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December 9, 2009

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Mr. Payson Long
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, NY 12233-7013

Re: Active Industrial Uniform Site (Site No. 1-52-125)

D&B Work Assignment No. D004446-01

Quarterly Report No. 18

April 1, 2009 through June 30, 2009

D&B No. 2578

Dear Mr. Long:

The purpose of this letter is to summarize the performance of the groundwater extraction and treatment system for the Active Industrial Uniform Site, located at 63 West Montauk Highway in the Village of Lindenhurst, Suffolk County, New York (see Attachment A, Figure 1), for the period of April 1, 2009 through June 30, 2009. Presented below is a summary of system operations during the quarter, as well as the results of sampling performed in accordance with the work plan for the referenced work assignment.

# **Groundwater Extraction and Treatment System Operations**

During this reporting period, on-site extraction well RW-1 operated at an average rate of approximately 71 gallons per minute (gpm) and off-site extraction well RW-2 operated at an average rate of approximately 82 gpm. The increased performance of RW-1 as compared to the previous quarter (28.4 gpm) was due to well rehabilitation activities completed on extraction well RW-1 on April 27, 2009 through May 4, 2009 by Subsurface Technologies using the proprietary Aqua Freed process. The well rehabilitation activities began with the collection of an initial depth to water level measurement and specific capacitance test. The extraction well pump, motor and riser piping were then removed from the well and a video of the inside of the well was completed to document the conditions of the extraction well casing and screen prior to the initiation of the rehabilitation treatment. The Aqua Freed process was then initiated by injecting gaseous carbon dioxide, followed by liquid carbon dioxide, into the extraction well casing. Finally, the extraction well was mechanically redeveloped using both surging and airlift methods.

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Following the well rehabilitation, a post-treatment video was completed to document the conditions of the extraction well casing and screen. A new, "as-is" replacement extraction well pump and motor were installed in extraction well RW-1 by Systematic Technologies. A final specific capacitance test was also completed to record post-treatment well yield conditions. A photographic log of the completed redevelopment activities is included in Attachment B. The pretreatment and post-treatment specific capacitance test results are provided in Attachment C. Extraction well RW-1 was then set at an extraction rate of approximately 90 gallons per minutes, which is within the required flow rate range of 80 to 100 gpm, as specified in the Active Industrial Uniform Site Contract Documents.

All development water was contained on-site in order to allow for the suspended solids to settle out. Subsequent to settling, the water was then introduced into the groundwater extraction and treatment system for treatment and the sediment was transferred to 55-gallon drums, sampled for waste characterization purposes and properly transported and disposed of at Veolia ES Technical Solutions, LLC, the approved waste disposal facility. Waste characterization data is provided in Attachment D. A copy of the waste manifest is provided in Attachment E.

During this period, approximately 18,847,469 gallons of treated groundwater was discharged to Little Neck Creek. Note that the groundwater extraction system was inoperative for approximately 166 hours, due to five system alarm conditions (high level air stripper #1 and high level building sump), two non-routine maintenance events (Aqua Freed application and repair of the effluent filter). Note that a leak was noted in one of several rust spots on the effluent filter, which caused the high-level building sump alarm condition. This leak was repaired during a non-routine maintenance event. However, in order to ensure this problem does not occur again, it is recommended to replace the effluent filter. In addition, one routine maintenance event (blower maintenance) occurred during this reporting period. A summary of system downtime is provided in Attachment F. Copies of system maintenance reports, prepared by Systematic Technologies, Inc., are provided in Attachment G.

# **Groundwater Extraction and Treatment System Sampling (Aqueous)**

Monthly groundwater samples were collected from the combined influent sample tap (COMB-INF) and from the treatment system discharge sample tap (COMB-EFF) on April 24, May 14 and June 24, 2009. Each sample was analyzed for volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260. The samples collected from the combined influent sample tap were also analyzed for Target Analyte List (TAL) metals by NYSDEC 6/00 Analytical Services Protocol (ASP) Method ILMO5.4 and for pH by Method SM 4500.

Quarterly groundwater samples were collected from both extraction well influent sample taps (RW-1 and RW-2), the sample tap located between the two air strippers (AS-MID) and from the treatment system effluent sample tap on June 24, 2009. Each sample was analyzed for VOCs by USEPA Method 8260. The treatment system effluent sample was also analyzed for TAL metals by NYSDEC 6/00 ASP Method ILMO5.4.

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Semiannual groundwater samples were collected from the treatment system discharge sample tap on June 24, 2009. The samples were analyzed for pH by Method SM 4500, chemical oxygen demand (COD) by Method SM 5220D, total suspended solids (TSS) by Method SM 2540D and total dissolved solids (TDS) by Method SM 2540C. In accordance with discharge requirements, one grab sample was also collected from the treatment system discharge sample tap and field analyzed for pH, temperature, turbidity, conductivity, dissolved oxygen and total chlorine.

All sample results are summarized in Attachment H.

Based on the influent groundwater sample results collected from RW-1 and RW-2, RW-1 exhibited concentrations of cis-1,2-dichloroethene (cis-1,2-DCE) (120 ug/l), tetrachloroethene (PCE) (130 ug/l) and trichloroethene (TCE) (560 ug/l), above their respective Class GA standards of 5.0 ug/l, while RW-2 did not exhibit concentrations of contaminants above Class GA standards or guidance values. Note that RW-2 exhibited detections of 1,1-dichloroethane (1.0 ug/l), methyl-tert butyl ether (MTBE) (7.3 ug/l), cis-1,2-DCE (3.6 ug/l) and PCE (2.8 ug/l) below their respective Class GA groundwater standard or guidance value of 5.0 ug/l, 10.0 ug/l, 5.0 ug/l and 5.0 ug/l. When compared to the Quarter 17 sampling results from April 1, 2009, the RW-1 influent total VOCs decreased from 330 ug/l to 306 ug/l and the RW-2 influent total VOCs decreased from 20.0 ug/l to 14.7 ug/l. Manganese, sodium and pH were also detected above their respective NYSDEC Class GA groundwater standard in both extraction wells and iron was detected above its respective Class GA groundwater standard in RW-2.

Based on the influent groundwater sample results, COMB-INF total VOCs ranged from 89.1 ug/l detected on April 24, 2009 to a maximum concentration of 153 ug/l detected on June 24, 2009, with cis-1,2-DCE, TCE and PCE concentrations detected above their respective NYSDEC Class GA groundwater standard of 5.0 ug/l during all sampling events. In addition, MTBE was detected in all COMB-INF samples collected this reporting period; however, MTBE was detected at concentrations below its respective NYSDEC Class GA groundwater guidance value of 10.0 ug/l in all COMB-INF samples. COMB-INF iron, manganese, sodium and pH were also detected above their respective NYSDEC Class GA groundwater standards in all COMB-INF samples, with the exception of iron on May 14, 2009.

The sample results from the air stripper midfluent exhibited concentrations of cis-1,2-DCE and MTBE of 3.1 ug/l and 3.2 ug/l, below their NYSDEC Class GA groundwater standards of 5.0 ug/l and 10.0 ug/l, respectively. Based on the results, the first air stripper is effectively removing the majority of the site-specific VOCs from the influent groundwater and effectively removing MTBE at a rate of approximately 85%.

The sample results from the air stripper discharge are compared to the NYSDEC site-specific effluent limits. Based on the effluent sample results, COMB-EFF VOCs, metals, TSS and pH were detected below NYSDEC site-specific effluent limits. Note that COMB-EFF samples did exhibit concentrations of chloroform (1.6 ug/l), detected on April 24, 2009 and MTBE (1.6 ug/l and 1.5 ug/l), detected on April 14 and June 24, 2009, respectively. However, the concentrations were all well below their respective

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Class A surface water standards of 7.0 ug/l and 10.0 ug/l. Note that a site-specific effluent limit is not in place for either contaminant.

Approximately 8.38 pounds of total VOCs were removed from the extracted groundwater during this reporting period and approximately 1,201 pounds of total VOCs have been removed since start-up of the system. The average total VOC removal efficiency for this quarter was approximately 96 percent. A summary of the extraction and treatment system performance results for this period is provided in Attachment I.

# Groundwater Extraction and Treatment System Sampling (Air)

Air samples were collected from the vapor phase carbon adsorption system influent sample tap (VPCV-INF), the sample tap located between the carbon vessels (VPCV-MID) and the effluent sample tap (VPCV-EFF) on April 24, May 14 and June 24, 2009.

The results of the vapor phase carbon adsorption system discharge samples (VPCV-EFF) are compared to the NYSDEC site-specific effluent limits. Sample results are provided in Attachment H. All air discharge results were below NYSDEC site-specific effluent limits for the period.

# **Groundwater Quality Data**

The network of groundwater monitoring wells was sampled to determine groundwater quality at, and in the vicinity of, the site. Samples were collected from eight on-site monitoring wells (MW-101 through MW-108) and three off-site monitoring wells (MW-109, MW-111 and MW-2S) on June 23, 2009. Note that monitoring well MW-110 (originally proposed to be sampled as part of D&B's work assignment) could not be located and has reportedly been paved over since D&B began groundwater sampling activities in 2005. As a result, this monitoring well was not sampled. Note that monitoring well MW-2S was not originally sampled as part of D&B's work assignment but was initially sampled in November 2007 as part of a Vapor Intrusion Investigation completed by the NYSDEC and will now continue to be sampled as part of D&B's work assignment as per the request of the NYSDEC. The locations of the on-site monitoring wells are shown in Figure 2, provided in Attachment A. The locations of the off-site monitoring wells are shown in Figure 3, provided in Attachment A. Each groundwater sample was analyzed for VOCs by USEPA Method 8260 and for pH by USEPA Method 9040. Groundwater sample results are summarized in Attachment F and are compared to the NYSDEC Class GA groundwater standards and guidance values. A copy of the groundwater sampling results for MW-2S from the November 2007 Vapor Intrusion Investigation is included in Attachment J.

Concentrations of total VOCs detected in the on-site monitoring wells ranged from non-detect in groundwater monitoring well MW-101 to a maximum concentration of 815 ug/l detected in groundwater monitoring well MW-106, located in the southeast corner of the site. Five on-site monitoring wells (MW-103, MW-104, MW-105, MW-106 and MW-107) exhibited one or more of the following VOCs at concentrations above their respective Class GA standards or guidance values; cis-1,2-DCE, PCE, TCE and VC. The maximum concentrations of cis-1,2-DCE (540 ug/l), TCE (75.0 ug/l) and VC (20.0 ug/l)

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were detected in groundwater monitoring well MW-106, located in the southeast corner of the site. The maximum concentration of PCE (760 ug/l) was detected in groundwater monitoring well MW-104, located on the western portion of the site. Note that VOCs were not detected at concentrations exceeding their respective Class GA standards and guidance values in on-site monitoring wells MW-101, MW-102 or MW-108.

Concentrations of cis-1,2-DCE (220 ug/l) and VC (2.2 ug/l) were detected above their respective Class GA groundwater standards of 5.0 ug/l and 2.0 ug/l, respectively, in off-site groundwater monitoring well MW-2S, located on the corner of Thompson Avenue and Lane Street. Concentrations of cis-1,2-DCE (2.1 ug/l), 1,1-dichloroethane (1.2 ug/l), TCE (1.6 ug/l), MTBE (2.1 ug/l) and PCE (2.3 ug/l) were detected in off-site monitoring well MW-109; however, these VOCs were not detected at concentrations exceeding their respective Class GA standards and guidance values. VOCs were not detected in off-site monitoring well MW-111.

Attachment K includes graphs which summarize historical concentrations of total VOCs, cis-1,2-DCE, PCE, TCE and VC detected in the on-site and off-site monitoring wells from June 2007 through June 2009. Note that the greatest concentrations of VOCs have primarily been detected above their respective standards in on-site monitoring wells MW-104 and MW-106, and separate graphs have been provided for these two monitoring wells. Off-site, concentrations of these compounds have historically been detected below their respective groundwater standards in MW-109 and MW-111. A comparison of the concentrations of VOCs detected in MW-2S since November 2007 continues to show a general decrease in VOC concentrations.

## **Data Validation**

The data packages submitted by Mitkem Corporation (Mitkem) have been reviewed for completeness and compliance with NYSDEC ASP Quality Assurance/Quality Control (QA/QC) requirements. Mitkem is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory. The analysis of the air samples were completed by Con-Test Analytical Laboratory. Con-Test is a NYSDOH ELAP-certified laboratory. All sample results have been deemed valid and usable for environmental assessment purposes.

Data Validation Checklists are presented in Attachment L.

## **Conclusions**

Based on the results of performance monitoring conducted during the period, we offer the following conclusions:

- The results of the system influent samples show that extraction wells RW-1 and RW-2 continue to capture VOC-contaminated groundwater.
- Rehabilitation of extraction well RW-1 was completed in April 2009, which restored the extraction well yield to within the contract-required flow rate range of 80 gpm to 100 gpm, as

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specified in the Active Industrial Uniform Site Contract Documents. Note that the average flow rate of 71 gpm above includes flow rate data prior to the well rehabilitation activities completed during this reporting period.

- Extraction well RW-2 is currently pumping at an average rate of 84.7, which is within the contract-required flow rate range of 80 gpm to 100 gpm, as specified in the Active Industrial Uniform Site Contract Documents.
- The results of system effluent (COMB-EFF) samples show that the air stripper towers are effectively removing the captured VOCs to concentrations below the NYSDEC site-specific effluent limits.
- The results of vapor discharge samples show that the vapor phase carbon vessels are effectively removing VOCs to concentrations below their respective NYSDEC site-specific discharge limits.
- Five of the eight on-site monitoring wells exhibit at least one VOC at concentrations in exceedance of their respective NYSDEC Class GA groundwater standards and guidance values.
- MW-2S exhibited cis-1,2-DCE and VC at concentrations in exceedance of their respective Class GA standards. However, off-site monitoring well MW-109 did not exhibit VOCs at concentrations in exceedance of the NYSDEC Class GA standards and guidance values, and off-site monitoring well MW-111 did not exhibit detectable concentrations of VOCs.
- Note that no new supply wells have been installed on the Active Industrial property and, based on visual inspection of the immediate area, no new schools or parks have been constructed in the vicinity or downgradient of the Active Industrial property.
- The Class GA Groundwater Standards and Guidance Values and the NYSDEC site-specific
  effluent limits have not changed since system start-up in December 2001. A new DER-10
  document, dated December, 2002, has been implemented since the March 1998 ROD was
  issued.
- The toxicity data, cleanup levels and remedial action objectives, as defined in the March 1997 Record of Decision, remain unchanged.

# Recommendations

Based on the results of performance monitoring completed during this reporting period, we provide the following recommendations:

- Continue operation of the groundwater extraction and treatment system to minimize downgradient migration of site-related contaminants currently being captured by the system.
- In order to replace groundwater monitoring well MW-110, which was paved over prior to initiation of this work assignment, and to better monitor the off-site plume location and

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concentration (and, therefore, overall system effectiveness), we recommend the installation of three new off-site monitoring wells southwest of the site and along Little Neck Creek. Note that additional details and a figure depicting the proposed well locations was provided in the draft Active Industrial Periodic Review Report.

- Continue to closely monitor VOC concentrations in off-site monitoring well MW-2S in order to ensure that the groundwater extraction and treatment system is capturing all VOCs which have the potential to migrate off-site. Note that extraction well RW-1 has been pumping at a reduced flow rate due to iron fouling of the well screen. As stated above, following well rehabilitation activities, extraction well RW-1 is now pumping at a flow rate within the contract-required flow rate range of 80 gpm to 100 gpm. As such, RW-1's radius of influence has been restored to within design specification; therefore, the VOC concentrations observed in off-site monitoring well MW-2S will likely decrease in the upcoming reporting periods.
- It is recommended to replace the effluent filter in order to prevent a recurrence of the leak noted in this reporting period.

Please do not hesitate to contact me at (516) 364-9890, Ext. 3094, if you have any questions.

Very truly yours,

5 Cophe lase

Stephen Tauss Project Manager

SET/KM/PM/jmy

Attachments cc: R. Walka (D&B)

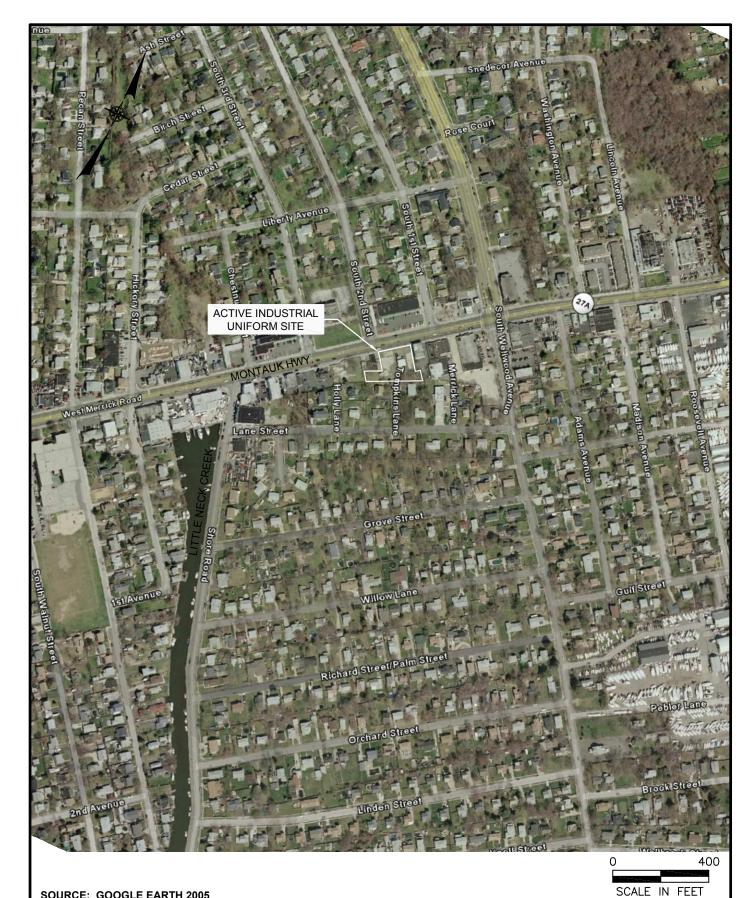
P. Martorano (D&B)

F. DeVita (D&B)

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# ATTACHMENT A

**FIGURES** 



**SOURCE: GOOGLE EARTH 2005** 



**ACTIVE INDUSTRIAL UNIFORM SITE** VILLAGE OF LINDENHURST, NEW YORK

SITE LOCATION MAP



ACTIVE INDUTRIAL UNIFORM SITE VILLAGE OF LINDENHURST, NEW YORK

LITTLE NECK CREEK

A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

**OFF-SITE MONITORING WELL LOCATION MAP** 

LITTLE NECK CREEK

# ATTACHMENT B

# RW-1 REDEVELOPMENT PHOTOGRAPHIC LOG



Rig/Hoist used during RW-1 well rehabilitation.



Condition of RW-1 pump/motor prior to well rehabilitation.



5 ½ foot pitless



Pitless and RW-1 influent line connected.



Camera used to take a video log of RW-1.



Equipment used to record video log of RW-1.



Brush used to clean well casing and screen.



Swab used during pump and swab activities.



CO<sub>2</sub> tank and equipment used during injection activities.



Well connection during CO<sub>2</sub> injection activities.



Grunfos pump/motor installed post well rehabilitation.



Casing installed around pump/motor before installation.

