for these analyses. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

Methylene Chloride was detected in a number of the Field samples and QC samples associated with this data set. Methylene Chloride is a common laboratory contaminant. The concentration of Methylene Chloride reported in each of the samples was within the QC criteria allowed by the validation guidelines. The data provided for this data set is acceptable for use, with the noted data qualifiers.

*Premier Environmental Services.*

**TABLE 1**

# Premier Environmental Services.

## CLIENT SAMPLE ID

## LABORATORY SAMPLE ID

MW-1	P5640-1
MW-3	P5640-2
MW-4	P5640-3
MW-5	P5640-4
MW-6	P5640-5
MW-7S	P5650-6
MW-7I	P5650-7
MW-7D	P5650-8
MW-5DUP	P5650-9
MW-7IMS	P5650-10
MW-7IMSD	P5650-11
FIELD BLANK	P5650-12
TRIP BLANK	P5650-13

*Premier Environmental Services.*

**APPENDIX A**

# *Premier Environmental Services.*

## **DATA QUALIFIER DEFINITIONS**

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are unreliable/unuseable. The presence or absence of the analyte cannot be verified.

K - The analyte is present. The reported value may be biased high. The actual value is expected to be lower than reported.

L - The analyte is present. The reported value may be biased low. The actual value is expected to be higher than reported.

UL - The analyte was not detected, and the reported quantitation limit is probably higher than reported.

*Premier Environmental Services.*

**APPENDIX B**



Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-1  
LAB ID: P5650-01  
FILENAME: F:\DATA1\U010121.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U UJ		1.0
74-87-3	CHLOROMETHANE	U UJ		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U UJ		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	3.9 U	B	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
594-20-7/156-59-2	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U UJ		1.0
127-18-4	TETRACHLOROETHENE	2.0		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U UJ		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U UJ		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U UJ		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

B = PRESENT IN THE ASSOCIATED BLANK

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-3  
LAB ID: P5650-02  
FILENAME: F:\DATA1\U010122.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U UJ		1.0
74-87-3	CHLOROMETHANE	U UJ		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U UJ		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	3.0 30 U	<del>BU</del>	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
594-20-7/156-59-2	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U UJ		1.0
127-18-4	TETRACHLOROETHENE	13		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U UJ		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U UJ		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U UJ		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

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Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-4  
LAB ID: P5650-03  
FILENAME: F:\DATA1\U010123.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U	VJ	1.0
74-87-3	CHLOROMETHANE	U	VJ	1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U	VJ	1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	3.9	U B	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
594-20-7/156-59-2	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	2.8		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U	VJ	1.0
127-18-4	TETRACHLOROETHENE	8.6		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U	VJ	1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U	VJ	1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U	VJ	1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

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B = PRESENT IN THE ASSOCIATED BLANK

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-5  
LAB ID: P5650-04  
FILENAME: F:\DATA1\U010124.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U	UJ	1.0
74-87-3	CHLOROMETHANE	U	UJ	1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U	UJ	1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	4.5 U	B	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
594-20-7/156-59-2	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U	UJ	1.0
127-18-4	TETRACHLOROETHENE	U		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U	UJ	1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U	UJ	1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U	UJ	1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

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E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

B = PRESENT IN THE ASSOCIATED BLANK

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-6  
LAB ID: P5650-05  
FILENAME: F:\DATA1\U010125.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U	VJ	1.0
74-87-3	CHLOROMETHANE	U	VJ	1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U	VJ	1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	3.3 U	B	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
594-20-7/156-59-2	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U	VJ	1.0
127-18-4	TETRACHLOROETHENE	5.9		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U	VJ	1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U	VJ	1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U	VJ	1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

B = PRESENT IN THE ASSOCIATED BLANK

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-7S  
LAB ID: P5650-06  
FILENAME: F:\DATA1\U010126.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U	UJ	1.0
74-87-3	CHLOROMETHANE	U	UJ	1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U	UJ	1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	3.6 U	B	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
594-20-7/156-59-2	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U	UJ	1.0
127-18-4	TETRACHLOROETHENE	3.3		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U	UJ	1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U	UJ	1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U	UJ	1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

B = PRESENT IN THE ASSOCIATED BLANK

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-7I  
LAB ID: P5650-07  
FILENAME: F:\DATA1\U010127.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U	VJ	1.0
74-87-3	CHLOROMETHANE	U	VJ	1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U	VJ	1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	4.6 U	B	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
594-20-7/156-59-2	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U	VJ	1.0
127-18-4	TETRACHLOROETHENE	U		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U	VJ	1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U	VJ	1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U	VJ	1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

