

330 Crossways Park Drive, Woodbury, New York 11797-2015 516-364-9890 • 718-460-3634 • Fax: 516-364-9045 www.dvirkaandbartilucci.com

## **Board of Directors**

Henry J. Chlupsa, P.E. President & Chairman

Steven A. Fangmann, P.E., BCEE Executive Vice President

Robert L. Raab, P.E. Vice President

## **Vice Presidents**

Richard M. Walka Senior Vice President

Dennis F. Koehler, P.E.

Joseph H. Marturano

Senior Vice President
Garrett M. Byrnes, P.E.

Vice President
Thomas P. Fox, P.G.

Vice President

William D. Merklin, P.E. Vice President

Harvey P. Moutal, P.E.,BCEE Vice President

Michael Neuberger, P.E. Vice President

Kenneth J. Pritchard, P.E. Vice President

Theodore S. Pytlar, Jr. Vice President

Michael E. Urtnowski Vice President

Brian M. Veith, P.E. Vice President

Charles J. Wachsmuth, P.E. Vice President

## **Senior Associates**

Steven M. Cabrera
Christopher M. Clement
Rob J. DeGiorgio, P.E., CPESC
Joseph A. Fioraliso, P.E.
Michael R. Hofgren
Richard W. Lenz, P.E.
Philip R. Sachs, P.E.

## Daniel Shabat, P.E. Associates

Joseph F. Baader
Rudolph F. Cannavale
Ellen R. DeOrsay
Matthew R. DeVinney, P.E.
Frank DeVita
Christopher W. Francis
Christopher Koegel
Christopher M. LeHanka
James J. Magda
Olga Mubarak-Jaramillo
Roger W. Owens
Robbin A. Petrella
Edward J. Reilly
Jason R. Tonne

April 12, 2011

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. 19

July 1, 2009 through September 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 July 1, 2009 through September 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 above-referenced Work Assignment.

## Groundwater Extraction and Treatment System Operations and Maintenance

During this reporting period, on-site extraction well RW-1 operated at an average pumping rate of approximately 68 gallons per minute (gpm) and off-site extraction well RW-2 operated at an average pumping rate of approximately 83 gpm. Note, as described below, a malfunction at transfer pump #2 caused the treatment system to be inoperative for approximately 90% of this reporting period. Normalized graphs of the average flow rates for RW-1 and RW-2 since May 2009 and August 2008, respectively, are presented in Attachment B. Based on a review of the data, the flow rates for RW-1 and RW-2 continue to show an increasing trend through the end of this reporting period. Approximately 2.74 pounds of total VOCs were removed from the extracted groundwater during this reporting period and approximately 1,205 pounds of total VOCs have been removed since start-up of the system.

CONSULTING ENGINEERS

Mr. Payson Long Division of Environmental Remediation New York State Department of Environmental Conservation April 12, 2011 Page 2

The average total VOC removal efficiency for this quarter was approximately 97 percent.

A summary of the extraction and treatment system performance results for this period is provided in Attachment C. A graph of the mass contaminant removal rate over time based on the estimated average total VOC removal rate is also provided in Attachment C.

Approximately 2,153,290 gallons of treated groundwater was discharged to Little Neck Creek during this period. Note that the groundwater extraction system was inoperative for approximately 1,997 hours (approximately 90% of this reporting period) due to two system alarm conditions. Of the 1,997 hours, approximately 2.5 hours of "downtime" was due to a high level condition in air stripper #1 and approximately 1,994 hours of "downtime" was due to a high level condition in the building central drainage sump. The water accumulating in the sump was traced to a malfunction and leak at effluent transfer pump #2. In an e-mail correspondence dated July 10, 2009, D&B informed the NYSDEC of the effluent transfer pump fault and indicated that the treatment system was shut down. In an e-mail correspondence dated July 15, 2009, the NYSDEC indicated that Environmental Assessment and Remediation (EAR), a NYSDEC call-out Contractor, would be completing an assessment and/or replacement of effluent transfer pump #2.

EAR investigated the effluent transfer pump failure during two different site visits completed on July 22 and 24, 2009. During these site visits, D&B recommended that several additional system repair items be completed, including the replacement of several non-pressure rated pipe fittings and the replacement of a leaking moisture knock-out drum. Upon NYSDEC approval, EAR completed the replacement of the effluent transfer pump and piping repairs on August 17, 2009 and D&B was on-site to restart and test the system with EAR. Upon restart of the system, it was noted that the effluent transfer pump #2 motor, which was not replaced as part of the pump replacement, was also malfunctioning and needed to be replaced. The system was shut down and the NYSDEC was notified of the problem via e-mail correspondence dated August 18, 2009.