# ATTACHMENT C

RW-1 REDEVELOPMENT SPECIFIC CAPACITANCE TEST RESULTS

# Dvirka & Bartilucci Lindenhurst, NY

	Well #RW-1 ~	Pre Treatment ~	- April 27, 2	009
Discharge Rate (gpm)	Duration (Minutes)	Pumping Level (ft bg.)	Drawdown (ft)	Specific Capacity (gpm/ft)
		7.3		
20	60	16.1	8.8	2.27
40	30	33.3	26	1.54

<sup>\*</sup> Ran Out of Water

1	Well #RW-1 ~	Post Treatment	~ May 4, 20	009
Discharge Rate (gpm)	Duration (Minutes)	Pumping Level (ft bg.)	Drawdown (ft)	Specific Capacity (gpm/ft)
		9.75		
20	30	10.05	0.3	66.67
40	30	10.5	0.75	53.33
80	30	11.5	1.75	45.71
120	30	12.65	2.9	41.38



# **PUMP TEST**

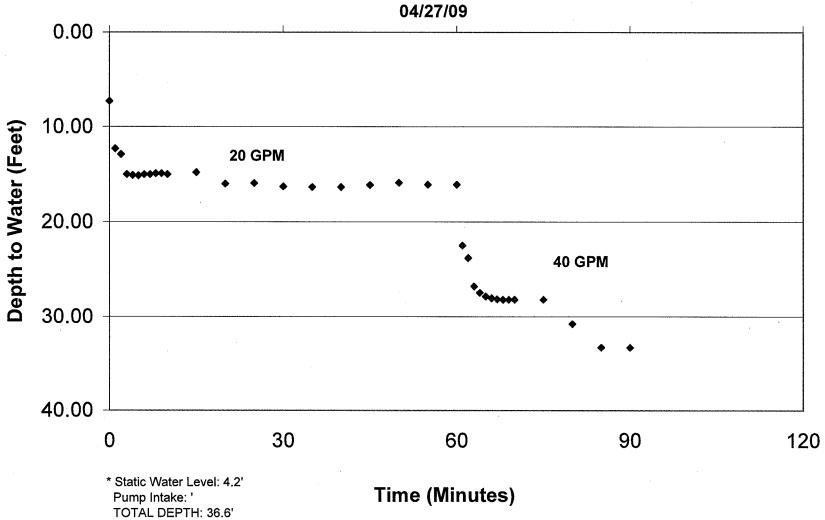
# Pre-Treatment

CHNOLOGIES DATE:	04/27/09	WELL#/NAME:	RW-1	DURATION OF TEST	: 1.5 hrs
CLIENT:		Dvirka & Bartilucci	LOCATION:	Lindenhurst	t, NY
WELL DIAMETER:	8"	<b>DEPTH:</b> 36' 6"	SCREEN DIAMETER:	8" LENGTH	l: <u>25'</u>
SWL:	4' 2"	DISCHARGE PIPE:	3"	METHOD OF MEASUREMENT:	Meter
PUMP / MOTOR INFO:	7 1/2 hp			PUMP SETTING	: Intake 34'
COMMENTS:					•

	Elapsed Time	Depth to Water	Drawdown	Pumping Rate	Pressure	
Time	(min)	(ft btomp)	(feet)	(gpm)	(psi)	Notes
2:40	0	7.30		20		
2:41	1	12.30	5.00	20		B-18.6 R-18.1 Y-17.7
2:42	2	12.90	5.60	20		Megs 4.5
2:43	3	15.00	7.70	20		Resistance .5
2:44	4	15.10	7.80	20	,	
2:45	5	15.13	7.83	20		
2:46	6	15.00	7.70	20		
2:47	7	15.00		20	42	
2:48	8	14.90	7.60	20		
2:49	9	14.90	7.60	20		
2:50	10			20		
2:55	15	14.80		20		
3:00	20	16.00	8.70	20		
3:05	25	15.95		20		
3:10	30			20		
3:15	35		9.05	20		
3:20	40	16.37	9.07	20		
3:25	45	16.15	8.85	20		
3:30	50	15.90	8.60	20		
3:35	55	16.10	8.80	20	42	
3:40	60	16.10	8.80	20		
3:41	61	22.50	15.20	40	38	
3:42	62	23.80	16.50	40		
3:43	63	26.80	19.50	40		
3:44	64	27.47	20.17	40		

	Elapsed Time	Depth to Water	Drawdown	Pumping Rate	Pressure	
Time	(min)	(ft btomp)	(feet)	(gpm)	(psi)	Notes
3:45				40		
3:46		28.05		40		
3:47	67	28.15		40		
3:48		28.20		40		
3:49		28.20		40		
3:50				40		
3:55				40		
4:00				40		
4:05		33.30	26.00	40		
4:10	90	33.30	26.00	40		Out of Water

# Dvirka & Bartilucci Lindenhurst, NY Well #RW-1 Step-Rate Pumping Test Pre Rehabilitation





# **PUMP TEST**

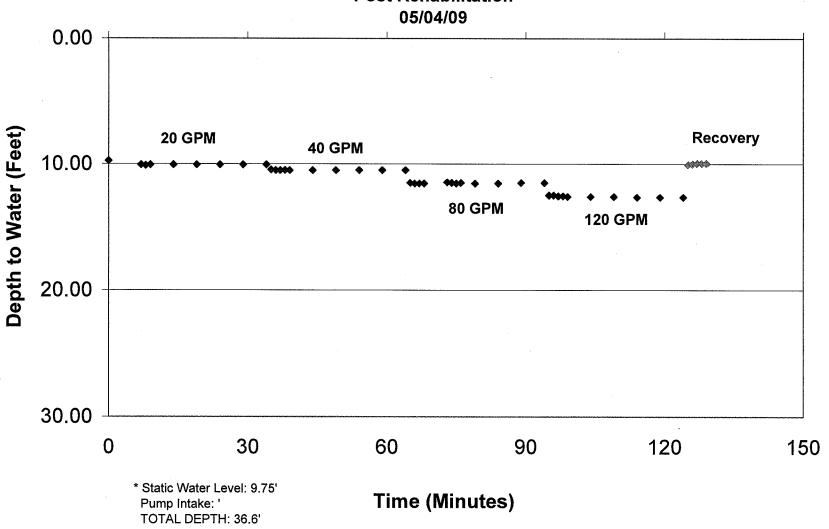
# Post-Treatment

CHNOLOGIES DATE	: 05/04/09	WELL # / NAME:	RW-1	DURATION OF TES	ST: 2 hrs
CLIENT	•	Dvirka & Bartilucci	LOCATION:	Lindenhur	rst, NY
WELL DIAMETER	:8"	DEPTH: 36' 6"	SCREEN DIAMETER:	8" LENGT	TH: 25'
SWL	: 9.75'	DISCHARGE PIPE:	3"	METHOD OF MEASUREMENT	Γ: Meter
PUMP / MOTOR INFO	: <u>7 1/2 hp</u>			PUMP SETTIN	IG: Intake 34'
COMMENTS			F1.5 - 1.0 - 1.0 - 1.0 - 1.0 - 1.0 - 1.0 - 1.0 - 1.0 - 1.0 - 1.0 - 1.0 - 1.0 - 1.0 - 1.0 - 1.0 - 1.0 - 1.0 - 1		

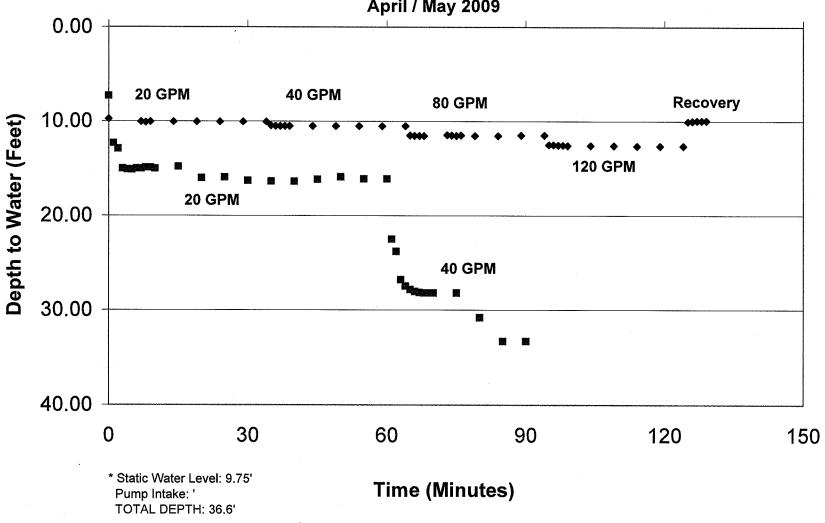
	Elapsed Time	Depth to Water	Drawdown	Pumping Rate	Pressure	
Time	(min)	(ft btomp)	(feet)	(gpm)	(psi)	Notes
1:31	. 0	0.110		20		Start
1:38	7	10.05	0.30	20	43	
1:39	8	10.10	0.35	20		
1:40	9	10.05	0.30	20		
1:45	14		0.30	20	43	B-13.1 R-13.7 Y-13.1
1:50	19	10.05		20		
1:55	24	10.05	0.30	20	43	
2:00	29	10.05	0.30	20		
2:05	34	10.05	0.30	20		
2:06	35	1.00.00		40	37	Rate Change - 40GPM
2:07	36			40		
2:08	37	10.50		40		
2:09	38			40	37	
2:10	39			40		B-13 R-13.8 Y-13.1
2:15	44	10.50		40		
2:20	49			40		
2:25	54	10.50		40		
2:30	59			40		
2:35	64	10.50		40	37	
2:36	65			80	34	Rate Change - 80GPM
2:37	66		1.80	80		
2:38	67	11.55		80		
2:39	68		1.80	- 80	34	
2:40	69					System Shut Down
2:44	73	11.45	1.70	80		Back On

	Elapsed Time	Depth to Water	Drawdown	Pumping Rate	Pressure	·
Time	(min)	(ft btomp)	(feet)	(gpm)	(psi)	Notes
2:45	74	11.50	1.75	80		
2:46	75	11.55		80	34	
2:47	76	11.50	1.75	80		
2:50	79	11.55	1.80	80		
2:55	84	11.55		80	34	B-14 R-14.7 Y-14
3:00	89	11.50	1.75	80		
3:05	94	11.50	1.75	80	i	
3:06	95	12.50	2.75	120	26	Rate Change 120GPM
3:07	96	12.50	2.75	120		
3:08	97	12.55		120		
3:09	98	12.55		120		
3:10		12.60		120	26	B-14.8 R-15.4 Y-14.7
3:15		12.60		120	26	
3:20	109	12.60	2.85	120		
3:25		12.65		120		
3:30		12.65		120		
3:35	124	12.65	2.90	120		Stop
Recovery						
3:36		10.05				
3:37	126	10.00	0.25			
3:38		9.95				
3:39		9.95				
3:40	129	9.95	0.20			

# Dvirka & Bartilucci Lindenhurst, NY Well #RW-1 Step-Rate Pumping Test Post Rehabilitation



# Dvirka & Bartilucci Lindenhurst, NY Well #RW-1 Step-Rate Pumping Test Pre - Post Comparison April / May 2009



# ATTACHMENT D

# WASTE CHARACTERIZATION RESULTS

# ACTIVE INDUSTRIAL UNIFORM SITE NYSDEC SITE No. 1-52-125 WASTE CHARACTERIZATION RESULTS

SAMPLE ID DATE OF COLLECTION UNITS	ASWC-1 5/5/2009 ug/L	HAZARDOUS WASTE REGULATORY LEVEL ug/L
Volatile Organics*	<b>_</b>	
Vinyl Chloride	U	200
1,1-Dichloroethene	U	400
2-Butanone	U	300
Chloroform	U	300
Carbon Tetrachloride	U	600
1,2-Dichloroethane	U	100
Benzene	U	60
Trichloroethene	U	700
Tetrachloroethene	1.7 J	1,400
Chlorobenzene	U	1,700
Semivolatile Organics		·
1,4-Dichlorobenzene	U	7,500
2-Methylphenol	U	200,000
4-Methylphenol	U	200,000
Hexachloroethane	U	3,000
Nitrobenzene	U	2,000
Hexachlorobutadiene	U	500
2,4,6-Trichlorophenol	U	2,000
2,4,5-Trichlorophenol	U	400,000
2,4-Dinitrotoluene	, U	130
Hexachlorobenzene	U	130
Pentachlorophenol	U	100,000
Pyridine	U	5,000
Pesticides		
gamma-BHC	U	400
Heptachlor	U	8
Heptachlor epoxide	U	<b></b> .
Endrin	υ	
Methoxychlor	υ	10
Toxaphene	υ	500
Chlordane	U	30
Herbicides		
2,4-D	U	10,000
2,4,5-TP (Silvex)	U	1,000
Metals		
Arsenic	13.8 B	5,000
Barium	181 B	100,000
Cadmium	2.7 B	1,000
Chromium	33.5	5,000
Lead	2.6 B	5,000
Mercury	0.091 B	200
Selenium	U	1,000
Silver	U	5,000
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Wet Chemistry Ignitability, in °F Reactive Cyanide, in mg/kg Reactive Sulfide, in mg/kg Corrosivity (pH), in s.u.		<140 250 500 <2 or≥ 12.5

# QUALIFIERS:

- U: Compound analyzed for but not detected
- B: Compound concentration is less than the CRDL but greater than the IDL
- J: Compound found at a concentration below the detection limit

# ATTACHMENT E

WASTE MANIFEST

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<b>A</b>	NON-HAZARDOUS	1. Generator ID Number	P	مرا <sup>ب</sup> ا	Emergency Respons		4. Waste T			
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	Action Truck							-	100 ZA	
	7. Transporter 2 Company Nam	2000 270					U.S. EPA ID	167/	48304	
	7. Hansporter 2 Company Ivan	Ed - 01 81 1: -							7,210	
	Vech A ES R	ECHNICAL Solutions ad Site Address							31369	
	8. Designated Facility Name an	id Sire Address ChriCAl Solutans a	210				U.S. EPA ID	Number		
	I FDEN LANE	ENPICAL SOLUTION A								
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	Facility's Phone:	0/036 (1/.	2/27/-/	(0)			│ <i>NJD</i>	980:	536593	
					10. Cont	ainers	11. Total	12. Unit		
	9. Waste Shipping Name	e and Description			No.	Type	Quantity	Wt./Vol.		
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	As agent to	MYSDEC K	enin Metki	44.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	4/_	****		06 2	24/08
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≅	Transporter Signature (for expor	rts only):			Date feav	ing U.S.:	_			
H.	16. Transporter Acknowledgmer	nt of Receipt of Materials								
TRANSPORTER	Transporter 1 Printed/Typed Na			Signatu	re				Month	Day Year
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DESIGNATED FACILITY	17c. Signature of Alternate Facil	lity (or Generator)		·		<del></del>		<del></del>	Month	Day Year
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# ATTACHMENT F

# **DESCRIPTION OF SYSTEM ALARM CONDITIONS**

### ACTIVE INDUSTRIAL UNIFORM SITE NYSDEC SITE No. 1-52-125 SUMMARY OF SYSTEM DOWNTIME

SHUT-OFF DATE/TIME	RESTART DATE/TIME	CAUSE FOR SHUTDOWN
4/3/09 2:15 PM	4/3/09 4:00 PM	Alarm condition 3 & 5: Reset VFDs. Hand pumped strippers #1 and #2 to low level. Restarted system.
4/27/09 1:23 PM	4/27/09 2:45 PM	Non-routine maintenance: Aqua-Freed application for RW-1 and Aquaguard installation. Restart only RW-1 to test pumping rate.
4/27/09 4:00 PM	4/30/09 9:35 AM	Non-routine maintenance: Aqua-Freed application for RW-1 and Aquaguard installation. Restart only RW-2 to run system while introducing purge water from RW-1 redevelopment.
4/27/09 4:00 PM	5/4/09 5:00 PM	Non-routine maintenance: Aqua-Freed application for RW-1 and Aquaguard installation. Restart RW-1.
5/5/09 6:50 AM	5/5/09 4:15 PM	Alarm condition 3 & 5: Reset VFDs. Hand pumped strippers #1 and #2 to low level. Restarted system.
5/5/09 4:52 PM	5/5/09 5:16 PM	Alarm condition 3 & 5: Reset VFDs. Hand pumped strippers #1 and #2 to low level. Reset PID set points based on high flows. Restarted system.
6/12/09 3:36 AM	6/12/09 7:18 PM	Alarm condition 3 & 5: Reset VFDs. Hand pumped strippers #1 and #2 to low level. Restarted system.
6/16/09 7:37 PM	6/19/09 3:30 PM	Alarm condition 3: High level building sump. Hand pumped sump level to low level. Restarted system.
6/24/09 9:20 AM	6/24/09 12:45 PM	Routine/Non-Routine Maintenance Event <sup>(1)</sup> - Performed routine blower maintenance. Patch hole in effluent filter with epoxy. Restart system.

# NOTES:

1. Maintenance event performed by Systematic Technologies, Inc.

# ATTACHMENT G

# SYSTEM MAINTENANCE REPORT

## MAINTENANCE AND INSPECTION REPORT ACTIVE INDUSTRIAL UNIFORM SITE, LINDENHURST, NY Date: 6/24/09 Name of Personnel Title Time Departed Total Hours Time Arrived Onsite 0910 1310 4 on site J. Sorensen Technician Technician 0910 1310 4 on site O. Rodriguez Check off Items that were completed: ☐ Item 6: Removal and Replacement of Air ☐ Item 1: Snow Removal Stripper Packing Material ☐ Item 7: Solids Filtration Change-out ☑ Item 2: Pressure Blower Maintenance Item 8: **Non-Routine Maintenance Services** ☐ Item 2A: Pressure Blower Fan Wheel Replacement ☐ Item 3: Transfer Pump Maintenance ☐ Item 4: Air Stripper Maintenance ☐ Item 5: Granular Activated Carbon Removal and Replacement Description of Work: Item 2: Pressure Blower Maintenance 1. Inspected fan wheel for wear and corrosion – none found. 2. Inspected fan wheel for buildup of materials – none found. 3. Inspected motor winding for dust and dirt - none found. 4. Lubricated motor bearings. Item 8: Non-Routine Maintenance 1. Vegeation clearing 2. Repaired leak in solids filter housing using epoxy Name of Part / Supply / Material | Manufacturer **Model Number Quantity Used** Mobil Mobilith SHC100 Not Measurable **Bearing Grease** BP 87 Octane Gasoline 5 Gallons Fuel 1 Kit **Epoxy Repair Kit** Devcon **Fasmetal** Waste Transporter Volume of Waste **Disposal Facility** Description of Waste Generated

(Name & Address)

(Name & Address)

In signing this report I hereby certify that to the best of my knowledge the maintenance and inspection
activities performed during this event conform to the requirements specified under contract between
STI and Dvirka and Bartilucci Luke Sorensen 7/13/09
Signature / Print / Date

MAI	NTENANCE	AND INS	PECTION REPO	RT	
ACTIVE IN	DUSTRIAL L	JNIFORM	SITE, LINDENH	URST, N	(
Deta: 4/4/00					
Date: 4/1/09  Name of Personnel	Title	Time Arriv	red Time Dep	artod	Total Hours
Onsite	i ilie	Time Amy	ed Time Dep	aiteu	Total Hours
	President	1320	1610		2.833 On Site, 1.5 Travel
Check off Items that were co	ompleted:				
☐ Item 1: Snow Removal ☐ Item 2: Pressure Blower ☐ Item 2A: Pressure Blower ☐ Replacement ☐ Item 3: Transfer Pump ☐ Item 4: Air Stripper Mair ☐ Item 5: Granular Activat ☐ Removal and Replacement ☐ Description of Work: ☐ Item 8: Non-Routine Mainten	er Fan Wheel Maintenance Intenance Ited Carbon Itenante		Stripper Packing Ma Item 7: Solids Filtr	iterial ation Chang	ment of Air ge-out ance Services
1.) Install UPS System	<u> </u>				
2.) Install vacuum breake					
3.) Diagnose/repair inoper	rable sump floa	t switch (or	en circuit)		
Name of Part / Supply / Mate	rial Manufactu	ırer	Model Number	Quant	ity Used
UPS System	APC		BE550G	1	
Vacuum Breaker	McMaster	-Carr	4817K55	1	
Description of Waste General	ted Volume of	Waste	Disposal Facility (Name & Address)		Transporter & Address)
In signing this report I hereby activities performed during the STI and Dvirka and Bartilucci	is event conform	n to the rec	uirements specified	under cont	
4.00		Sig	nature / Print / Date		<del>, , , , , , , , , , , , , , , , , , , </del>



## Back-UPS® ES 450/550G

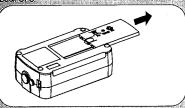
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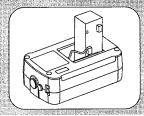
#### Connect Battery

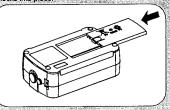
For safety, the Back-UPS ES is shipped with one battery wire disconnected. The UPS will not operate until the wire is connected to the touch-safe battery terminal. NOTE: Small sparks may occur during battery connection. This is normal.

• Turn the Back-UPS ES over and press in the release tab. Slide the plastic battery cover off of the Back-UPS. Connect the battery wire firmly to the battery terminal.

S Insert the battery back into the compartment. Slide the plastic battery cover until the release tab locks into place.



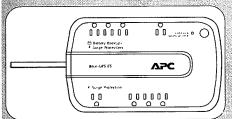




### Connect Equipment

Battery Back-up + / Surge Protection

These outlets are powered whenever the Back-UPS ES is switched ON. During a power outage or other utility problems (proyrnouts, over-vollages), these outlets will be powered for a limited time by the Back-UPS ES. Plug your computer, monitor, and other peripheral devices into the outlets.