B = PRESENT IN THE ASSOCIATED BLANK

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-7D  
LAB ID: P5650-08  
FILENAME: F:\DATA1\U010128.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U UJ		1.0
74-87-3	CHLOROMETHANE	U UJ		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U UJ		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	U		1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
594-20-7/156-59-2	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U UJ		1.0
127-18-4	TETRACHLOROETHENE	U		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U UJ		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U UJ		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U UJ		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

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E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

B = PRESENT IN THE ASSOCIATED BLANK



Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: MW-5DUP  
LAB ID: P5650-09  
FILENAME: F:\DATA1\U010210.RAW  
BATCH: LB22149

MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U VJ		1.0
74-87-3	CHLOROMETHANE	U VJ		1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U VJ		1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	U		1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
594-20-7/156-59-2	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U VJ		1.0
127-18-4	TETRACHLOROETHENE	U		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U VJ		1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U VJ		1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U VJ		1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

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B = PRESENT IN THE ASSOCIATED BLANK

Chemtech

GC Volatiles  
DETECTOR: HALLTabulated Analytical Report  
Method 8010CLIENT: RICH CONSULTANTS  
PROJECT: UTILITY  
SAMPLE ID: FIELDBLANK  
LAB ID: P5650-12  
FILENAME: F:\DATA1\U010205.RAW  
BATCH: LB22149MATRIX: AQUEOUS  
DATE ANALYZED: 1/2/03  
ANALYST: PHM  
DILUTION: 1  
PROJECT#: P5650

CAS #                      COMPOUNDS                      RESULTS (ug/L)                      QUALIFIERS                      MDL (ug/L)

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U	UJ	1.0
74-87-3	CHLOROMETHANE	U	UJ	1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U	UJ	1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	2.0	U	1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
594-20-7/156-59-2	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U	UJ	1.0
127-18-4	TETRACHLOROETHENE	U		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U	UJ	1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U		1.0
75-25-2	BROMOFORM	U	UJ	1.0
79-34-5	1,1,1,2,2 TETRACHLOROETHANE	U	UJ	1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

B = PRESENT IN THE ASSOCIATED BLANK

Tabulated Analytical Report  
Method 8010

CLIENT: RICH CONSULTANTS  
 PROJECT: UTILITY  
 SAMPLE ID: TRIPBLANK  
 LAB ID: P5650-13  
 FILENAME: F:\DATA1\U010206.RAW  
 BATCH: LB22149

MATRIX: AQUEOUS  
 DATE ANALYZED: 1/2/03  
 ANALYST: PHM  
 DILUTION: 1  
 PROJECT#: P5650

CAS #	COMPOUNDS	RESULTS (ug/L)	QUALIFIERS	MDL (ug/L)
75-71-8	DICHLORODIFLUOROMETHANE	U	UJ	1.0
74-87-3	CHLOROMETHANE	U	UJ	1.0
75-01-4	VINYL CHLORIDE	U		1.0
74-97-5	BROMOMETHANE	U	UJ	1.0
75-00-3	CHLOROETHANE	U		1.0
75-69-4	TRICHLOROFLOUROMETHANE	U		1.0
75-35-4	1,1 DICHLOROETHENE	U		1.0
75-09-2	METHYLENE CHLORIDE	2.2		1.0
156-60-5	TRANS-1,2-DICHLOROETHENE	U		1.0
75-34-3	1,1 DICHLOROETHANE	U		1.0
594-20-7/156-59-2	2,2-DCPRPA+CIS-1,2DICHLOROETHENE	U		2.0
67-66-3	CHLOROFORM	U		1.0
74-97-5	BROMOCHLOROMETHANE	U		1.0
71-55-6	1,1,1 TRICHLOROETHANE	U		1.0
563-58-6	1,1 DICHLOROPROPENE	U		1.0
56-23-5	CARBON TETRACHLORIDE	U		1.0
107-06-2	1,2 DICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
78-87-5	1,2 DICHLOROPROPANE	U		1.0
75-27-4	BROMODICHLOROMETHANE	U		1.0
74-95-3	DIBROMOMETHANE	U		1.0
10061-02-6	CIS 1,3 DICHLOROPROPENE	U		1.0
10061-02-6	TRANS 1,3 DICHLOROPROPENE	U		1.0
630-20-6	1,1,2-TRICHLOROETHANE	U		1.0
142-28-9	1,3 DICHLOROPROPANE	U	UJ	1.0
127-18-4	TETRACHLOROETHENE	U		1.0
75-27-4	DIBROMOCHLOROMETHANE	U		1.0
106-93-4	1,2 DIBROMOETHANE	U	UJ	1.0
108-90-7	CHLOROBENZENE	U		1.0
630-20-6	1,1,1,2 TETRACHLOROETHANE	U	B	1.0
75-25-2	BROMOFORM	U	UJ	1.0
79-34-5	1,1,2,2 TETRACHLOROETHANE	U	UJ	1.0
96-18-4	1,2,3 TRICHLOROPROPANE	U		1.0
108-86-1	BROMOBENZENE	U		1.0
95-49-8	2, CHLOROTOLUENE	U		1.0
106-34-4	4, CHLOROTOLUENE	U		1.0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
87-61-6	1,2,3 TRICHLOROBENZENE	U		1.0