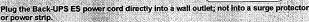


#### / Surge Protection

These outlets provide full-time protection from surges even if the Back-UPS ES is switched OFF. Plug your printer, fax machine, scanner, or other peripherals that do not need battery power into these outlets.

#### Place the Back-UPS ES to avoid:

- Direct sunlight
- Excessive heat
- Excessive humidity or contact with fluids



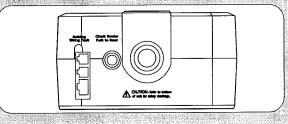
Connect Computer Cable

The supplied cable and software provide automatic file saving and shutdown of the operating system in the case of a sustained power outage.

Connect the cable to the Data Port of the Back-UPS ES. Connect the other end of the cable to the USB port on your computer. The software will automatically find the computer's USB Port.

#### Connect Modem / Phone / DSL / Fax

The Back-UPS protects a single line (2-wire) phone (including Digital Subscriber Line - DSL), Home Phoneline Networking Association (HPNA) type equipment, modern, or fax machines from surges when connected through the UPS as shown in the drawing below.



# Turn the Unit On and Install the Software Press the ON/OFF switch turn the unit ON.

A single short beep and the green "Power On" indicator confirms the Back-UPS ES is on and ready to provide protection.

The Back-UPS ES should charge for at least 16 hours to ensure sufficient runtime. The unit is being charged whenever it is connected to utility power, whether the unit is turned ON or OFF.

if the red Building Wiring Fault indicator (located on the end near the power cord) is lit, your building wiring presents a shock hazard that should be corrected by a qualified electrician.

Install the PowerChute Personal Edition software.
Place the PowerChute CD into the computer and following the
Installation instructions on the screen.

#### Transfer Voltage and Sensitivity Adjustment (Optional)

To adjust the transfer voltage:

- Plug the Back-UPS into the utility power source. The Back-UPS will be in "Standby mode" (no indicators are lit).
- Press the ON/OFF push button fully in for 10 seconds. The Online LED will begin glowing in a cyclical order: GREEN-AMBER-RED, indicating it is going into \*Program mode\*.
- The Back-UPS will then indicate the current sensitivity, as shown in the Transfer Voltage and Sensitivity Adjustment table below.
- To select the LOW sensitivity setting, press the ON/OFF push button until the LED begins flashing GREEN.
- To select the MEDIUM sensitivity setting, press the ON/OFF push button until the LED begins flashing RED.
- To select the HIGH sensitivity setting, press the ON/OFF push button until the LED begins flashing AMBER.
- To exit Programming mode, once sensitivity is set, wait approximately 5 seconds, and all of the LED indicators will be off (unlit).

#### **Status Indicators**

The Back-UPS ES indicates operating status using a combination of visual and audible indicators. Use the following table to identify the status of the Back-UPS ES.

Status	Visual Indications (Power On - Green) (Replace Battery - Red)	Audible Indication	Alarm Terminates When
Power On - UPS is supplying conditioned utility power to the load.	Power On pushbutton - ON (lit)	None	Not applicable.
On Battery - UPS is supplying battery power to the load connected to the Battery outlets.	Power On pushbutton - ON (off during beep)	Beeping 4 times every 30 seconds	UPS transfers back to Power On operation, or when UPS is turned off.
Low Battery Warning - UPS is supplying battery power to the load connected to the battery outlets, and the battery is near exhaustion.	Power On indicator is flashing	Rapid beeping (every 1/2 second)	UPS transfers back to normal operation, or when UPS is turned off.
Replace Battery - The battery is disconnected.	Replace Battery indicator is Flashing	Constant tone	UPS is turned off with the power switch.
The battery is in need of charging, or is at the end of its usual life and must be replaced.	Power On and Replace Battery indicators - flashing (afternating)	Constant tone	
Overtoad Shutdown - During On Battery operation a battery power supplied outlet overload was detected.	None	Constant tone	UPS is turned off with the power switch.
Sleep Mode - During On Battery operation the battery power has been completely exhausted and the UPS is waiting for utility power to return to normal.	None	Beeping once every 4 seconds	Utility power is restored, or if utility power is not restored within 32 seconds, or the UPS is turned off.
Building Wiring Fault - Your building wiring presents a shock hazard that should be corrected by a licensed electrician	Building Wiring Fault LED (red) - ON	None	UPS is unplugged, or UPS is plugged into a property wired outlet.

Indicators Flashing	Sensitivity Setting	Input Voltage Range (For Utility Operation)	When to Use
Green Flashing	LOW	88-142	Input voltage is extremely low or high. Not recommended for computer loads.
Red Flashing	MEDIUM (factory default)	92-139	Back-UPS frequently goes on battery.
Amber Flashing	HIGH	96-136	Connected equipment is sensitive to voltage fluctuations.

#### **Troubleshooting**

Problem	Probable Cause	Solution
Back-UPS ES will not turn on.	The battery is disconnected, and either power is unavailable at the wall outlet, or utility power is having a "brownout" or an "over voltage" condition.	Connect the battery (see Connect Battery) and ensure power is available at the wall outlet. If battery is connected and power is unavailable, the unit can be "cold started" (operated on battery power) by holding the power button down until two beeps are heard.
No power available at the Surge Protection outlets.	Surge Protection outlets were overloaded.  Utility power not available at the wall outlet.	Reduce the amount of equipment plugged into the Surge Protection outlets.  Ensure the fuse or circuit breaker for the outlet is not tripped, and that the wall switch controlling the outlet (if any) is in the ON position.
Back-UPS is on, but Replace Battery indicator flashes, and unit emits a constant tone.	Battery is disconnected.	Connect the battery (see Connect Battery diagram).
Connected equipment loses power.	Equipment is connected to the "Surge Protection" outlets.	Ensure the equipment you want to stay powered during a power failure is plugged into the "Battery Backup plus Surge Protection" outlets and NOT the "Surge Protection Only" outlets.
	The Back-UPS ES is overloaded.	Make sure the equipment plugged into the outlets of the unit are not overloading its capacity. Try removing some of the equipment and see if the problem continues.
	PowerChute Personal Edition software has performed a shutdown due to a power failure.	The Back-UPS ES is operating normally.
	The Back-UPS ES has exhausted its available battery power.	The Back-UPS ES can only operate on battery power for a limited amount of time. The unit will eventually turn off when the available battery power has been used. Allow the unit to recharge for 16 hours before expecting maximum runtime.
	Connected equipment does not accept the step- approximated sine waveform from the Back-UPS ES.	The output waveform is designed for computers and computer-related equipment. It is not designed for use with motor-type equipment.
	The Back-UPS ES may require service.	Contact APC Technical Support for further troubleshooting.
The Power On Indicator is lit and the Back-UPS ES beeps four times every 30 seconds.	The Back-UPS ES is On Battery.	The Back-UPS ES is operating normally, and using battery power. Once On Battery, you may want to save your current work, power down your equipment, and turn the unit OFF. Once normal power is restored, you may turn the unit back ON, and power your equipment.
The Power On Indicator flashes and the Back-UPS beeps twice per second at the same time.	Battery capacity is low (about 2 minutes of use remaining).	The Back-UPS ES is about to shut off due to a low battery charge condition! When the unit beeps twice every second, the battery has about 2 minutes of power remaining. Immediately power down your computer ,and turn the unit OFF. When normal power returns, the unit will recharge the battery.
Building Wiring Fault indicator is lit.	Your building wiring presents a shock hazard. Using the Back-UPS with this condition will void the warranty.	Call a qualified electrician for service.
inadequate runtime.	The battery is not fully charged.  Battery is near the end of useful life.	Allow the unit to charge by leaving it plugged into the wall at least 16 hours.  As a battery ages, the amount of runtime available will decrease. You can replace the battery by ordering one at www.apc.com. Batteries also age prematurely if the Back-UPS ES is placed near excessive heat.
No phone/fax/DSL signal from the Back-UPS.	Data line from the ISP or wall outlet is connected to the wrong jack on the Back-UPS.	Make sure the data line from the wall outlet is connected to the jack labeled "Wall Outlet".
Internet connection lost during power outage.	Modem lost AC power.	Plug the modem's AC power cord into one of the "Battery Back-up Plus Surge Protection outlets".

### **Specifications**

Model BE		1200		
Input	Voltage	120 Vrms nominat		
	Frequency	60 Hz <u>+</u> 3		
	Brownout Transfer	92 Vrms, typical		
	Over-voltage Transfer	139 Vrms, typical		
Output	UPS Capacity (4 outlets)	450 VA/550 VA ; 257 W/330 W		
	Total Amperage (8 outlets)	12 Amps (including UPS output)		
	Voltage - On Battery	115 Vrms ± 8% (step-approximated sine wave)		
	Frequency - On Battery	60 Hz <u>+</u> 1 Hz		
	Transfer Time	6 ms typical, 10 ms maximum		
	AC Surge Protection	Full time, 340 joules		
Filter	Phone/fax/DSL Surge Protection	Single line (2-wire)		
	EMI/RFI Filter	Full time		
	AC Input	Resettable circuit breaker		
Battery	Туре	Sealed, maintenance-free lead acid		
	Average Life	5 years depending on the number of discharge cycle     and environmental temperature		
Physical	Net Weight	Back-UPS 450: 10 lb ( 4.5 kg) Back-UPS 550: 12.4 lb (5.6 kg)		
	Size	11.2 in (H) x 7.1 in (W) x 3.4 in (D) . (28.2 cm x 18 cm x 8.7cm)		
	Operating Temperature	+32°F to 104°F (0°C to 40°C)		
	Storage Temperature	+5°F to 113°F (-15°C to 45°C)		
	Operating Relative Humidity	0 to 95% non-condensing		
	Operating Elevation	0 to 10,000 ft (0 to 3,000m)		
Safety and Regulatory	Safety Approvals	TUV C-US certified; UL 1776 standard per CSA standard C22.2 No. 107.3, FCC part 68 & FCC part 15 Class B, NOM certified		
	EMC Compliance	Notice: This device complies with part 68 and part 15 the FCC rules. Operation is subject to the following tw conditions: (1) This device may not cause harmfinterference, and (2) This device must accept an interference received, including interference that ma cause undesired operation.		
		*On the bottom of this equipment is a label that contain among other information, the FCC registration numb- and ringer equivalence number (REN) for this equipmer if requested, this information must be provided to the telephone company.*		

#### **Order Replacement Battery**

Replace with an APC qualified battery. Replacement batteries can be ordered from www.apc.com (valid credit card required). The replacement battery part number for this Back-UPS 450 is RBC 114, and for Back-UPS 550 is RBC 110.

#### Warranty

The standard warranty is 3 years from the date of purchase. APC's standard procedure is to replace the original unit with a factory reconditioned unit. Customers who must have the original unit back due to assigned asset tags and set depreciation schedules must declare such a need at first contact with APC Technical Support. APC will ship the replacement unit once the defective unit is received by the repair department or cross-ship upon the provision of a valid credit card number. The customer pays for shipping to APC, and APC pays ground freight transportation costs back to the customer.

#### Service

Please DO NOT RETURN Back-UPS ES to the place of purchase under any

- 1. Consult the Troubleshooting section to eliminate common problems.
- 2. Verify the battery is connected (see *Connect Battery*) and that the Circuit Breaker is not tripped (see *Troubleshooting* section).

If you still have problems or questions, please contact APC via the internet or at one of the phone numbers listed below.

- 3. Before contacting APC, please be sure to record the date purchased, UPS model, and serial number (on bottom of unit).
- 4. Be prepared to troubleshoot the problem over the telephone with a Technical Support Representative. If this is not successful, the representative will issue a Return Material Authorization Number (RMA#) and a shipping address.
- 5. Pack the unit in its original packaging. If the original packaging is not available, ask APC Technical Support about obtaining a new set. Pack the unit properly to avoid damage in transit. Never use foam beads for packaging. Damage sustained in transit is not covered under warranty (insuring the package for full value is recommended).
- Write the RMA# on the outside of the package.
- 7. Return the unit by insured carrier to the address given to you by APC Technical

#### APC Contact Information

Online Technical Support:

Web Site: USA/Canada: Mexico: Brazil: Worldwide: http://support.apc.com http://www.apc.com/support esupport@apcc.com www.apc.com 1.800.800.4272 +52.292.0253 / 52.292.0255 +0800.12.72.1 1,401.789.5735

### Check & Vacuum-Breaking Valves

For information about check valves, see page 470. For information about pipe size, see pages 2-3.

#### **Backwater Swing Check Valves**

Maximum Pressure: 0 psi (gravity flow)

Cracking Pressure: 0 psi (gravity now)
Temperature Range: PVC: 33° to 140° F;
ABS: 33° to 180° F

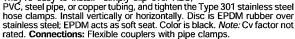
Prevent backflow in drain, waste, and vent piping systems. Valves have a top clean-out lid for easy access. Seal is Buna-N. Approvals: BOCA, IAPMO, and SBCCI. CSA certified. *Note:* Cv factor not rated. For horizontal use only. *PVC valves* are white and have a PVC seat; *ABS valves* are black and have an ABS seat. **Connections:** Socket weld (not threaded).

Pipe Size	End-to-	PVC	ABS
Size	End Lg.	Each	Each
11/2"	43/16"	.4670K12\$40.94	4670K52\$40.94
2"	41/2"	.4670K14 40.94	<b>4670K54</b> 40.94
3"	7³/s"	.4670K16 45.29	4670K56 45.29
4"	93/4"	.4670K18 52.08	4670K58 52.08
6"	15¹/s″	.4670K22159.51	4670K62148.51

#### ABS Swing Check Sump Pump Valves

Maximum Pressure: 50 psi @ 73° F
Cracking Pressure: 1.5 psi
Temperature Range: 40° to 140° F

Designed for sump pump line connections, valves are ABS with PVC end connections. They're easy to install—simply slip over ABS, PVC, steel pipe, or copper tubing, and tighten the Type 301 stainless steel



Pipe Size	End-to-End Lg.	Each
11/4" to 11/2"	43/4"	<b>7744K11</b> \$13.19
2"	41/2"	<b>7744K12</b> 26.18

#### Vacuum Swing Check Valves

Maximum Vacuum: 29.9" Hg
Temperature Range: -25° to +176° F

These check valves are used in vacuum

lines, relying on back pressure for instant op-eration in any position. Tapered ends easily connect to soft thermoplas-tic tubing (arrows on valve indicate direction of free flow). Body is poly-ethylene, disc is neoprene and acts as soft seat. Color is white. *Note:* Cracking pressure and Cv factor not rated. **Connections:** Barbed.

Fit Tube ID	End-to-End Lg.	Each
5/16" to 1/4"	23/4"	13\$6.80

#### Vacuum-Breaking Valves with Garden Hose Connections

Connect these vacuum breaking valves to hose bibbs and sill cocks or wall/yard faucets. Meant for intermitwallyard faucets. Meant for intermit-tent use only, valves are not for connections subject to continuous pressure. Body is brass, internal parts are stainless steel, and dia-phragm is rubber. Meet American Society of Sanitation Engineers (ASSE) Standard 1011, ANSI





Hose Bibbs and Sill Cocks

(ASSE) Standard 1011, ANSI and Sin Cocks Faucets
A1121.3, and Universal Plumbing Code (UPC). Listed by International
Association of Plumbing and Mechanical Officials (IAPMO) and certified by CSA B64.2. Maximum pressure is 125 psi. Temperature range
is 33° to 180° F. Removable valves are secured with a set screw.
Removable valves with a breakaway set screw are secured with a
plastic set screw. The head of the screw can be broken off to prevent
tampering and removal of the valve. Permanent-mount valves cannot be removed once they are threaded onto your hose.

Connections: 3/4" garden-hose thread female inlet and male outlet

O'all	Brass	Chrome-Plated Brass		
Ht.		Each		
For Use with Hose	Bibbs and Sill Co	cks		
Removable				
11/2"	46605K55\$	19.12	46605K58	\$24,91
Removable w/Brea				
1³/s"	46605K75	9.47	46605K85≡.	. 19.84
Permanent Mount				
13/4"	46605K65	22.94	46605K68■.	. 26.27
For Use with Wall	/Yard Faucets			
Removable	***************************************	***********		***************************************
2"	46605K88	24 26	46605K89	36.08

#### Bronze Horizontal-Lift Check Valves

Maximum Pressure:

Maximum Pressure:
 Class 125: 200 psi @ 150° F,
 Steam: 125 psi @ 353° F;
 Class 300: 1000 psi @ 150° F,
 Steam: 300 psi @ 421° F
 Cracking Pressure: Less than 1 psi
 Temp. Range: Class 125: -20° to +450° F;
 Class 300: -20° to +450° F

These rugged valves handle pulsating flow conditions that would cause excessive wear in a swing check valve, meet MSS-SP-80-Type 1, and are rated for steam service. They have a bronze body and work in water, noncorrosive liquids, and gases. Disc is bronze, except 4894K47, which is brass. All have metal-to-metal seat. Connections: NPT female.

			lass 125 ——	Class 30	<i>•</i>
Pipe	Cv	End-to-		End-to-	
Size	Factor	End Lg.	Each	End Lg.	Each
1/2":.	. 2.87	.25/32"	4894K47\$57.98	29/16"4894K81	\$136.87
3/4"	. 5.24	.21/2"	4894K12 91.55	3"4894K82	165.31
1"	. 8.86	3"	4894K13116.82	31/2"4894K83	281.44
11/4"	. 15.67	.319/32"	4894K14154.00	41/16"4894K84	375.81
11/2"	. 21.83	.37/8"	4894K15206.22	45/8"4894K85	407.27
2"	. 37 <i>.</i> 84	.421/32"	4894K16306.40	5 <sup>3</sup> / <sub>4</sub> "4894K86	505.00

#### Forged Steel Horizontal-Lift Piston Check Valves—Class 800

Maximum Pressure: 1975 psi
Cracking Pressure: 0.26 to 0.35 psi
Maximum Temperature: 800° F

Also known as gravity-lift valves, these are API 602, ASME B16.34 certified. The bolted body and cap provide maximum strength for high pressure applications. Piston is Type 410 stainless steel; gasket is Type 3161 stainless steel and graphite. Seat is metal-to-metal. Note: For horizontal use only. **Connections**: NPT female or socket we



Socket Weld

Pipe Size	End-to- End Lg.	Cv Factor	<b>NPT Female</b> Each	
1/2"	35/32"	1.2	4895K63 \$60.87	4895K83\$60.31
3/4"	335/64"	2.8	4895K64 65.77	4895K84 65.17
1"	421/64"	5	4895K65 76.96	4895K85 76.26
11/4"	5 <sup>29</sup> /32"	9	4895K66151.17	4895K86 149.80
11/2"	5 <sup>29</sup> /32"	12.5	4895K67151.17	4895K87150.63
2"	73/22"	17.5	4895K68 211 45	4895K88 211 45

#### FDA-Compliant Nylon Check Valves

• Maximum Pressure: 150 psi @ 70° F

Cracking Pressure: 0.5 psi
 Temperature Range: -60° to +200° F

Made of material that meets FDA requirements for use with soft tubing in food and beverage applications, these check valves fit into tight spots and have good chemical resistance. Diaphragm is silicone. Color is natural white. *Note*: Cv factor is not rated. **Connections:** Barbed.

End-to- End Lg.	Each	 End-to- End Lg.	Each
15/16" 2987K21 1 <sup>11</sup> /16" 2987K23		1 <sup>1</sup> 1/16" 2987K25 1 <sup>15</sup> /16" 2987K27	

#### Inline Vacuum-Breaking Valves

For use on steam coils, heat exchangers, and space heaters to pre-vent water hammer, these valves fit directly into vessels or your process ing line. Ball is spring-loaded and kept closed by pressure. When pressure drops below atmospheric, creating a vacuum situation, the valve opens and lets in air. As soon as the vacuum is broken and the pressure rises above atmospheric, the valve quickly





Female Outlet

closes again. Choose a brass or Type Female Outlet Outlet 303 stainless steel valve body. All have stainless steel internal parts with an EPR (ethylene propylene rubber) seat. Maximum pressure is 300 psi. Temperature range is -20° to +365° F. Connections: NPT male inlet; choose from NPT female outlet or unthreaded hole diameter.

To Order: Please specify NPT female outlet or unthreaded outlet.