MDL = METHOD DETECTION LIMIT

U =UNDETECTED BELOW MDL

D = DILUTION

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

B = PRESENT IN THE ASSOCIATED BLANK

Premier Environmental Services.

APPENDIX C



# CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
 (908) 789-8900 Fax (908) 789-8922  
 www.chemtech.net

MTEC B NC

P56.50

CHEMTECH QUOTE NO.:

### CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: CA RICH CONSULTANTS, INC  
 ADDRESS: 17 DURENT STREET  
 CITY: PLAINVIEW STATE: NY ZIP: 11803  
 ATTENTION: MICHAEL YASSER

### PROJECT INFORMATION

PROJECT NAME: UTILITY MANUFACTURING  
 PROJECT NO.: UTILITY LOCATION, PTK DIM  
 PROJECT MANAGER: ERIC WEINSTEIN  
 E-MAIL:

### BILLING INFORMATION

BILL TO: CA RICH CONSULTANTS  
 ADDRESS: 17 DURENT STREET  
 CITY: PLAINVIEW STATE: NY ZIP: 11803  
 ATTENTION: MIKE YASSER PHONE: 516.576.8844

### DATA TURNAROUND INFORMATION

FAX: \_\_\_\_\_ DAYS \*  
 HARD COPY: \_\_\_\_\_ DAYS \*  
 EDD: \_\_\_\_\_ DAYS \*  
 \* TO BE APPROVED BY CHEMTECH  
 \*\* NORMAL TURNAROUND TIME - 14 DAYS

### DATA DELIVERABLE INFORMATION

RESULTS ONLY  USEPA CLP  
 RESULTS + QC  NY'S ASP "B"  
 NJ REDUCED  NY'S ASP "A"  
 NJ CLP  EDD  
 EDD FORMAT:

### ANALYSIS

PHONE: 516.576.8844 FAX: 516.576.8844  
 ANALYSIS: *HAZARDOUS WASTE*

CHEMTECH SAMPLE ID	PROJECT IDENTIFICATION
1	MW-1
2	MW-3
3	MW-4
4	MW-5
5	MW-6
6	MW-7J
7	MW-7E
8	MW-7D

SAMPLE MATRIX	SAMPLE TYPE	GRAMS	DATE	TIME	SAMPLE COLLECTION	# OF BOTTLES
WATER	✓	✓	12/19	10:55	✓	2
				11:15	✓	2
				11:25	✓	1
				13:15	✓	2
				14:10	✓	2
				13:55	✓	2
				14:25	✓	2
				15:10	✓	2

PRESERVATIVES	1	2	3	4	5	6	7	8	9
A									
1									
2									
3									
4									
5									
6									
7									
8									
9									

### COMMENTS

← Specify Preservatives  
 A - HCl B - HNO<sub>3</sub>  
 C - H<sub>2</sub>SO<sub>4</sub> D - NaOH  
 E - ICE F - Other

### SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1. J. B. WE	12/19/2002	1.	
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
2.		2.	
RELINQUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY:	DATE/TIME:
3. JPS	12/23/02	3. Sunny. Perty	10:00

Conditions of bottles or coolers at receipt:  Compliant  Non-Compliant  Temp. of Cooler 4.5  
 MeOH extractions requires an additional 4oz. jar for percent solid.  
 Comments:

Shipped Via: Client  Hand Delivered  Overnight   
 Chemtech  Picked Up  Overnight   
 Page 1 of 2



**CHAIN OF CUSTODY RECORD**

284 Sheffield Street, Mountainside, NJ 07092  
 (908) 789-8900 Fax (908) 789-8922  
 www.chemtech.net

CHEMTECH JOB NO.: **PS650**  
 CHEMTECH QUOTE NO.:

**BILLING INFORMATION**

**PROJECT INFORMATION**

**CLIENT INFORMATION**

REPORT TO BE SENT TO:

COMPANY: **CA RICH CONSULTANTS**  
 ADDRESS: **17 DURENT STREET**  
 CITY: **PLAINVIEW** STATE: **NY** ZIP: **11803**  
 ATTENTION: **MICHAEL YASSER**  
 PHONE: **516.576.8844** FAX: **516.576.0083**

PROJECT NAME: **UTILITY MANUFACTURING**  
 PROJECT NO.: **UTILITY UPGRADE DIM**  
 PROJECT MANAGER: **ERIC WEINSTEIN**  
 E-MAIL:  
 PHONE: **516.576.8844** FAX: **516.576.0083**

BILL TO: **CA RICH CONSULTANTS**  
 ADDRESS: **17 DURENT STREET**  
 CITY: **PLAINVIEW** STATE: **NY** ZIP: **11803**  
 ATTENTION: **MIKE YASSER** PHONE: **516.576.8844**

**DATA TURNAROUND INFORMATION**  
 DAYS \* \_\_\_\_\_  
 DAYS \* \_\_\_\_\_  
 DAYS \* \_\_\_\_\_  
 \* TO BE APPROVED BY CHEMTECH  
 \*\* NORMAL TURNAROUND TIME - 14 DAYS

**DATA DELIVERABLE INFORMATION**  
 RESULTS ONLY  
 RESULTS + QC  
 NJ REDUCED  
 NJ CLP  
 EDD FORMAT:  
 USEPA CLP  
 NYS ASP "B"  
 NYS ASP "A"  
 EDD

**ANALYSIS**  
 1 2 3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	DATE	TIME	OR BOTTLES	COMMENTS
9	MW-5 (DUP)	WATER	✓	12/19	1315	2	
10	MW-7 I (MS)	↓	↓	1425	↓	↓	
11	MW-7 I (MS)	↓	↓	1425	↓	↓	
12	FIELD BLANK	↓	↓	1350	↓	↓	
13	TRIP BLANK	↓	↓				
6.							
7.							
8.							

PRESERVATIVES	1	2	3	4	5	6	7	8	9
A									

← Specify Preservatives  
 A - HCl B - HNO<sub>3</sub>  
 C - H<sub>2</sub>SO<sub>4</sub> D - NaOH  
 E - ICE F - Other

**SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY**

RELINQUISHED BY SAMPLER: **10. P. JANE** DATE/TIME: **12/19/02** RECEIVED BY: \_\_\_\_\_  
 RELINQUISHED BY: \_\_\_\_\_ DATE/TIME: \_\_\_\_\_ RECEIVED BY: \_\_\_\_\_  
 RELINQUISHED BY: **VRS** DATE/TIME: **12/23/02** RECEIVED FOR LAB BY: **S. S. S.**

Conditions of bottles or coolers at receipt:  Compliant  Non-Compliant Temp. of Cooler **4'S**  
 MeOH extractions requires an additional 4oz. jar for percent solid.  
 Comments:  
 Shipped Via: Client  Hand Delivered  Overnight  Overnight   
 Chemtech  Picked Up  Overnight   
 Page **2** of **2** Shipment Complete  Yes  No

## Record Of Communication Login Change Form

### Internal Communication

<b>Order Number:</b> P5650	<b>Today's Date:</b> 01/10/03
<b>Client:</b> CA Rich	<b>Sample Date:</b> 12/19/02
<b>Client Contact:</b> Mike Yager	<b>Form Initiated by:</b> <del>Kurt Hummler</del> <i>DAVELLE JOHNSON</i>
	<b>Project Manager</b> Kurt Hummler
<b>General Comments/Special Instructions:</b> Report 8010 List	

Call initiated by:  Client  Chemtech

#### Login Changes

Sample Number	Add Test	Delete Test	Change TAT

Signature *Davelle Johnson* Date 1.10.03