		Size, Outlet	: Ht.	Tube OD	<b>Brass</b> Each	Stainless Steel Each
	3/8"×	1/4"	11/2"	9/16"	.4817K13♥ \$43.93	4817K63\$80.92
	1/2" ×	3/8"	13/4"	11/16"	4817K54 46.48 4817K55 60.54	4817K64 93.34
٥	3/4"×	1/2"	21/8"	13/16".	.4817K55 60.54	4817K65 121.32
	1" ×	3/4"	23/8"	11/16"	.4817K56108.97	4817K66 157.61
	11/4"×	1"	215/16".	15/16"	<b>4817K57</b> 172.69	4817K67 207.04
	11/2"×	11/4"	31/16"	19/16"	<b>4817K58</b> 173.78	4817K68230.77
	♥ Ava	ailable	with NP7	female	outlet only.	

#### ATTACHMENT H

ANALYTICAL RESULTS

#### RESULTS OF SYSTEM COMBINED INFLUENT ANALYSIS - VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	COMB INF	COMB INF	COMB INF	NVCDEC CLASS CA
SAMPLE TYPE	WATER	WATER	WATER	NYSDEC CLASS GA
DATE OF COLLECTION	4/24/2009	5/14/2009	6/24/2009	GROUNDWATER STANDARDS
COLLECTED BY	D&B	D&B	D&B	AND GUIDANCE VALUES
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)
VOCs	\-3/=/		(-5-7)	
Dichlorodifluoromethane	U	U	U	5 GV
Chloromethane	Ŭ	l ŭ	Ü	
Vinyl chloride	l ü	l ŭ	Ü	2 ST
Bromomethane	Ŭ	l ŭ	ŭ	5 ST
Chloroethane	Ü	l ŭ	Ü	5 ST
Trichlorofluoromethane	Ŭ	l ยั	Ü	5 ST
1,1-Dichloroethene	Ŭ	Ŭ	Ü	5 ST
Acetone	Ü	l ŭ	Ŭ	50 GV
Iodomethane	Ŭ	l ŭ	Ü	
Carbon disulfide	Ü	Ü	Ü	60 GV
1	U	U	Ü	5 ST
Methylene chloride	· ·	Ü	Ü	5 ST
trans 1,2-Dichloroethene	U	_		10 GV
Methyl-tert butyl ether	4.1 J	3.6 J	3.8 J	
1,1-Dichloroethane	U .:	U	U	5 ST
Vinyl acetate	U	U U	U	 50 GV
2-Butanone	U			
cis-1,2-Dichloroethene	17	21	51	5 ST
2,2-Dichloropropane	U	Ü	U	5 ST
Bromochloromethane	Ü	Ü	U.:	5 ST
Chloroform	Ü	U	U	7 ST
1,1,1-Trichloroethane	Ü	Ü	U ::	5 ST
1,1-Dichloropropene	U	U	U	5 ST
Carbon tetrachloride	U	U	U	5 ST
1,2-Dichloroethane	, U	ប	U	0.6 ST
Benzene	U	U	U	1 ST
Trichloroethene	14	21	27	5 ST
1,2-Dichloropropane	U	U	U	1 ST
Bromodichloromethane	U	U	U	5 ST
cis-1,3-Dichloropropene	U	υ	U	0.4 ST
4-Methyl-2-pentanone	U	υ	U	
Toluene	U	υ	U	5 ST
trans-1,3-Dichloropropene	U	υ	U	0.4 ST
1,1,2-Trichloroethane	U	υ	U <sup>*</sup>	1 ST
1,3-Dichloropropane	U	U	U	5 ST
Tetrachloroethene	54	77	71	5 ST
2-Hexanone	U	U	Ü	50 GV
Dibromochloromethane	U	. U	U	50 GV
1.2-Dibromoethane	U	l u	U	5 ST
Chlorobenzene	Ú	l u	U	5 ST
1,1,1,2-Tetrachloroethane	υ	l u	U	5 <b>ST</b>
Ethylbenzene	U	l u	U	5 ST
Xylene (total)	Ú	l ú	U	5 ST
Styrene	Ŭ	l ŭ	Ü	5 ST
Bromoform	Ü	l ŭ	Ü	50 GV
Isopropylbenzene	Ŭ	l ŭ	Ü	5 ST
1,1,2,2-Tetrachloroethane	υ	ľ	Ü	5 ST
Bromobenzene	Ŭ	l ŭ	Ü	5 ST
1,2,3-Trichloropropane	Ŭ	l ŭ	Ü	0.04 ST
n-Propylbenzene	ľυ	l ŭ	Ü	5 ST
2-Chlorotoluene	Ü	l ŭ	Ü	5 ST
1,3,5-Trimethylbenzene	Ŭ	l ŭ	Ü	5 ST
4-Chlorotoluene	Ü	l ŭ	Ü	5 ST
tert-Butylbenzene	Ü	Ŭ	Ü	5 ST
1,2,4-Trimethylbenzene	Ü	Ŭ	Ü	5 ST
sec-Butylbenzene	Ü	Ü	Ü	5 ST
4-Isopropyltoluene	Ü	Ü	Ü	5 ST
1.3-Dichlorobenzene	Ü	Ü	Ü	3 ST
1.4-Dichlorobenzene	Ü	Ü	Ü	3 ST
1 '	U	Ü	U	5 ST
n-Butylbenzene	U	U U	U	3 ST
1,2-Dichlorobenzene	Ü	U	U	0.04 ST
1,2-Dibromo-3-chloropropane		_	U	0.04 S T
1,2,4-Trichlorobenzene	U	U	U	
Hexachlorobutadiene	Ü	U	_	0.5 ST
Naphthalene	U	U	U	10 GV
1,2,3-Trichlorobenzene	U	U 400.0	U 450.0	5 ST
Total VOCs	89.1	122.6	152.8	



Concentration exceeds NYSDEC Class GA Groundwater Standards or Guidance Values

#### **ABBREVIATIONS:**

--: Not established ST: Standard Value GV: Guidance Value

#### **QUALIFIERS:**

- ug/L = Micrograms per liter U: Compound analyzed for but not detected
  - J: Compound found at a concentration below CRDL, value estimated
  - B: Compound found in a blank as well as the sample

#### RESULTS OF SYSTEM COMBINED INFLUENT ANALYSIS - INORGANIC COMPOUNDS AND GENERAL CHEMISTRY

SAMPLE ID	COMB INF	COMB INF	COMB INF	
SAMPLE TYPE	WATER	WATER	WATER	NYSDEC CLASS GA
DATE OF COLLECTION	4/24/2009	5/14/2009	6/24/2009	GROUNDWATER
COLLECTED BY	D&B	D&B	D&B	STANDARDS
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)
INORGANIC COMPOUNDS				
Aluminum	20.2 B	U	U	
Antimony	3.8 B	3.8 J	U	3
Arsenic	U	U	U	25
Barium	29.6 B	22.4 J	19.8 J	1,000
Beryllium	U	U	U	
Cadmium	0.32 B	0.53 J	0.51 J	5
Calcium	111,000	78,800	79,700	
Chromium	Į U	.0.15 J	U	
Cobalt	0.91 B	0.55 J	0.62 J	
Copper	17 B	6.2 J	12.7 J	200
Iron	676	147	420	300
Lead	2.2 B	T U	2.9 J	25
Magnesium	133,000	83,800	87,600 E	
Manganese	2,120	1,720	1,710 E	300
Mercury	0.034 B	U	U	0.7
Nickel	1.5 B	0.87 J	U	100
Potassium	35,000	22,300	23,300	
Selenium	U	U	י ט	10
Silver	U	U	U	50
Sodium	1,150,000	737,000 D	720,000 D	20,000
Thallium	Ü	U	U	
Vanadium	U	U	U	
Zinc	20.4	48.2 J	94.4	
Iron and Manganese	2,796	1,867	2,130	500
GENERAL CHEMISTRY				
pH (S.U.)	6.3	6.1	5.9	6.5 - 8.5

NOTES:

#### **QUALIFIERS:**

- Concentration exceeds NYSDEC B: Analyte detected greater than IDL, but less than CRDL.
- Class GA Groundwater Standards U: Compound analyzed for but not detected.
  - E: Compound concentration exceeds instrument calibration range, value estimated.

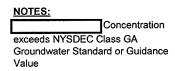
#### **ABBREVIATIONS:**

ug/L: Micrograms per liter

--: Not established

#### RESULTS OF SYSTEM EXTRACTION WELLS - VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	RW-1 INF	RW-2 INF	NIVODEO OLACO OA
SAMPLE TYPE	WATER	WATER	NYSDEC CLASS GA
DATE OF COLLECTION	6/24/2009	6/24/2009	GROUNDWATER STANDARDS
COLLECTED BY	D&B	D&B	AND GUIDANCE VALUES
UNITS	(ug/L)	(ug/L)	(ug/L)
VOCs	(05,11)	(-3,-2)	
Dichlorodifluoromethane	U	U	5 GV
Chloromethane	Ŭ	Ŭ	
Vinyl chloride	Ū	Ŭ	2 ST
Bromomethane	l ŭ	Ü	5 ST
Chloroethane	Ŭ	Ŭ	5 ST
Trichlorofluoromethane	Ŭ	Ŭ	5 ST
1,1-Dichloroethene	ľ	Ü	5 ST
Acetone	Ŭ	Ŭ	50 GV
Iodomethane	Ŭ	Ü	_
Carbon disulfide	ŭ	Ŭ	60 GV
Methylene chloride	l ŭ	ΰ	5 ST
trans 1,2-Dichloroethene	Ŭ	Ü	5 ST
Methyl-tert butyl ether	j	7.3	10 GV
1,1-Dichloroethane	ŭ	1.0 J	5 ST
Vinyl acetate	Ŭ	Ü	_
2-Butanone	Ŭ	Ŭ	50 GV
cis-1,2-Dichloroethene	120	3.6 J	5 ST
2,2-Dichloropropane	U	U	5 ST
Bromochloromethane	U	Ü	5 ST
Chloroform	U	Ü	7 ST
1,1,1-Trichloroethane	U	Ü	5 ST
1,1-Dichloropropene	. U	Ü	5 ST
Carbon tetrachloride	Ŭ	Ü	5ST
1,2-Dichloroethane	Ŭ	Ü	0.6 ST
Benzene	Ŭ	Ŭ	1 ST
Trichloroethene	56	2.8 J	5 ST
1,2-Dichloropropane	U	U	1 ST
Bromodichloromethane	l υ	Ŭ	5 ST
cis-1,3-Dichloropropene	l ŭ	Ŭ	0.4 ST
4-Methyl-2-pentanone	l ŭ	Ŭ	J. 401
Toluene	l ŭ	Ŭ	5 ST
trans-1,3-Dichloropropene	Ü	Ü	0.4 ST
1,1,2-Trichloroethane	Ü	Ŭ	1 ST
1,3-Dichloropropane	l ŭ	Ιŭ	5 ST
Tetrachloroethene	130	Ü	5 ST
2-Hexanone	U	Ŭ	50 GV
Dibromochloromethane	Ü	Ŭ	50 GV
1,2-Dibromoethane	Ŭ	Ŭ	5 ST
Chlorobenzene	Ü	Ŭ	5 ST
1,1,1,2-Tetrachloroethane	Ü	Ŭ	5 ST
Ethylbenzene	Ü	ľ	5 ST
Xylene (total)	Ü	Ü	5 ST
Styrene	· U	Ü	5 ST
Bromoform	Ü	Ü	50 GV
Isopropylbenzene	l ŭ	l ü	5 ST .
1,1,2,2-Tetrachloroethane	Ü	Ü	5 ST
Bromobenzene	l ü	Ü	5 ST
1,2,3-Trichloropropane	Ü	Ü	0.04 ST
n-Propylbenzene	l ü	Ŭ	5 ST
2-Chlorotoluene	l ü	l ŭ	5 ST
1,3,5-Trimethylbenzene	lυ	Ŭ	5 ST
4-Chlorotoluene	l ΰ	Ŭ	5 ST
tert-Butylbenzene	l ΰ	Ŭ	5 ST
1,2,4-Trimethylbenzene	l ŭ	l ŭ	5 ST
sec-Butylbenzene	Ιυΰ	Ŭ	5 ST
4-Isopropyltoluene	l ŏ	Ŭ	5 ST
1.3-Dichlorobenzene	l ŭ	Ŭ	3 ST
1,4-Dichlorobenzene	l ü	Ü	3 ST
n-Butylbenzene	Ü	Ü	5 ST
1,2-Dichlorobenzene	U	Ŭ	3 ST
1,2-Dichloroberizerie	l ü	Ü	0.04 ST
1,2,4-Trichlorobenzene	U	Ü	5 ST
Hexachlorobutadiene	U	Ü	0.5 ST
Naphthalene	U	Ü	10 GV
1,2,3-Trichlorobenzene	ľ	Ü	5 ST
Total VOCs	306	14.7	
1000 1003	1	17.1	1



#### ABBREVIATIONS:

-: Not established

ST: Standard Value GV: Guidance Value

#### **QUALIFIERS:**

- ug/L = Micrograms per liter U: Compound analyzed for but not detected
  - J: Compound found at a concentration below CRDL, value estimated
  - B: Compound found in a blank as well as the sample

# ACTIVE INDUSTRIAL UNIFORM SITE NYSDEC SITE No. 1-52-125 RESULTS OF SYSTEM EXTRACTION WELLS - INORGANIC COMPOUNDS AND GENERAL CHEMISTRY

SAMPLE ID	RW-1 INF	RW-2 INF	
SAMPLE TYPE	WATER	WATER	NYSDEC CLASS GA
DATE OF COLLECTION	6/24/2009	6/24/2009	GROUNDWATER
COLLECTED BY	D&B	D&B	STANDARDS
UNITS	(ug/L)	(ug/L)	(ug/L)
INORGANIC COMPOUNDS			· ·
Aluminum	U	U	-
Antimony	3.0 J	U	3
Arsenic	l U	U	25
Barium	17.3 J	23.6 J	1,000
Beryllium	U	U	
Cadmium	U	0.89 J	5
Calcium	21,700	143,000	
Chromium	U	U	
Cobalt	0.40 J	0.63 J	
Copper	4.1 J	20.7 J	200
Iron	76.9 J	639	300
Lead	U	3.9 J	25
Magnesium	3,950 JE	169,000 E	
Manganese	1,080 E	2,490 E	300
Mercury	U	U	0.7
Nickel	U	U	100
Potassium	2,450 J	45,800	
Selenium	U	U	10
Silver	U	U	50
Sodium	26,800	1,570,000 D	20,000
Thallium	U	U	
Vanadium	U	U	
Zinc	10.9 J	29.8 J	
Iron and Manganese	1,157	3,129	500
GENERAL CHEMISTRY			
pH (S.U.)	6.0	6.0	6.5 - 8.5

**NOTES:** 

Concentration exceeds NYSDEC
Groundwater Standards

#### **ABBREVIATIONS:**

ug/L: Micrograms per liter

--: Not established

#### **QUALIFIERS:**

- B: Analyte detected greater than IDL, but less than CRDL.
- U: Compound analyzed for but not detected.
- E: Compound concentration exceeds instrument calibration range, value estimated

## ACTIVE INDUSTRIAL UNIFORM SITE NYSDEC SITE No. 1-52-125 RESULTS OF SYSTEM MIDFLUENT ANALYSIS - VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	AS-MID	
SAMPLE TYPE	WATER	NYSDEC CLASS GA
DATE OF COLLECTION	6/24/2009	GROUNDWATER STANDARDS
COLLECTED BY	D&B	AND GUIDANCE VALUES
UNITS	(ug/L)	(ug/L)
VOCs	(ug/L)	
Dichlorodifluoromethane	U	5 GV
Chloromethane	Ů	
Vinyl chloride	U	2 ST
Bromomethane	U	5 ST
Chloroethane	U	5 ST
Trichlorofluoromethane	U	5 ST
1,1-Dichloroethene	U	5 ST
Acetone	U	50 GV
lodomethane	U i	
Carbon disulfide	U U	60 GV 5 ST
Methylene chloride	l ü	5 ST
trans 1,2-Dichloroethene Methyl-tert butyl ether	3.2 J	10 GV
1,1-Dichloroethane	J.2 U	5 ST
Vinyl acetate	l ŭ	
2-Butanone	l ü	50 GV
cis-1,2-Dichloroethene	3.1 J	5 ST
2,2-Dichloropropane	Ü	5 ST
Bromochloromethane	Ū	5 ST
Chloroform	U	7 ST
1,1,1-Trichloroethane	U	5 ST
1,1-Dichloropropene	U	5 ST
Carbon tetrachloride	U	5 ST
1,2-Dichloroethane	l ü	0.6 ST
Benzene	U	1 ST
Trichloroethene	U U	5 ST 1 ST
1,2-Dichloropropane Bromodichloromethane	U	5 ST
cis-1,3-Dichloropropene	l υ	0.4 ST
4-Methyl-2-pentanone	l ΰ	
Toluene	l ŭ.	5 ST
trans-1,3-Dichloropropene	Ū	0.4 ST
1,1,2-Trichloroethane	U	1 ST
1,3-Dichloropropane	U	5 ST
Tetrachloroethene	U	5 ST
2-Hexanone	<u>U</u>	50 GV
Dibromochloromethane	U	50 GV
1,2-Dibromoethane	Ü	5 ST 5 ST
Chlorobenzene 1,1,1,2-Tetrachloroethane	U U	5 ST
Ethylbenzene	l ü	5 ST
Xylene (total)	l ü	5 ST
Styrene	Ŭ	5 ST
Bromoform	Ŭ	50 GV
Isopropylbenzene	- Ŭ	5 ST
1,1,2,2-Tetrachloroethane	Ú	5 ST
Bromobenzene	U	5 ST
1,2,3-Trichloropropane	U	0.04 ST
n-Propylbenzene	U	5 ST
2-Chlorotoluene	U	5 ST
1,3,5-Trimethylbenzene	U	5 ST
4-Chlorotoluene	U	5 ST 5 ST
tert-Butylbenzene 1,2,4-Trimethylbenzene	U	5 ST
sec-Butylbenzene	Ü	5 ST
4-Isopropyltoluene	l ü	5 ST
1,3-Dichlorobenzene	Ŭ	3 ST
1,4-Dichlorobenzene	Ŭ	3 ST
n-Butylbenzene	Ū	5 ST
1,2-Dichlorobenzene	Ú	3 ST
1,2-Dibromo-3-chloropropane	U	0.04 ST
1,2,4-Trichlorobenzene	U	5 ST
Hexachlorobutadiene	U	0.5 ST
Naphthalene	U 	10 GV
1,2,3-Trichlorobenzene	U	5 ST
Total VOCs	6.3	

#### NOTES:

Concentration exceeds NYSDEC Class GA Groundwater Standards or Guidance Values

#### ABBREVIATIONS:

ug/L = Micrograms per liter
--: Not established

ST: Standard Value GV: Guidance Value

#### **QUALIFIERS:**

U: Compound analyzed for but not detected J: Compound found at a concentration below CRDL, value estimated

#### ACTIVE INDUSTRIAL UNIFORM SITE NYSDEC SITE No. 1-52-125 RESULTS OF SYSTEM EFFLUENT ANALYSIS - VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	COMB EFF	COMB EFF	COMB EFF	
SAMPLE TYPE	WATER	WATER	WATER	NYSDEC
DATE OF COLLECTION	4/24/2009	5/14/2009	6/24/2009	Site Specific
COLLECTED BY	D&B	D&B	D&B	Effluent Limitation
UNITS	(ug/L)	(ug/L)	(ug/L)	-
VOCs	(-9,-)	(-9)	(+3, -)	(ug/L)
Dichlorodifluoromethane	U	U	U	NL NL
Chloromethane	Ü	Ü	Ū	NL
Vinyl chloride	Ū	U	U	10
Bromomethane	Ú	U	U	NL
Chloroethane	υ	U	U	NL
Trichlorofluoromethane	U	Ü	U	NL
1,1-Dichloroethene	U	U	U	NL
Acetone	U	U	U	NL
Iodomethane	U	U	U	NL.
Carbon disulfide	U	U	U	NL
Methylene chloride	U .	U	U	NL
trans 1,2-Dichloroethene	U	υ	U	10*
Methyl-tert butyl ether	U	1.6 J	1.5 J	NL
1,1-Dichloroethane	U	U	U	NL
Vinyl acetate	U.	Ü	Ü	NL NI
2-Butanone	U	U	U	NL 40t
cis-1,2-Dichloroethene	U	Ü	U	10*
2,2-Dichloropropane	U	U	U	NL NI
Bromochloromethane	U	U	U	NL NI
Chloroform	1.6 J	U	U	NL 5
1,1,1-Trichloroethane	U	U	U	NL
1,1-Dichloropropene Carbon tetrachloride	U U	U U	U	NL
1,2-Dichloroethane	U	U	U	NL NL
Benzene	Ü	U	Ü	NL
Trichloroethene	U	Ü	Ü	10
1,2-Dichloropropane	Ü	Ü	Ü	NL NL
Bromodichloromethane	Ü	Ü	Ü	NL
cis-1,3-Dichloropropene	l ŭ	Ü	ŭ	NL
4-Methyl-2-pentanone	Ŭ	Ü	ŭ	NL
Toluene	Ŭ	Ü	Ü	NL.
trans-1,3-Dichloropropene	Ū	ŭ	Ü	NL .
1,1,2-Trichloroethane	ľů	Ü	Ū	NL
1,3-Dichloropropane	υ	U	U	NL
Tetrachloroethene	υ	U	U	4
2-Hexanone	υ	U	U	NL
Dibromochloromethane	U	U	U	· NL
1,2-Dibromoethane	υ	U	U	NL
Chlorobenzene	U	U	U	NL
1,1,1,2-Tetrachloroethane	υ	U	U .	NL
Ethylbenzene	U	U	U	NL 
Xylene (total)	U	U	U	5**
Styrene	Ü	Ü	Ü	NL .::
Bromoform	U 	Ü	U	NL NI
Isopropylbenzene	U	U	U	NL NI
1,1,2,2-Tetrachloroethane	U	U		NL NI
Bromobenzene	U	U	U	NL NL
1,2,3-Trichloropropane	U U	U U	U U	NL NL
n-Propylbenzene	U	U	U	NL NL
2-Chlorotoluene 1,3,5-Trimethylbenzene	Ü	U	U	NL NL
4-Chlorotoluene	Ü	U	Ü	NL
tert-Butylbenzene	Ü	Ü	Ü	NL NL
1,2,4-Trimethylbenzene	Ü	Ü	Ü	NL NL
sec-Butylbenzene	Ü	Ü	ŭ	NL
4-Isopropyltoluene	Ŭ	Ü	υ	NL
1,3-Dichlorobenzene	υ	Ŭ	Ŭ	NL
1,4-Dichlorobenzene	Ŭ	Ü	Ŭ	NL
n-Butylbenzene	Ü	Ü	Ū	NL
1,2-Dichlorobenzene	Ü	Ü	Ŭ	NL
1,2-Dibromo-3-chloropropane	Ü	Ü	Ū	NL
1,2,4-Trichlorobenzene	Ü	Ú	υ	NL
Hexachlorobutadiene	Ü	U	U	NL
Naphthalene	U	U	.U	NL
1,2,3-Trichlorobenzene	U	U	U	NL
Total VOCs	U	U	U	

NOTES:

Concentration exceeds NYSDEC Site Specific Effluent Limitation

**ABBREVIATIONS** ug/L = Micrograms per liter NL - No limit specified

#### **QUALIFIERS:**

U: Compound analyzed for but not detected

\* - Effluent limitation for 1,2 Dichloroethene (Total)

\*\* - Effluent limit for xylene-o= 5 ug/l, xylene -m&p = 10 ug/l

#### RESULTS OF SYSTEM EFFLUENT ANALYSIS - INORGANIC COMPOUNDS AND GENERAL **CHEMISTRY**

SAMPLE ID	COMB EFF	
SAMPLE TYPE	WATER	NYSDEC
DATE OF COLLECTION	6/24/2009	Site Specific
COLLECTED BY	D&B	Effluent Limitation
UNITS	(ug/L)	
INORGANIC COMPOUNDS		(ug/L)
Aluminum	U	4,000
Antimony	U	NL
Arsenic	U	140
Barium	18.3 B	NL
Beryllium ,	U	NL
Cadmium	0.44 J	30
Calcium	82,100	NL
Chromium	U	NL
Cobalt	0.42 J	NL
Copper	2.7 J	38
Iron	126	4,000
Lead	U	NL
Magnesium	90,200 E	NL
Manganese	1,260 E	2,000
Mercury	0.028 J	NL
Nickel	U	65
Potassium	24,200	NL
Selenium	U	NL
Silver	U	9
Sodium	761,000 D	NL
Thallium	U	NL
Vanadium	U ·	NL
Zinc	16.6 J	370
GENERAL CHEMISTRY		
pH (S.U.)	7.4	6-9

N	0	Т	Ε	S	

**QUALIFIERS:** 

Concentration exceeds NYSDEC Site Specific

B: Concentration above IDL but less than CRDL.

U: Compound analyzed for but not detected.

**Effluent Limitation** 

E: Compound concentration exceeds instrument calibration

#### **ABBREVIATIONS:**

ug/L: Micrograms per liter NL: No limit specified NS: Not sampled

# ACTIVE INDUSTRIAL UNIFORM SITE NYSDEC SITE No. 1-52-125 RESULTS OF SYSTEM EFFLUENT ANALYSIS - SEMI-ANNUAL PARAMETERS

SAMPLE ID	COMB EFF	NVCDEC
SAMPLE TYPE	WATER	NYSDEC Site Specifie
DATE OF COLLECTION	6/24/2009	<ul><li>Site Specific</li><li>Effluent Limitation</li></ul>
COLLECTED BY	D&B	Emdent Limitation
WET CHEMISTRY		
Alkalinity, Total (mg/L CaCO <sub>3</sub> )	-	NL
Total Dissolved Solids (mg/L)	3,000	Monitor
Total Suspended Solids (mg/L)	ND	20
pH (S.U.)	7.4	6 - 9
Chemical Oxygen Demand (mg/L)	ND	NL
FIELD TESTS	1	
pH (S.U.)		6 - 9
Temperature (°C)		NL
Turbidity (NTU)	8.7	NL
Conductivity (uS)	5.96	NL
Dissolved Oxygen (mg/L)	6.84	NL .
Total Chlorine (mg/L)	0.06	NL

#### **ABBREVIATIONS:**

ug/L: Micrograms per liter

mg/L: Milligrams per liter uS: Microsemens

S.U.: Standard Units

NTU: Nephelometric Turbidity Units

NL - No limit specified

ND - Not detected

### ACTIVE INDUSTRIAL UNIFORM SITE NYSDEC SITE No. 1-52-125 RESULTS OF ANALYSIS OF GROUNDWATER SAMPLING - VOLATILE ORGANIC COMPOUNDS (VOCS)

	T				( · · · · · · · · · · · · · · · · · · ·			r	T
SAMPLE ID	MW-101	MW-102	MW-103	MVV-104	MW-105	MW-106	MW-107	MW-108	NYSDEC CLASS GA
SAMPLE TYPE	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	GROUNDWATER
DATE OF COLLECTION	6/23/2009	6/23/2009	6/23/2009	6/23/2009	6/23/2009	6/23/2009	6/23/2009	6/23/2009	STANDARDS AND GUIDANCE
COLLECTED BY	D&B	D&B	D&B	D&B	D&B	D&B	D&B	D&B	VALUES
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
VOCs							1777-7	144-27	
Dichlorodifluoromethane	Ü	Ü	U	U	Ù	U	Ú	U	5 GV
Chloromethane	l u	ĺυ	l ú	l ŭ	i ū	l ŭ	Ιŭ	ĺŭ	1
Vinyl chloride	lυ	lυ	l u	l ū	Ū	20 J	Ŭ	ľů	2 ST
Bromomethane	lυ	l u	U	l ñ	ů '	U	Ü	ľů	5 ST
Chloroethane	Ŭ	l ŭ	ŭ	l ĭi	ŭ	Ĭ	Ιŭ	Ιŭ	5 ST
Trichlorofluoromethane	Ŭ	ľ	ŭ	l ŭ	ľů	ŭ	Ĭ	Ιŭ	5 ST
1,1-Dichloroethene	ĺŪ	Ιŭ	Ŭ	l ŭ	l ŭ	ŭ	Ŭ	Ιŭ	5 ST
Acetone	ľů	Ιŭ	ŭ	Ιŭ	ŭ	ŭ	Ιŭ	lü	50 GV
Iodomethane	Ĭ	Ιŭ	Ŭ	l ŭ	ŭ	ŭ	ľů	l ü	50 GV
Carbon disulfide	Ü	Ιŭ	ľů	l ŭ	ŭ	ŭ	ŭ	l ŭ	60 GV
Methylene chloride	Ŭ	l ŭ	Ιŭ	lŭ	ŭ	ŭ	1.2 J	l ü	5 ST
trans 1,2-Dichloroethene	Ŭ	Ιŭ.	Ιŭ	l ŭ	Ŭ	ŭ	1.2 3	Ü	5 ST
Methyl-tert butyl ether	Ĭ	l ŭ	l ŭ	l ü	Ü	ŭ	Ü	Ü	10 GV
1,1-Dichloroethane	l ü	l ŭ	Ιŭ	ŭ		u	lü		
Vinyl acetate	ľů	Ü	Ιŭ	11	U	l ü	ŭ	U	. 5 ST
2-Butanone	l ü	Ü	l ü	l ü	Ü	l U	Ü	l ü	50.07
cis-1,2-Dichloroethene	l ŭ	Ü	Ιŭ	u u	ŭ	540		_	50 GV
2,2-Dichloropropane	l ü	Ŭ	l ü	i i			2.4 J	U	5 ST
Bromochloromethane	l ü	Ü	l ü		Ų	U	U	l ü	5 ST
				U	U	U	U 	l ü	5 ST
Chloroform	U U	U	U U	U	U	U	U	l ü	7 ST
1,1,1-Trichloroethane	U	l	U U	U	Ų	U	U	U	5 ST
1,1-Dichloropropene	l ü	U.	U U	U	U	U	U	U U	5 ST
Carbon tetrachloride	l ü	U .:	<u> </u>	l	U	U	U	U	5 ST
1,2-Dichloroethane Benzene	U U	U	l u	U	U	U	U	U	0.6 ST
	"			U	U	U	U	· U	1 ST
Trichloroethene		U	1.0 J	34 J	1.4 J	75	1.5 J	U	5 ST
1,2-Dichloropropane	U	U	U	U	U	U	U	Įυ	1 ST
Bromodichloromethane	l ü	U	U	U	U	U	U	U	5 ST
cis-1,3-Dichloropropene	Ų	U	U	υ	U	U	U	U	0.4 ST
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	-
Toluene	U	U	U	U	υ	U	υ	U	5 ST
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	0.4 ST
1,1,2-Trichloroethane	l n	l o	l n	U	υ	U	U	U	1 ST
1,3-Dichloropropane	U	U	U	U U	U	U U	U	Įυ	5 ST
Tetrachloroethene	U	1.6 J	14	760	7.8	180	20	4.2 J	5 ST
2-Hexanone	U	U	U	Į U	U	U	U	U	50 GV
Dibromochloromethane	U	U	U	U	U	U	U	υ	50 GV
1,2-Dibromoethane	U	U	U	U	U	l u	U	U	5 ST
Chlorobenzene	U	U	U	l o	U	U	U	U	5 ST
1,1,1,2-Tetrachloroethane	l n	U	l u	l u	U	U	l u	l u	5 ST
Ethylbenzene .	l u	U	U	l u	U	U	U	l u	5 ST
Xylene (total)	U	U	U	U	U	U	U	l u	5 ST
Styrene	U	U	U	U	U	U	U	U	5 ST
Bromoform	U	U	U	U	U	U	U	U	50 GV
Isopropylbenzene	U	į u	U	U	U	U	U	l u	5 ST
1,1,2,2-Tetrachloroethane	U	U	į u	U	U	ΰ	·U	l u	5 ST
Bromobenzene	U	U	U	U	U	U	U	l u	5 ST
1,2,3-Trichloropropane	U	U	U	U	U	U	U ·	l u	0.04 ST
n-Propylbenzene	U	U	U	υ	U	U	Ú	l ū	5 ST
2-Chlorotoluene	U	U	U	U	U	U	U	Ú	5 ST
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	ļυ	5 ST
4-Chlorotoluene	U	U	U	υ	U	U	U	U	5 ST
tert-Butylbenzene	U	· U	Ū	Ū	Ū	Ū	Ū	l ū	5 ST
1,2,4-Trimethylbenzene	Ü	Ū	Ū	. ŭ	Ū	Ū	ű	Ŭ	5 ST
sec-Butylbenzene	U	Ü	Ū	Ū	l ū	Ū	Ü	Ū	5 ST
4-isopropyitoluene	l ŭ	Ŭ	ľű	ŭ	ľű	Ŭ	ĺ	ľů	5 ST
1,3-Dichlorobenzene	Ŭ	Ü	l ü	Ū	l ŭ	Ŭ	l ŭ	ľů	3 ST
1,4-Dichlorobenzene	Ĭ	Ŭ	Ιŭ	υ	l ŭ	ŭ	Ü	ľű	3 3 7
n-Butylbenzene	Ιυσ	Ĭ	Ιŭ	ĭ	l ŭ	ŭ	Ü	l ü	5 ST
1,2-Dichlorobenzene	l ŭ	l ŭ	l ŭ	l ii	Ü	l ŭ	. 0	ľ	3 ST
1,2-Dictioroperizerie	l ŭ	Ŭ	l ŭ	Ü	l ü	l ü	Ü	Ü	0.04 ST
1,2,4-Trichlorobenzene	l ü	Ü	0		l ü	Ü	U U	Ü	0.04 S1 5 ST
	Ü	Ü		Ü					
Hexachlorobutadiene	Ü	Ü	U		U	U	U	U	0.5 ST
Naphthalene		"	"	1	U	U	U	l U	10 GV
1,2,3-Trichlorobenzene	0	1.6		<u> </u>	U	U	U	<u> </u>	5 ST
Total VOCs	1 1)	1.6	15	794	9.2	815	25.1	4.2	Jan 1987
		1							
GENERAL CHEMISTRY pH (S.U.)	6,5	6.5	6.4	6.4	6.4	6.6	6.7	6.3	6-9

Concentration exceeds NYSDEC Class GA Groundwater Standard or Guidance Value
(1) - Sample analyzed at a dilution of 25:1.
(2) - Sample analyzed at a dilution of 4:1.

#### **ABBREVIATIONS**

ug/L = Micrograms per liter

-: Not established

ST: Standard Value GV: Guidance Value

#### QUALIFIERS:

U: Compound analyzed for but not detected
J: Compound found at a concentration below CRDL, value estimated

B: Compound found in a blank as well as the sample

#### RESULTS OF ANALYSIS OF GROUNDWATER SAMPLING - VOLATILE ORGANIC COMPOUNDS (VOCS)

	•			T					
SAMPLE ID.	MW-109	MW-110 <sup>(3)</sup>	MW-111	MW-2S					NYSDEC CLASS GA
SAMPLE TYPE	WATER	WATER	WATER	WATER .					GROUNDWATER
DATE OF COLLECTION	6/23/2009	6/23/2009	6/23/2009	6/23/2009					STANDARDS AND GUIDANCE VALUES
COLLECTED BY	D&B	D&B	Q&B	D&B					(ug/L)
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)			·		(ug/L)
VOCs			·						
Dichlorodifluoromethane Chloromethane	U		Ų	U					5 GV
Vinyl chloride	Ü		U U	2.2 J					
Bromomethane	U								2 ST
Chloroethane	Ü		U	U .					5 ST
Trichlorofluoromethane	Ŭ		U U	l ü					5 ST
1,1-Dichloroethene	Ü		Ü	Ü					-5 ST 5 ST
Acetone	Ü		Ü	Ü					5 S I 50 GV
Iodomethane	Ŭ		Ŭ	l ŭ l					50 GV
Carbon disulfide	ŭ		ŭ	l ŭ l					60 GV
Methylene chloride	Ŭ		ľů	l ŭ					5 ST
trans 1,2-Dichloroethene	Ü		Ū	1.6 J		·			5 ST
Methyl-tert butyl ether	2.1 J	!	Ü	U					10 GV
1,1-Dichloroethane	1.2 J		U	Ü					5 ST
Vinyl acetate	U		U	U					-
2-Butanone	U		U	U					50 GV
cis-1,2-Dichloroethene	2.1 J		U	220 D					5 ST
2,2-Dichloropropane	U		υ	U	·				5 ST
Bromochloromethane	U		U	U					5 ST
Chloroform	Ų		u	U					7 ST
1,1,1-Trichloroethane	U.:		U ·	Į Ų					5 ST
1,1-Dichloropropene Carbon tetrachloride	U U		U.:	U U					5 ST
Carbon tetrachloride 1,2-Dichloroethane	U		U U	U U					5 ST
Benzene	Ŭ		Ü	l ü					0.6 ST
Trichloroethene	1.6 J		Ü	2.3 J					1 ST
1,2-Dichloropropane	1.0 3		Ŭ	2.3 0					5 ST 1 ST
Bromodichloromethane	Ŭ		ŭ	l ŭ					5 ST
cis-1,3-Dichloropropene	Ŭ		ĺŪ	ľů					0.4 ST
4-Methyl-2-pentanone	Ŭ		Ŭ	ŭ					0.431
Toluene	Ũ		Ū	Ŭ					5 ST
trans-1,3-Dichloropropene	Ŭ		ľ	Ŭ					0.4 ST
1,1,2-Trichloroethane	Ū		Ū	Ū					1 ST
1,3-Dichloropropane	U		U	υ					5 ST
Tetrachloroethene	2.3 J		U	2.6 J					5 ST
2-Hexanone	U		U	U			·		50 GV
Dibromochloromethane	U		υ	U					50 GV
1,2-Dibromoethane	U		U	U					5 ST
Chlorobenzene	U		U	U					5 ST
1,1,1,2-Tetrachloroethane	U		Ü	Ų					5 ST
Ethylbenzene	Ü		U U	U U					5 ST
Xylene (total)	. ü		Ü	lü					5 ST
Styrene Bromoform	Ü		Ü	lü					5 ST 50 GV
Isopropylbenzene	Ŭ	İ	Ü	l ü					50 GV 5 ST
1,1,2,2-Tetrachloroethane	ŭ	1	ŭ	l ŭ					5 ST
Bromobenzene	ŭ	İ	Ŭ	ľ					5 ST
1,2,3-Trichloropropane	Ü		Ŭ	Ū					0.04 ST
n-Propylbenzene	Ü	İ	Ū	Ü					5 ST
2-Chlorotoluene	U	İ	U	Ú					5 ST
1,3,5-Trimethylbenzene	U	1	U	U					5 ST
4-Chlorotoluene	U		U	U					5 ST
tert-Butylbenzene	U		U	U					5 ST
1,2,4-Trimethylbenzene	U		U	U					5 ST
sec-Butylbenzene	U	1	u	U					5 ST
4-Isopropyltoluene	Ü	1	U	Ų.					5 ST
1,3-Dichlorobenzene	Ü	1	U	U					3 ST
1,4-Dichlorobenzene	U		U	U					3 ST
n-Butylbenzene	U	1	u	U U					5 ST
1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane	U U	İ	U	U U					3 ST
1,2-Dibromo-3-chioropropane	Ü		Ü						0.04 ST
1,2,4-1 renioropenzene Hexachlorobutadiene	Ü	İ	Ü						5 ST
Naphthalene	Ü		Ü						0.5 ST 10 GV
1,2,3-Trichlorobenzene	Ŭ		Ü	;					10 GV 1. 5 ST
Total VOCs	9.3	†	ŭ	228.7				<del> </del>	
GENERAL CHEMISTRY		<u> </u>	l — — — —	A-0.1		· · · · · · · · · · · · · · · · · · ·	<u> </u>	<del> </del>	<u> </u>
pH (S.U.)	6.0	<u> </u>	6.2	6.0		· · · · · · · · · · · · · · · · · · ·			6-9
Winter: A		·	·	J			L		U-9

Concentration exceeds NYSDEC Class GA Groundwater Standard or Guidance Value (3) - Monitoring well MW-110 was not sampled since it could not be located and has reportedly been paved over by the local municipality.

#### **ABBREVIATIONS**

ug/L = Micrograms per liter

-: Not established

ST: Standard Value GV: Guidance Value

#### QUALIFIERS:

- U: Compound analyzed for but not detected
- J: Compound found at a concentration below CRDL, value estimated B: Compound found in a blank as well as the sample

### **ACTIVE INDUSTRIAL UNIFORM SITE**

### NYSDEC SITE No. 1-52-125 RESULTS OF ANALYSIS OF VAPOR PHASE CARBON VESSEL (VPCV) INFLUENT - VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	VPCV-INF	VPCV-INF	VPCV-INF
SAMPLE TYPE	AIR	AIR	. AIR
DATE OF COLLECTION	4/24/2009	5/14/2009	6/24/2009
COLLECTED BY	D&B	D&B	D&B
UNITS	(ug/m³)	(ug/m³)	(ug/m <sup>3</sup> )
VOCs			
Acetone	U	4.4 B	9.0
Benzene	2.5	0.13	0.5
Benzyl Chloride	U	U	lυ
Bromodichloromethane	Ű	Ü	ľ
Bromoform	ŀ ŭ	ľ	l ŭ
Bromomethane	Ű	ľ	ľ
1,3-Butadiene	Ü	ľ	l . ŭ
2-Butanone (MEK)	1.9	0.87	4.7
Carbon Disulfide	'." U	υ υ	57
Carbon Distinue  Carbon Tetrachloride	Ü	0.10	Ι " υ
	1.3	0.33	0.8
Chlorobenzene		U.33 U	U 0.8
Chlorodibromomethane	U U	l ü	l ü
Chloroethane	The state of the s		1
Chloroform	0.95	0.25	0.8
Chloromethane	1.4	0.67	1.1
Cyclohexane	2.0	U	l U
1,2-Dibromoethane	U	U	U
1,2-Dichlorobenzene	2.3	0.44	1.2
1,3-Dichlorobenzene	0.77	0.21	U
1,4-Dichlorobenzene	2.3	0.37	1.1
Dichlorodifluoromethane	2.8	0.59	2.3
1,1-Dichloroethane	10	2.0	3.8
1,2-Dichloroethane	U	U	l u
1,1-Dichloroethylene	1.7	0.4	1.4
cis-1,2-Dichloroethylene	190	70	350
t-1,2-Dichloroethylene	2.0	0.54	2.4
1,2-Dichloropropane	U	U	ប
cis-1,3-Dichloropropene	U	U	U
trans-1,3-Dichloropropene	U	l u	U
1,2-Dichlorotetrafluoroethane (114)	Ü	l u	l u
Ethanol	4.5	2.5 B	5.7
Ethyl Acetate	U	l · Ū	U
Ethylbenzene	1.6	ľ	Ū
4-Ethyl Toluene	0.80	ľ	ľ
n-Heptane	2.2	l ŭ	l ŭ
Hexachlorobutadiene	υ	ľ	l ŭ
Hexane	5.2	ľ	1.1
2-Hexanone	U.	0.19	l u
1	0.57	1.2	0.7
Isopropanol		5.9	19
Methyl tert-Butyl Ether (MTBE)	36 2.0	5.9 1.1 B	6.3
Methylene Chloride			
4-Methyl-2-Pentanone (MIBK)	U	Ų	U U
Propene	4.9	l U	_
Styrene	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U 740
Tetrachloroethylene	580	160	740
Tetrahydrofuran	U	l u	U
Toluene	9.6	0.16	2.9
1,2,4-Trichlorobenzene	U	U	U
1,1,1-Trichloroethane	6.7	1.0	1.8
1,1,2-Trichloroethane	U	U	U
Trichloroethylene	130	69	220
Trichlorofluoromethane	1.3	0.28	1.5
1,1,2-Trichloro-1,2,2-Trifluoroethane	U	U	U
1,2,4-Trimethylbenzene	3.0	0.23	1.6 U
1,3,5-Trimethylbenzene	1.4	U	U
Vinyl Acetate	U	Ü	U
Vinyl Chloride	3.6	2.1	2.2
m/p-Xylene	5.8	υ	1.3
o-Xylene	3.0	ľ	0.6
Total VOCs	946	325	1,441

#### ABBREVIATIONS:

ug/m³ - Micrograms per cubic meter

U: Compound analyzed for but not detected. J: Analyte detected at or below quantitation limits

#### RESULTS OF ANALYSIS OF VAPOR PHASE CARBON VESSEL (VPCV) MIDFLUENT - VOLATILE ORGANIC COMPOUNDS

SAMPLE ID	VPCV-MID	VPCV-MID	VPCV-MID
SAMPLE TYPE	AIR	AIR	AIR
DATE OF COLLECTION	4/24/2009	5/14/2009	6/24/2009
COLLECTED BY	D&B	D&B	D&B
UNITS	(ug/m³)	(ug/m³)	(ug/m³)
VOCs	(53,)	(33)	CS
Acetone	4.4	1.5	4.4
Benzene	υ	U	U
Benzyl Chloride	Ū	Ū	Ü
Bromodichloromethane	l ū l	Ū	Ū
Bromoform	Ü	Ü	Ü
Bromomethane	Ū	Ū	Ū
1,3-Butadiene	Ū	Ū	Ū
2-Butanone (MEK)	1.1	0.27	1.3
Carbon Disulfide	υ "	0.11	U
Carbon Tetrachloride	lυ	U	Ū
Chlorobenzene	Ü	Ü	l ū
Chlorodibromomethane	l ü	Ü	Ü
Chloroethane	l ü	Ü	ľ
Chloroform	1.1	0.14	1.2
Chloromethane	1.4	0.42	1.1
Cyclohexane	υ ''-	U	ن <sup></sup> ن
1,2-Dibromoethane	Ü	Ŭ	l ü
1,2-Dichlorobenzene	l ü	Ü	l υ
1,3-Dichlorobenzene	Ü	Ŭ	l ü
1,4-Dichlorobenzene	l ü.	Ŭ	l ŭ
Dichlorodifluoromethane	3.0	0.56	2.8
1,1-Dichloroethane	12	1.5	9.9
1,2-Dichloroethane	. '² u	U	l υ υ
1,1-Dichloroethylene	2.4	0.39	3.5
cis-1,2-Dichloroethylene	240	41	280
t-1,2-Dichloroethylene	2.7	0.34	2.9
1,2-Dichloropropane	U .	U	υ υ
cis-1,3-Dichloropropene	l ü	· Ü	l ŭ
trans-1,3-Dichloropropene	l ü	Ü	l ŭ
1,2-Dichlorotetrafluoroethane (114)	l ü -	Ü	l ŭ
Ethanol	2.0	0.84 B	2.0
Ethyl Acetate	U U	U	l - Σ.Υ υ
Ethylbenzene	l · Ü	Ü	ľ
4-Ethyl Toluene	l ü	Ü	ľ
n-Heptane	l ŭ	Ü	ľ
Hexachlorobutadiene	l ŭ l	Ü	l ŭ
Hexane	l ŭ	Ü	l ŭ
2-Hexanone	l ü	Ü	ľ
Isopropanol	1.0	0.18	Ü
Methyl tert-Butyl Ether (MTBE)	15	0.95	5.4
Methylene Chloride	2.4	1.0 B	4.2
4-Methyl-2-Pentanone (MIBK)	U U	U	υ
Propene (MIBIC)	Ü	Ü	l ŭ
Styrene	l ü	· Ü	Ü
1,1,2,2-Tetrachloroethane	Ü	Ü	Ú
Tetrachloroethylene	17	0.56	4.5
Tetrahydrofuran	΄΄ υ	U	U
Toluene	l ü	Ü	ľ
1,2,4-Trichlorobenzene	υ	Ü	Ū
1,1,1-Trichloroethane	6.0	0.70	3.2
1,1,2-Trichloroethane	υ	U	υ
Trichloroethylene	61	7.1	48
Trichlorofluoromethane	1.3	0.19	1.5
1,1,2-Trichloro-1,2,2-Trifluoroethane	υ	U	υ
1,2,4-Trimethylbenzene	0.72	U	υ
1,3,5-Trimethylbenzene	υ	U	U
Vinyl Acetate	υ	U	U
Vinyl Chloride	4.1	2.1	6.3
m/p-Xylene	U	U	U
o-Xylene	U	U	U
Total VOCs	345	60	382

#### **ABBREVIATIONS:**

#### **QUALIFIERS:**

ug/m³ - Micrograms per cubic meter

#### RESULTS OF ANALYSIS OF VAPOR PHASE CARBON VESSEL (VPCV) EFFLUENT - VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	VPCV-EFF	VPCV-EFF	VPCV-EFF
SAMPLE TYPE	AIR	AIR	AIR
DATE OF COLLECTION	4/24/2009	5/14/2009	6/24/2009
COLLECTED BY	D&B	D&B	D&B
UNITS	(ug/m³)	(ug/m³)	(ug/m³)
VOCs			
Acetone	7.5	4.0 B	6.9
Benzene	U		U
Benzyl Chloride	U		U
Bromodichloromethane	U		U
Bromoform	U		U
Bromomethane	U	1	U
1,3-Butadiene	U		U
2-Butanone (MEK)	1.5	0.79	2.3
Carbon Disulfide	U	0.17	U
Carbon Tetrachloride	υ		U
Chlorobenzene	U		U
Chlorodibromomethane	U		U
Chloroethane	U		U
Chloroform	0.8	·	0.58
Chloromethane	1.4	0.53	1.1
Cyclohexane	U		U
1,2-Dibromoethane	U		U
1,2-Dichlorobenzene	U		U
1,3-Dichlorobenzene	U		U
1,4-Dichlorobenzene	U .		U
Dichlorodifluoromethane	3.1	0.55	3.0
1,1-Dichloroethane	9.5	0.57	6.6
1,2-Dichloroethane	U	]	U
1,1-Dichloroethylene	2.1	1.4	3
cis-1,2-Dichloroethylene	220	16	160
t-1,2-Dichloroethylene	2.3	0.15	1.6
1,2-Dichloropropane	U		U
cis-1,3-Dichloropropene	U		U
trans-1,3-Dichloropropene	U		U
1,2-Dichlorotetrafluoroethane (114)	U		U
Ethanol	2.6	2.3 B	3.4
Ethyl Acetate	U *		U
Ethylbenzene	U		U
4-Ethyl Toluene	U		U
n-Heptane	U	i	U
Hexachlorobutadiene	U		U
Hexane	U	0.12	U
2-Hexanone	U	0.13	0.46
Isopropanol	32	5.1	0.64
Methyl tert-Butyl Ether (MTBE)	6.3	0.12	0.97
Methylene Chloride	3.1	1.4 B	4.8
4-Methyl-2-Pentanone (MIBK)	U		U
Propene	U	1	U
Styrene	U		U
1,1,2,2-Tetrachloroethane	U		U
Tetrachloroethylene	1.4	0.17	1.4
Tetrahydrofuran	U		U
Toluene	U	. 1	U
1,2,4-Trichlorobenzene	U	1	U
1,1,1-Trichloroethane	3.6	0.18	1.2
1,1,2-Trichloroethane	U		U
Trichloroethylene	9.2	0.39	3.7
Trichlorofluoromethane	1.3	0.24	1.5
1,1,2-Trichloro-1,2,2-Trifluoroethane	U		U
1,2,4-Trimethylbenzene	0.93		U
1,3,5-Trimethylbenzene	U		U
Vinyl Acetate	U		U
Vinyl Chloride	3.7	0.98	6.3
m/p-Xylene	U		U U
o-Xylene	U		209

#### ABBREVIATIONS:

ug/m³ - Micrograms per cubic meter

#### **QUALIFIERS:**

U: Compound analyzed for but not detected.

J: Analyte detected at or below quantitation limits

#### ACTIVE INDUSTRIAL UNIFORM SITE NYSDEC SITE No. 1-52-125 SUMMARY OF VAPOR EMISSION RATES

#### Vapor Phase Carbon Vessel Effluent (VPCV-EFF) Sample Collection Date: April 24, 2009

	Concentration	Flow Rate	Emission Rate	NYSDEC Required Effluent Limits	Percentage of NYSDEC Permitted
Compound Detected (1)	(ug/m³)	(ft³/min)	(lbs/hr)	(lbs/hr)	Effluent Limits Detected
Acetone	7.5	955	2.7E-05	NL NL	
2-Butanone (MEK)	, 1.5	955	5.4E-06	NL NL	
Chloroform	0.8	955	2.9E-06	NL NL	
Chloromethane	1.4	955	5.0E-06	NL	
Dichlorodifluoromethane	3.1	955	1.1E-05	NL	
1,1-Dichloroethane	9.5	955	3.4E-05	NL	
1,1-Dichloroethylene	2.1	955	7.5E-06	, NL	<del></del> .
1,2-Dichloroethylene (total)	222.3	955	8.0E-04	3.0E-03	26.5%
Ethanol	2.6	955	9.3E-06	NL	
Isopropanol	. 32	955	1.1E-04	ŅL	
Methyl tert-Butyl Ether (MTBE)	6.3	955	2.3E-05	ŅĹ	-
Methylene Chloride	3.1	955	1.1E-05	NL NL	<del>-</del>
Tetrachioroethylene	1.4	955	5.0E-06	7.0E-03	0.1%
1,1,1-Trichloroethane	3.6	955	1.3E-05	NL	=
Trichloroethylene	9.2	955	3.3E-05	6.0E-03	0.5%
Trichlorofluoromethane	1,3	955	4,7E-06	NL	
1,2,4-Trimethylbenzene	0.93	955	3.3E-06	NL ,	
Vinyl Chloride	3.7	955	1.3E-05	1.4E-02	0.1%
Total VOCs	312	955	1.1E-03	5.0E-01	0.2%

#### Vapor Phase Carbon Vessel Effluent (VPCV-EFF) Sample Collection Date: May 14, 2009

į	Concentration	Flow Rate	Emission Rate	NYSDEC Required Effluent Limits	Percentage of NYSDEC Permitted
Compound Detected (1)	(ug/m³)	(ft³/min)	(lbs/hr)	(lbs/hr)	Effluent Limits Detected
Acetone	4	1,033	1.5E-05	NL	
2-Butanone (MEK)	0.79	1,033	3.1E-06	NL	
Carbon Disulfide	0.17	1,033	6.6E-07	NL	**
Chloromethane	0.53	1,033	2.1E-06	NL	
Dichlorodifluoromethane	0.55	1,033	2.1E-06	NL	
1,1-Dichloroethane	0.57	1,033	2.2E-06	NL .	
1,1-Dichloroethylene	1.4	1,033	5.4E-06	, NL	-
1,2-Dichloroethylene (total)	16,15	1,033	6.3E-05	3.0E-03	2.1%
Ethanol	2.3	1,033	8.9E-06	NL	
Hexane	0.12	1,033	4.6E-07	NL	-
2-Hexanone	0.13	1,033	5.0E-07	NL	
Isopropanol	5.1	1,033	2.0E-05	ŅL	
Methyl tert-Butyl Ether (MTBE)	0.12	1,033	4.6E-07	NL	
Methylene Chloride	1,4	1,033	5.4E-06	- NL	
Tetrachloroethylene	0.17	1,033	6.6E-07	7.0E-03	0.0%
1,1,1-Trichloroethane	0.18	1,033	7.0E-07	1,0E-03	0.1%
Trichloroethylene	0.39	1,033	1.5E-06	6.0E-03	. 0.0%
Trichlorofluoromethane	0.24	1,033	9.3E-07	, NL	
Vinyl Chloride	0.98	1,033	3.8E-06	1.4E-02,	0.0%
Total VOCs	35.3	1,033	1.4E-04	5.0E-01	0.0%

#### Vapor Phase Carbon Vessel Effluent (VPCV-EFF) Sample Collection Date: June 24, 2009

	Concentration	Flow Rate	Emission Rate	NYSDEC Required Effluent Limits	Percentage of NYSDEC Permitted
Compound Detected (1)	(ug/m³)	(ft³/min)	(lbs/hr)	(lbs/hr)	Effluent Limits Detected
1,1,1-Trichloroethane	1.20	1,036	4.7E-06	1.0E-03	0.5%
1,1-Dichloroethane	6.60	1,036	2.6E-05	NL NL	
1,1-Dichloroethylene	2.70	1,036	1.0E-05	NL	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.60	1,036	6,2E-06	NL	**
2- Butanone (MEK)	2.30	1,036	8.9E-06	NL	
2-Hexanone	0.46	1,036	1.8E-06	NL NL	
Acetone	6.90	1,036	2.7E-05	NL NL	***
Chloroform	0.58	1,036	2.3E-06	NL	
Chloromethane	1.10	. 1,036	4.3E-06	NL.	
cis-1,2-Dichloroethylene	160	1,036	6.2E-04	3.0E-03	20.7%
Dichlorodifluoromethane	3.00	1,036	1.2E-05	NL	
Ethanol	3.40	1,036	1.3E-05	NL.	
Isoproponol	0.64	1,036	2.5E-06	NL	
Methyl tert-Butyl Ether (MTBE)	0.97	1,036	3.8E-06	NL	
Methylene Chloride	4.80	1,036	1,9E-05	NL.	
Tetrachloroethylene	1.40	1,036	5.4E-06	7.0E-03	0.1%
Trichloroethylene	3.70	1,036	1.4E-05	6.0E-03	0.2%
Trichlorofluoromethane	1.50	1,036	5.8E-06	NL	
Vinyl chloride	6.30	1,036	2.4E-05	1.4E-02	0.2%
Total VOCs	209.15	1,036	8.1E-04	5.0E-01	0.2%

#### NOTES:

1. Only detected compounds are listed. Al	Il other VOCs were undetected during this sampling event.
	Concentration exceeds NYSDEC permitted effluent limits

#### ABBREVIATIONS:

NL - No limit specified in permit application ug/m³ - Micrograms per cubic meter ft³/min - Cubic feet per minute lbs/hr - Pounds per hour

#### ATTACHMENT I

#### PERFORMANCE SUMMARY

#### EXTRACTION AND TREATMENT SYSTEM PERFORMANCE RESULTS - AQUEOUS

5/16/2005 77 6/20/2005 75 7/25/05 <sup>(3)</sup> 69 8/30/05 <sup>(3)</sup> 70	(gpm) 9.80 (RW-1) 0.00 (RW-2) 7.67 (RW-1) 0.00 (RW-2) 5.85 (RW-1) 0.00 (RW-2)	(ug/L) 562	(ug/L)	(%)	REMOVAL RATE (lb/hr)	RUNTIME (hr)	TOTAL VOC REMOVAL (lbs)
5/16/2005 77 6/20/2005 75 7/25/05 <sup>(3)</sup> 69 8/30/05 <sup>(3)</sup> 70	7.67 (RW-1) 0.00 (RW-2)		3 J	99.47%	2.24E-02	444	808.15
6/20/2005 75 7/25/05 <sup>(3)</sup> 69 8/30/05 <sup>(3)</sup> 70		636	< 5.0	99.21%	2.47E-02	644	824.08
7/25/05 <sup>(3)</sup> 69 8/30/05 <sup>(3)</sup> 70	\	693	< 5.0	99.28%	2.63E-02	1083	852.56 <sup>(2)</sup>
8/30/05 <sup>(3)</sup> 70	9.61 (RW-1) 82.32 (RW-2)	378	< 5.0	98.68%	2.87E-02	576 (RW-1) 464 (RW-2)	867.36
	0.25 (RW-1) 83.00 (RW-2)	277	< 5.0	98.19%	2.12E-02	599 (RW-1) 599 (RW-2)	880.08
aranina 195	8.70 (RW-1) 82.50 (RW-2)	535	< 5.0	99.07%	4.05E-02	755 (RW-1) 460 (RW-2)	904.13 <sup>(2)</sup>
	7.10 (RW-1) 82.70 (RW-2)	397	< 5.0	98.74%	2.97E-02	559 (RW-1) 559 (RW-2)	920.76
	3.83 (RW-1) 81.58 (RW-2)	464	< 5.0	98.92%	3.37E-02	669 (RW-1) 669 (RW-2)	943.35
	3.82 (RW-1) 80.60 (RW-2)	244	< 5.0	97.95%	1.76E-02	969 (RW-1) 969 (RW-2)	960.44 <sup>(2)</sup>
	3.00 (RW-1) 78.85 (RW-2)	258	< 5.0	98.06%	1.83E-02	566 (RW-1) 566 (RW-2)	970.79
	7.00 (RW-1) 79.00 (RW-2)	390	< 5.0	98.72%	2.85E-02	673 (RW-1) 442 (RW-2)	989.97
	6.55 (RW-1) 0.00 (RW-2)	540	< 5.0	99.07%	1.80E-02	848 (RW-1) 0 (RW-2)	1,005.21 (2)
	5.46 (RW-1) 0.00 (RW-2)	560	< 5.0	99.11%	1.83E-02	395 (RW-1) 0 (RW-2)	1,012.46
	4.27 (RW-1) 0.00 (RW-2)	223	< 5.0	97.76%	7.17E-03	423 (RW-1) 0 (RW-2)	1,012.46
	4.76 (RW-1) 0.00 (RW-2)	567	< 5.0	99.12%	1.84E-02	918 (RW-1) 0 (RW-2)	1,015.49
	5.32 (RW-1) 0.00 (RW-2)	550	< 5.0	99.09%	1.80E-02	473 (RW-1) 0 (RW-2)	1,040.86
	3.60 (RW-1) 91.30 (RW-2)	258	< 5.0	98.06%	2.00E-02	719 (RW-1) 96 (RW-2)	1,055.23
	0.33 (RW-1) 90.31 (RW-2)	294	< 5.0	98.30%	2.22E-02	1016 (RW-1) 1016 (RW-2)	1,077.73 (2)
	9.18 (RW-1) 0.00 (RW-2)	666	< 5.0	99.25%	1.97E-02	209 (RW-1) 0 (RW-2)	1,081.85
	8.40 (RW-1) 0.00 (RW-2)	840	< 5.0	99.40%	2.45E-02	550 (RW-1) 0 (RW-2)	1,081.85
	6.70 (RW-1) 0.00 (RW-2)	474	< 5.0	98.95%	1.34E-02	1418 (RW-1) 0 (RW-2)	1,114.41 <sup>(2)</sup>
	4.22 (RW-1) 0.00 (RW-2)	405	< 5.0	98.77%	1.10E-02	85 (RW-1) 0 (RW-2)	1,115.35
	6.28 (RW-1) 0.00 (RW-2)	244	< 5.0	97.95%	6.87E-03	756 (RW-1) 0 (RW-2)	1,119.55
	2.37 (RW-1) 0.00 (RW-2)	281	< 5.0	98.22%	7.36E-03	505 (RW-1) 0 (RW-2)	1,124.26 (2)
	1.33 (RW-1) 0.00 (RW-2)	269 <sup>(6)</sup>	< 5.0	98.14%	6.91E-03	213 (RW-1) 0 (RW-2)	1,125.73 <sup>(2)</sup>
1	2.26 (RW-1) 0.00 (RW-2)	257	< 5.0	98.05%	6.72E-03	266 (RW-1) 0 (RW-2)	1,127.52
1	2.47 (RW-1) 0.00 (RW-2)	251	< 5.0	98.01%	6.59E-03	692 (RW-1) 0 (RW-2)	1,132.08
	1.57 (RW-1) 0.00 (RW-2)	295	< 5.0	98.31%	7.61E-03	1232 (RW-1) 0 (RW-2)	1,141.46 <sup>(2)</sup>
	0.10 (RW-1) 0.00 (RW-2)	247	< 5.0	97.98%	6.19E-03	504 (RW-1) 0 (RW-2)	1,144.58
	9.28 (RW-1) 0.00 (RW-2)	250	6.0	97.60%	6.16E-03	1019 (RW-1) 0 (RW-2)	1,150.85 <sup>(2)</sup>
	2.64 (RW-1) 0.00 (RW-2)	207	< 5.0	97.58%	4.42E-03	650 (RW-1) 0 (RW-2)	1,153.72
	4.75 (RW-1) 0.00 (RW-2)	241	< 5.0	97.93%	5.39E-03	473 (RW-1) 0 (RW-2)	1,156.28
	3.71 (RW-1) 0.00 (RW-2)	231	< 5.0	97.83%	5.05E-03	923 (RW-1) 0 (RW-2)	1,160.94 <sup>(2)</sup>
	0.16 (RW-1) 0.00 (RW-2)	209	< 5.0	97.60%	4.19E-03	480 (RW-1) 0 (RW-2)	1,162.95
1	8.81 (RW-1) 0.00 (RW-2)	153	< 5.0	96.72%	2.96E-03	552 (RW-1) 0 (RW-2)	1,164.58
	0.21 (RW-1) 0.00 (RW-2)	205	< 5.0	97.56%	4.12E-03	1136 (RW-1) 0 (RW-2)	1,169.26 <sup>(2)</sup>
	9.96 (RW-1) 0.00 (RW-2)	308	< 5.0	98.38%	6.16E-03	317 (RW-1) 0 (RW-2)	1,171.21
	6.42 (RW-1) 0.00 (RW-2)	408	< 5.0	98.77%	7.43E-03	215 (RW-1) 0 (RW-2)	1,171.21
		277 (RW-1) 39.2 (RW-2)	< 5.0	95.36%	4.65E-03 (RW-1) 1.37E-03 (RW-2)	1,228 (RW-1) 838 (RW-2)	1,172.81 1,179.67 <sup>(2)</sup>
	9.22 (RW-1) 82.51 (RW-2)	91.9	< 5.0	94.56%	4.68E-03	483 (RW-1) 483 (RW-2)	
	4.64 (RW-1) 79.18 (RW-2)	97.6	< 5.0	94.88%	5.07E-03	718 (RW-1) 718 (RW-2)	1,181.93
	4.55 (RW-1) 79.22 (RW-2)	80.6	< 5.0	94.88%	5.07E-03 4.18E-03		1,185.57 1,188.67 <sup>(2)</sup>
	5.50 (RW-1) 78.57 (RW-2)	68.0	< 5.0	92.65%	4.18E-03 3.54E-03	740 (RW-1) 740 (RW-2) 0.75 (RW-1) 0.75 (RW-2)	
	9.98 (RW-1) 87.28 (RW-2)	81.0	< 5.0 < 5.0	93.83%	3.54E-U3 4.75E-03		1,188.67
	9.79 (RW-1) 86.99 (RW-2)	78.1	< 5.0			157 (RW-1) 157 (RW-2)	1,189.42
	9.38 (RW-1) 88.99 (RW-2)	78.1 89.1	< 5.0 < 5.0	93.60% 94.39%	4.56E-03 5.01E-03	754 (RW-1) 754 (RW-2)	1,192.85 <sup>(2)</sup>
	<del></del>	330 (RW-1) 15.0 (RW-2)	< 5.0 < 5.0			527 (RW-1) 527 (RW-2)	1,195.50
	6.12 (RW-1) 84.37 (RW-2)	152.8	< 5.0 < 5.0	98.48% 96.73%	1.46E-02 (RW-1) 6.21E-04 (RW-2) 1.30E-02	305 (RW-1) 408 (RW-2) 157 (RW-1) 157 (RW-2)	1,200.20 1,202.25

- NOTES:

  1. Total mass of VOC recovered through December 31, 2004 based on information contained in the Fourth Quarter 2004 Operation and Maintenance Report prepared by Blue Water Environmental Inc.

  2. Estimated through the end of the reporting period.

  3. Extraction well RW-2 restarted on 7/5/05 @16:20. Mass removal rates reflect operation of both extraction wells RW-1 and RW-2.

  4. Performance results for the reporting period are shaded.

  5. COMB-INF result approximated as average of 3/16/07 and 7/12/07 results due to laboratory reporting error.

ABBREVIATIONS gpm: gallons per minute ug/L: micrograms per liter lb/hr: pounds per hour

#### ATTACHMENT J

#### **MW-2S SAMPLING RESULTS**

Table 4.3: Groundwater VOC Results

Location	MW-	101	MW	<b>7-104</b>	MW	-104	MW	-106	MW	-107	MW	-108	ΜW	/-2S	DP	-08
Sample Date	11/28/2	2007	11/28	/2007	11/28	/2007	11/27	/2007	11/27	/2007	11/28	/2007	11/28	/2007	1/23/	/2008
Sample ID	AIMW	/101	AIM	W104	AIMW	104DUP	AIM	W106	AIM	W107	AIM	W108	AIM	W2S	AIG	W08
QC Code	FS		F	?S	F	D	F	S ,	F	S	F	S	F	Ş	F	S
Parameter	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Cis-1,2-Dichloroethene	5	U	5	U	5	U	260		5	U	5	U	530	J	5	U
Tetrachloroethene	5	UJ	77	J	74	J	64	J	5	UJ	. 5	UJ	120	J	. 5	U
trans-1,2-Dichloroethene	5	U	5	U	. 5	U	2	J	. 5	U	5	U	5	J	5	U
Trichloroethene	5	U	3	J	4	J	23		5	U	5	U	110	J	5	U
Vinyl chloride	5	U	5	U	5	U	4	J	5	U	5	U	25	U	5	U

#### Notes:

Results in microgram per liter (µg/L)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
QC Code:

FS = Field Sample FD = Field Duplicate

#### Qualifiers:

U = Not detected at a concentration greater than the reporting limit

J = Estimated value

Criteria = Values from Technical and Operational

Guidance Series (TOGS) 1.1.1, Ambient Water

Quality Standards and Guidance values and

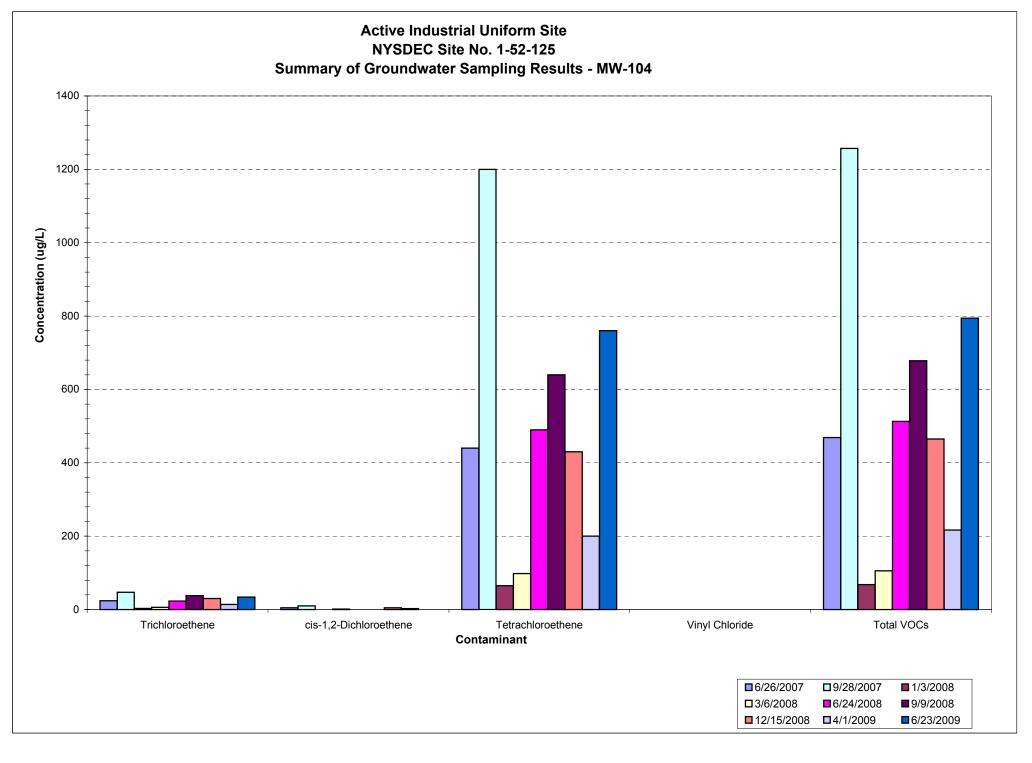
Groundwater Effluent Limitations (NYSDEC, 1998).

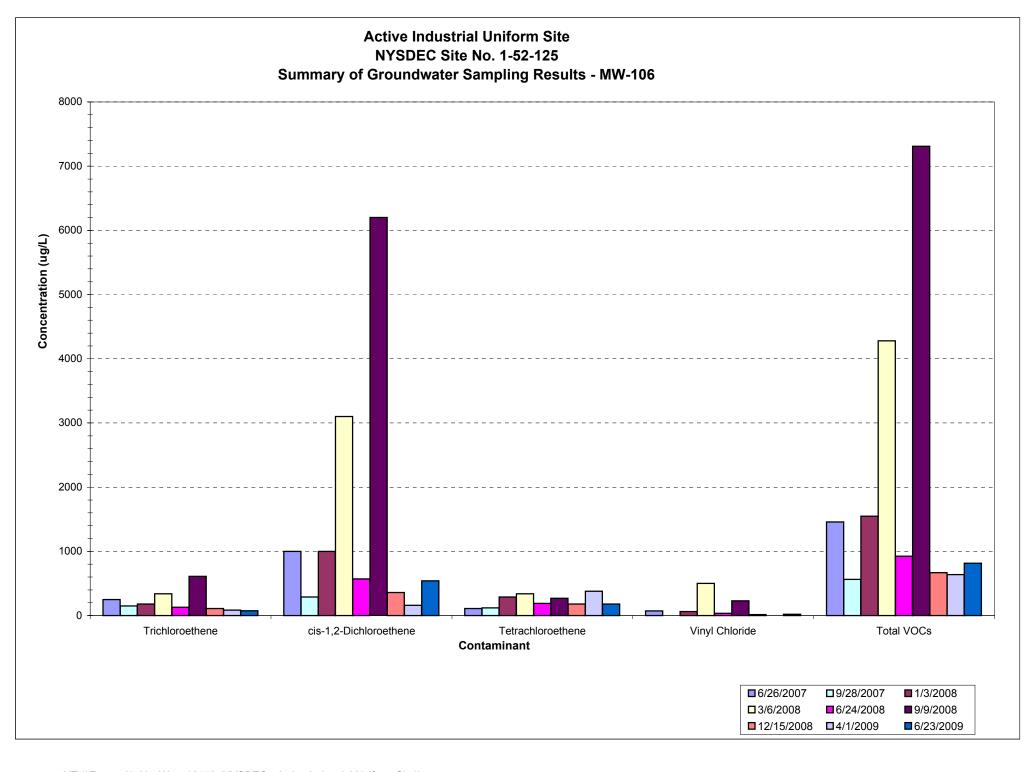
Detections are indicated in BOLD

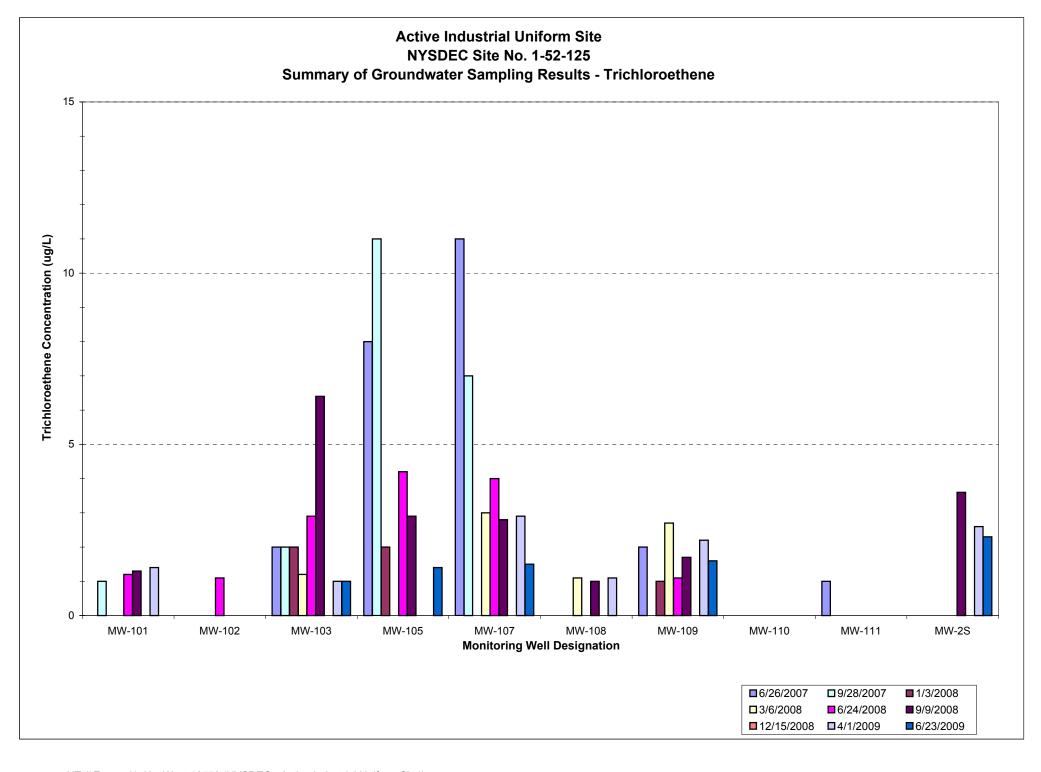
Highlighted results exceed criteria

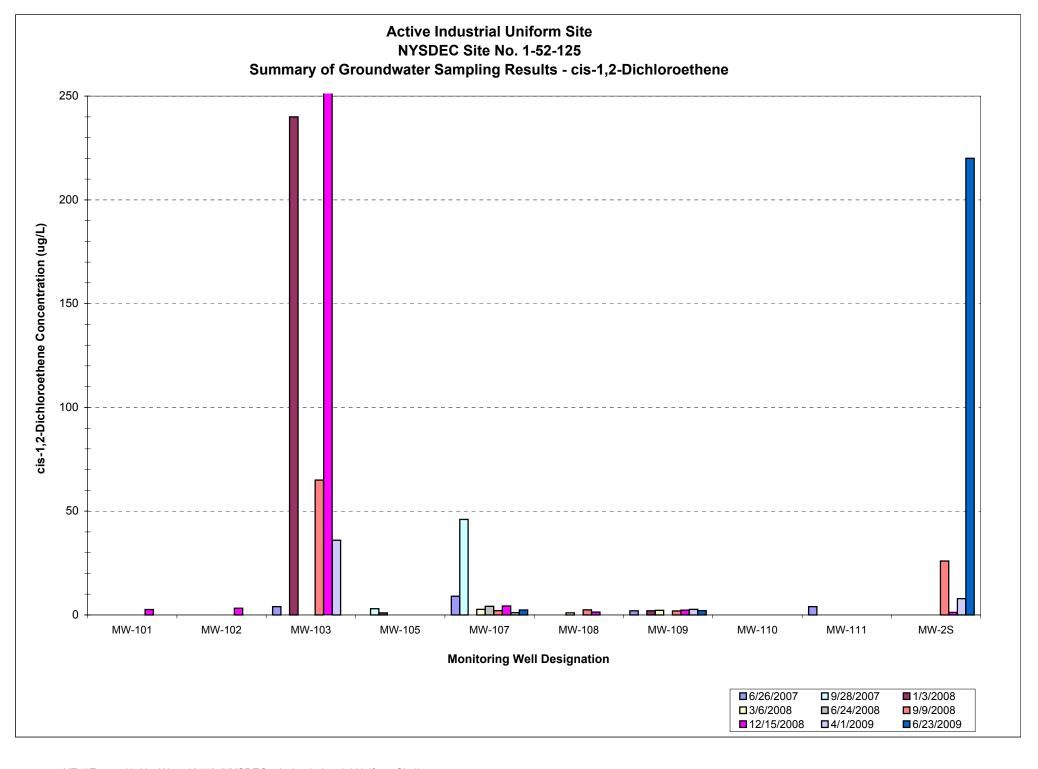
#### ATTACHMENT K

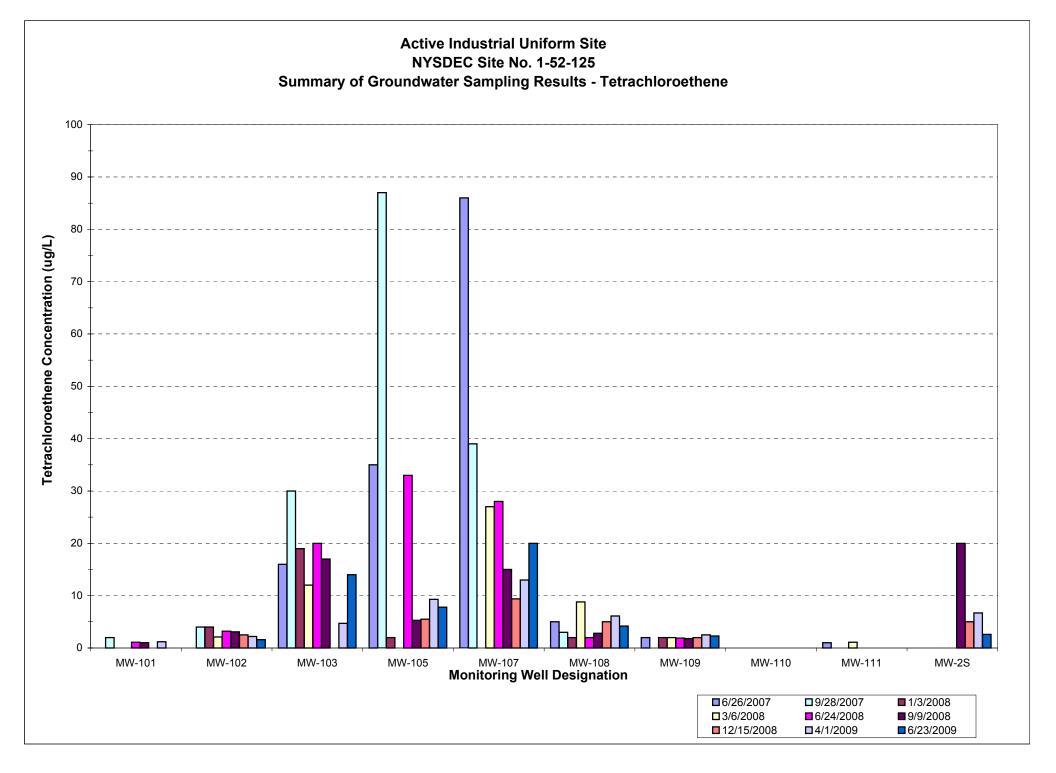
#### MONITORING WELL TREND BAR GRAPHS

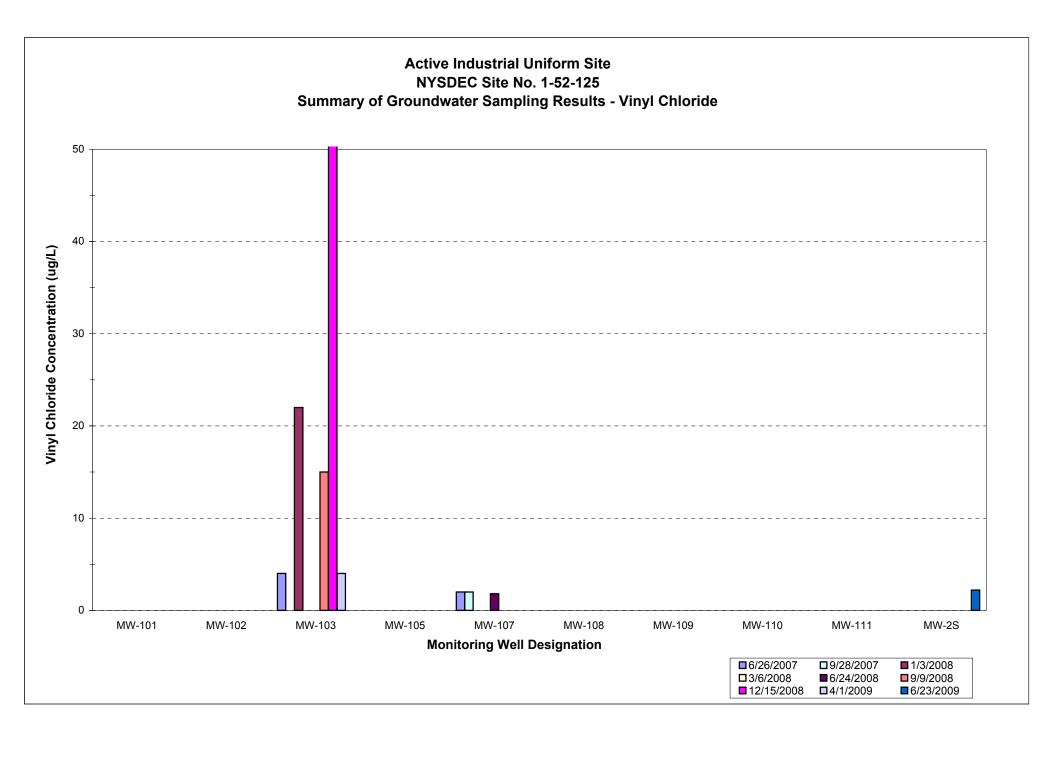


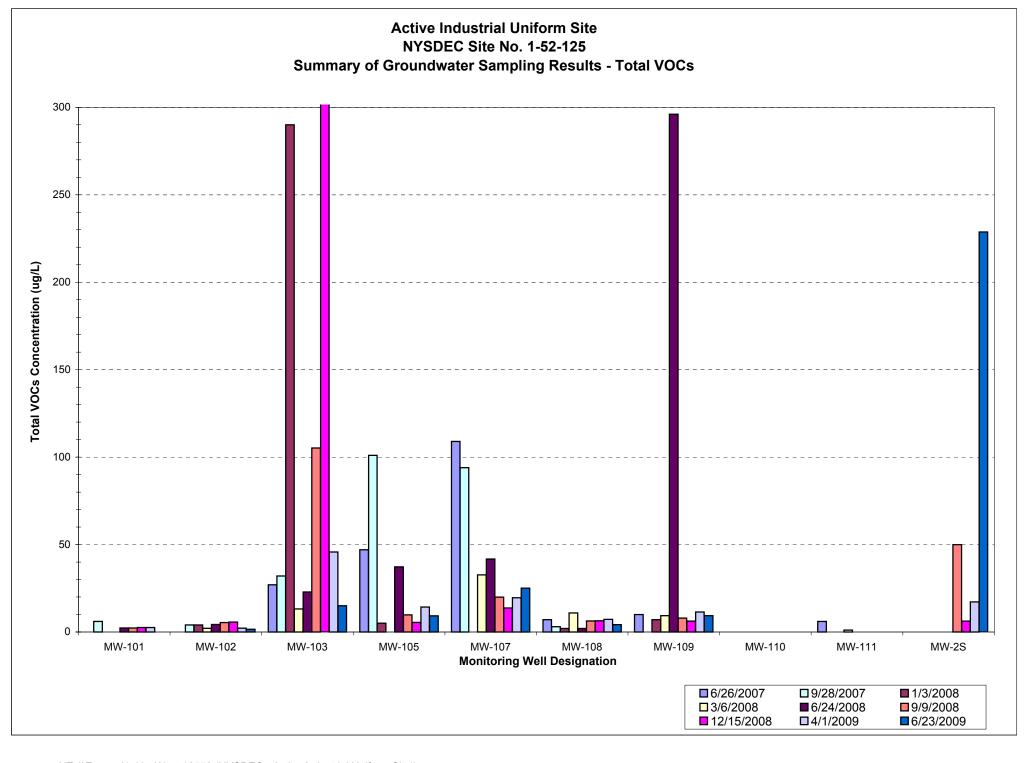












#### ATTACHMENT L

#### DATA VALIDATION CHECKLISTS

#### DATA VALIDATION CHECK LIST

Project Name:	Active Industrial		
Project Number:	2578-04		
Sample Date(s):	April 24, 2009		
Matrix/Number of Samples:	<u>Water/ 2</u> <u>Trip Blank/ 0</u>		·
Analyzing Laboratory:	Mitkem Laboratories, Warw	rick, RI	
Analyses:	Volatile Organic Compound Metals: USEPA ILM4.1	ls (VOCs): USEPA SW 846 method 8260	
Laboratory Report No:	SH0710	Date:5/26/2009	

#### **ORGANIC ANALYSES**

#### **VOCS**

	Reported Performance Acceptable			Not	
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks			1.		
A. Method blanks		X		X	
B. Trip blanks					X
C. Field blanks					X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		X	X		
7. LCS duplicate (LCSD) %R		X	X		
8. LCS/LCSD precision (RPD)		X		X	
9. Surrogate spike recoveries		X	X		
10. Instrument performance check		X	X		
11. Internal standard retention times and areas		X		X	
12. Initial calibration RRF's and %RSD's		X		X	
13. Continuing calibration RRF's and %D's		X	X		
14. Field duplicates RPD					X

VOCs - volatile organic compounds %R - percent recovery %D - percent difference

%RSD - percent relative standard deviation

RRF - relative response factor RPD - relative percent difference

Comments:

Performance was acceptable with the following exceptions:

- 6&7. The %R was below the QC limit of 75 % for benzene, 1,2-dichloropropane, 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane, n-propylbenzene, 2-chlorotoluene, 1,3,5-trimethylbenzene, 4-chlorotoluene, 1,2,4-trimethylbenzene, 4-isopropyltoluene and n-butylbenzene in the LCS and LCSD associated with COMB INFRE. These compounds were not detected in the sample and were qualified as estimated (UJ) in COMB INFRE.
- 9&10. The surrogate %R dibromfluoromethane was above QC limits in COMB INF and COMB INFRE. The COMB INF was outside tuning times and the reanalysis was within tuning times. The reanalysis was reported.

The %R was above the QC limit of 20 % for trichlorofluoromethane, 1,1,1-trichloroethane, carbon tetrachloride, tetrachloroethene, dibrochloromethane, and bromoform associated with all samples and bromommethane, chloroethane, iodomethane, 2,2-dichloropropane, chloroform 1,2-dichloroethane, trichloroethene, bromodichloromethane, 1,1,1,2-tetrachloroethane and isopropylbenzene in the continuing calibration associated with COMB INFRE. The above compounds were qualified as estimated (J/UJ) in associated samples.

#### **INORGANIC ANALYSES**

#### **METALS**

LIALO	Reported		Perfor Acce	Not	
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X	X		
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R		X		X	
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R		X	X		
9. Post digestive spike sample %R		X		X	
10. Duplicate %RPD		X	X		
11. Serial dilution check %D		X	X	•	<u> </u>
12. Field duplicates RPD					X

%R - percent recovery

%D - percent difference

RPD - relative percent difference

#### Comments:

Performance was acceptable, with the following exceptions:

- 2A. Barium, cobalt, copper, nickel and zinc were detected in preparation blanks and detected in COMB INF at concentration less than ten times the concentration found in the blanks which were qualified as non-detect (U).
- 8. The %R for cobalt, nickel and zinc were below QC limits in the spike sample. These metals were qualified as estimated (J/UJ) in COMB INF.
- 10. The %RPD for iron and selenium were above QC limits in the spike sample. These metals were qualified as estimated (J/UJ) in COMB INF.
- 11. The %D was above the QC limit of 10 % for the serial dilution sample for barium, iron, magnesium and manganese associated with COMB INF. These metals were qualified as estimated (J/UJ) in COMB INF.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 08/20/2009
VALIDATION PERFORMED BY SIGNATURE:	12- R

#### DATA VALIDATION CHECK LIST

Project Name:	Active Industrial		
Project Number:	2578-04		
Sample Date(s):	April 24, 2009		
Matrix/Number of Samples:	<u>Air/ 3</u>		
Analyzing Laboratory:	Con-test Analytical Labora	atory, East Longmeadow, MA	
Analyses:	Volatile Organic Compou	nds (VOCs): TO15	
Laboratory Report No:	25054	Date:5/5/2009	

## ORGANIC ANALYSES VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Method blanks		X	X		
3. Matrix spike (MS) %R				·	X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		X		X	
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X		X	
10. Initial calibration RRF's and %RSD's	1	X		X	
11. Continuing calibration RRF's and %D's		X	X		
12. Field duplicates RPD					X

VOCs - volatile organic compounds %R - percent recovery %D - percent difference

%RSD - percent relative standard deviation

RRF - relative response factor RPD - relative percent difference

#### Comments:

Performance was acceptable with the following exceptions:

- 2. Acetone, ethanol, methylene chloride, propene, and 2-butanone were detected in the method blank. Ethanol, methylene chloride, and 2-butanone were qualified as non-detect (U) in VPCV-EFF, VPCV-INF and VPCV-MID. Acetone was qualified as non-detect (U) in VPCV-MID.
- 11. The %R for isopropanol was above the QC limit of 30 % for in the continuing calibration associated with all samples. Isopropanol was qualified as estimated (J) in sample VPCV-EFF, VPCV-INF, and VPCV-MID.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 05/27/2009
VALIDATION PERFORMED BY SIGNATURE:	10-P
PEER REVIEW BY & DATE:	Robbin Petrella 06/01/2009

#### DATA VALIDATION CHECK LIST

Project Name:	Active Industrial	
Project Number:	2578-04	
Sample Date(s):	May 14, 2009	
Matrix/Number of Samples:	<u>Water/ 2</u> <u>Trip Blank/ 0</u>	
Analyzing Laboratory:	Mitkem Laboratories, War	wick, RI
Analyses:	Volatile Organic Compour Metals: USEPA ILM4.1	nds (VOCs): USEPA SW 846 method 8260
Laboratory Report No:	SH0852	Date:5/29/2009

## ORGANIC ANALYSES VOCS

	Rep	orted	ı	rmance eptable	Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks					X <sup>*</sup>
C. Field blanks					X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		X		X	
7. LCS duplicate (LCSD) %R		X		X	
8. LCS/LCSD precision (RPD)		X		X	
9. Surrogate spike recoveries		X		X	
10. Instrument performance check		X		X	
11. Internal standard retention times and areas		X		X	
12. Initial calibration RRF's and %RSD's		X	X		
13. Continuing calibration RRF's and %D's		X	X		
14. Field duplicates RPD					X

VOCs - volatile organic compounds %R - percent recovery %D - percent difference

%RSD - percent relative standard deviation

RRF - relative response factor RPD - relative percent difference

#### Comments:

Performance was acceptable with the following exceptions:

- 12. The %RSD was above the QC limit of 20 % for 2-butanone in the initial calibration. 2-Butanone was not detected in the samples and therefore did not impact the usability of the reported sample results.
- 13. The %R was above the QC limit of 20 % for dichlorodifluoromethane, 2-butanone and 1,2,3-trichloropropane in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in associated samples.

## INORGANIC ANALYSES METALS

	Rep	orted		mance ptable	Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X	· X		
B. Field blanks		]			X
3. Initial calibration verification %R		X ]		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R		X		X	
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R					X
9. Post digestive spike sample %R					X
10. Duplicate %RPD					X
11. Serial dilution check %D					X
12. Field duplicates RPD					X

%R - percent recovery

%D - percent difference

RPD - relative percent difference

#### Comments:

Performance was acceptable, with the following exception:

2A. Antimony, chromium and zinc were detected in preparation blanks and detected in COMB INF at concentration less than ten times the concentration found in the blanks which were qualified as non-detect (U).

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 08/20/2009
VALIDATION PERFORMED BY SIGNATURE:	10

#### DATA VALIDATION CHECK LIST

Project Name:	Active Industrial	·	
Project Number:	2578-04		
Sample Date(s):	May 14, 2009		
Matrix/Number of Samples:	<u>Air/ 3</u>		
Analyzing Laboratory:	Con-test Analytical Laborator	y, East Longmeadow, MA	
Analyses:	Volatile Organic Compounds	<u>VOCs):</u> TO15	
Laboratory Report No:	09E0348	Date:6/22/2009	

### ORGANIC ANALYSES VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X :	
2. Method blanks		X	X		
3. Matrix spike (MS) %R		·			X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		X	X		
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X		X	
10. Initial calibration RRF's and %RSD's		Х		X	
11. Continuing calibration RRF's and %D's	1	X	X		
12. Field duplicates RPD					X

VOCs - volatile organic compounds %R - percent recovery %D - percent difference

%RSD - percent relative standard deviation

RRF - relative response factor RPD - relative percent difference

#### Comments:

Performance was acceptable with the following exceptions:

- 2. Acetone, ethanol and methylene chloride were detected in the method blank. Ethanol and methylene chloride were qualified as non-detect (U) in EFF, INF and MID. Acetone was qualified as non-detect (U) in MID.
- 6. The %R was above QC limits for benzyl chloride and bromoform. They were not detected in the samples and therefore qualification of the data was not necessary.
- 11. The %D for bromomethane was above the QC limit of 30 % for in the continuing calibration associated with all samples. Bromomethane was qualified as estimated (J/UJ) in all samples.

VALIDATION PERFORMED BY & DATE:	_
VALIDATION PERFORMED BY SIGNATURE:	1-Pr

#### DATA VALIDATION CHECK LIST

Project Name:	Active Industrial	
Project Number:	2578-04	
Sample Date(s):	June 23 & 24, 2009	
Matrix/Number of Samples:	Water/ 16 Trip Blank/ 0	
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI	
Analyses:	<u>Volatile Organic Compounds (VOCs):</u> USEPA SW 846 method 8260 <u>Metals and Wet Chem:</u> Metals by USEPA method ILM4.1 and Total dissolved and suspended solids by method 2540 and COD by method 5220.	<b>1</b>
Laboratory Report No:	SH1137 Date:7/8/2009	

### ORGANIC ANALYSES

#### **VOCS**

	Reported		Performance Acceptable		Not	
	No	Yes	No	Yes	Required	
1. Holding times		X		X		
2. Blanks						
A. Method blanks		X		X		
B. Trip blanks					X	
C. Field blanks					X	
3. Matrix spike (MS) %R					X	
4. Matrix spike duplicate (MSD) %R					X	
5. MS/MSD precision (RPD)					X	
6. Laboratory Control Sample (LCS) %R	1	Х	X			
7. LCS duplicate (LCSD) %R		X	X			
8. LCS/LCSD precision (RPD)		X		X		
Surrogate spike recoveries		X	X			
10. Instrument performance check		X		X		
11. Internal standard retention times and areas		X		X		
12. Initial calibration RRF's and %RSD's		X		X		
13. Continuing calibration RRF's and %D's		X		X		
14. Field duplicates RPD				DE 14	X	

VOCs - volatile organic compounds

%D - percent difference

%RSD - percent relative standard deviation

RRF - relative response factor

RPD - relative percent difference

#### Comments:

%R - percent recovery

Performance was acceptable with the following exceptions:

Sample results associated with a compound that exhibited a caoncetration greater than the linear range of the instrument calibraton are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
MW-25	Cis-1,2-dichloroethene	220 E	220 D	220 D

6&7. The %R was below the QC limit of 75 % for iodomethane, 1,2-dibromoethane and chlorobenzene in the LCS and LCSD associated with MW-106 and MW-104. These compounds were not detected in the sample and were qualified as estimated (UJ) in MW-106 and MW-104.

The %R was above the QC limit of 125 % for 1,2,3-trichlorobenzene and naphthalene in the LCS and LCSD associated with MW-111, MW-25, MW-105 and MW-103. 1,2,3-Trichlorobenzene and naphthalene were not detected in the samples and therefore did not impact the usability of the reported sample results.

9. The surrogate %R dibromfluoromethane was slightly above QC limits in MW-105 and MW-103. Qualification of the data was not necessary.

### INORGANIC ANALYSES METALS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X	X		
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R		X		X	
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R		X		X	
9. Post digestive spike sample %R					. X
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X	X		
12. Field duplicates RPD					X

%R - percent recovery

%D - percent difference

RPD - relative percent difference

#### Comments:

Performance was acceptable, with the following exception:

- 2A. Copper and iron were detected in preparation blanks and detected in samples at concentration less than ten times the concentration found in the blanks. Copper in COMB INF, EFF, RW-1 and RW-2; and iron in EFF and RW-1 were qualified as non-detect (U).
- 11. The %D was above the QC limit of 10 % for the serial dilution sample for magnesium and manganese associated with all samples. Magnesium and manganese was qualified as estimated (J/UJ) in all samples.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 08/20/2009
VALIDATION PERFORMED BY SIGNATURE:	10, ~ R_

#### DATA VALIDATION CHECK LIST

Project Name:	Active Industrial				
Project Number:	2578-04				
Sample Date(s):	June 24, 2009				
Matrix/Number of Samples:	<u>Air/3</u>				
Analyzing Laboratory:	Con-test Analytical Laboratory, East Longmeadow, MA				
Analyses:	Volatile Organic Compounds (VOCs): TO15				
Laboratory Report No:	09F0506	Date:7/9/2009			

#### **ORGANIC ANALYSES**

#### vocs

	Reported		Performance Acceptable		Not	
100	No	Yes	No	Yes	Required	
1. Holding times		X		X		
2. Method blanks		X	X			
3. Matrix spike (MS) %R					X	
4. Matrix spike duplicate (MSD) %R					X	
5. MS/MSD precision (RPD)					X	
6. Laboratory Control Sample (LCS) %R		X	X			
7. Surrogate spike recoveries		X		X		
8. Instrument performance check		X		X	<u> </u>	
9. Internal standard retention times and areas		X		X		
10. Initial calibration RRF's and %RSD's		X	X		]	
11. Continuing calibration RRF's and %D's		X	X		<u> </u>	
12. Field duplicates RPD					X	

VOCs - volatile organic compounds %R - percent recovery %D - percent difference

%RSD - percent relative standard deviation

RRF - relative response factor RPD - relative percent difference

#### Comments:

Performance was acceptable with the following exceptions:

- 2. Acetone and methylene chloride were detected in the method blank. Methylene chloride was qualified as non-detect (U) in EFF, INF and MID.
- 6. The %R was above QC limits for 1,2,4-trichlorobenzene. 1,2,4-Trichlorobenzene was not detected in the samples and therefore qualification of the data was not necessary.
- 10. The %RSD for acetone and ethanol were above the QC limit of 40 % for in the initial calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.
- 11. The %RSD for benzyl chloride and 1,2,4-trichlorobenzene were above the QC limit of 30 % for in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 07/20/2009
VALIDATION PERFORMED BY SIGNATURE:	10 - Pr
PEER REVIEW BY & DATE:	Robbin Petrella 8/7/2009