EAR completed the replacement of the malfunctioning transfer pump motor, as well as installation of a newly fabricated moisture knock-out drum, on September 11, 2009. Following completion of this work, D&B met with EAR to restart the system. Upon system restart, a leak was noted on a fitting in the effluent piping. In addition, the influent flow meter for extraction well RW-2 was not registering influent flow. The system was shut down and the NYSDEC was notified of the problem via e-mail correspondence.

**CONSULTING ENGINEERS** 

Mr. Payson Long Division of Environmental Remediation New York State Department of Environmental Conservation April 12, 2011 Page 3

EAR completed repairs of the effluent piping and an investigation of the malfunctioning influent flow meter on October 2, 2009. Following the completion of this work, D&B met with EAR to restart the system. Upon system restart, all equipment appeared to be in normal operating condition, with the exception of the blower influent vacuum gauge, which was not registering a blower vacuum. Inspection of the gauge revealed a white powder within the gauge tubing and gauge port resulting in the blockage of the tubing and possible fouling of the gauge. However, extraction wells RW-1 and RW-2 were operating at an extraction rate of approximately 90.5 gallons per minute (gpm) and 83.6 gpm, respectively, which is within the design flow rate range of 80 to 100 gpm, as specified in the Active Industrial Uniform Site Contract Documents.

In addition, the RW-2 influent flow meter was registering flow upon system restart; however, D&B has observed intermittent problems with this flow meter since that time. As such, and as is detailed in the recommendations section, it is recommended to further assess this problem and replace the flow meter if warranted.

A summary of system alarm conditions and downtime is provided in Attachment D and copies of system maintenance photo logs and correspondence are provided in Attachment E.

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

Monthly groundwater samples were not collected during this reporting period due to the 1,997 hours of treatment system downtime from July 9, 2009 through the end of this reporting period.

## Groundwater Extraction and Treatment System Sampling (Air)

Monthly air samples were not collected this reporting period due to the 1,997 hours of treatment system downtime from July 9, 2009 through the end of this reporting 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 September 28, 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

**CONSULTING ENGINEERS** 

Mr. Payson Long Division of Environmental Remediation New York State Department of Environmental Conservation April 12, 2011 Page 4

part of a Vapor Intrusion Investigation completed by the NYSDEC and has continued 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 on Figure 2, provided in Attachment A. The locations of the off-site monitoring wells are shown on 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 G.

Concentrations of total VOCs detected in the on-site monitoring wells ranged from 1.1 ug/l in groundwater monitoring well MW-101 to a maximum concentration of 910 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 and guidance values of 5.0 ug/l, respectively; cis-1,2-dichloroethene (cis-1,2-DCE), tetrachloroethene (PCE) and trichloroethene (TCE). The maximum concentrations of cis-1,2-DCE (270 ug/l) and TCE (400 ug/l) were detected in groundwater monitoring well MW-106, located in the southeast corner of the site. The maximum concentration of PCE (610 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 groundwater monitoring wells MW-101, MW-102 or MW-108.

Concentrations of cis-1,2-DCE (310 ug/l), TCE (22 ug/l) and PCE (11 ug/l) were detected above their respective Class GA groundwater standards of 5.0 ug/l in off-site groundwater monitoring well MW-2S, located on the corner of Thompson Avenue and Lane Street. Concentrations of cis-1,2-DCE (2.0 ug/l), 1,1-dichloroethane (1.1 ug/l), TCE (1.6 ug/l), methyl tert-butyl ether (MTBE) (1.3 ug/l) and PCE (1.8 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 H includes graphs which summarize historical concentrations of total VOCs, cis-1,2-DCE, PCE, TCE and vinyl chloride (VC) detected in the on-site and off-site monitoring wells from September 2007 through September 2009. Note that the greatest concentrations of VOCs have primarily been detected above their respective standards and guidance values in on-site monitoring wells MW-104 and MW-106. Therefore, separate graphs have been provided for these two monitoring wells in Attachment H. Off-site, concentrations of these compounds have historically been detected below their respective

CONSULTING ENGINEERS

Mr. Payson Long Division of Environmental Remediation New York State Department of Environmental Conservation April 12, 2011 Page 5

groundwater standards in MW-109 and MW-111. Based on a review of the concentrations of VOCs detected in MW-2S, total VOCs have generally decreased in concentration since November 2007; however, since D&B began sampling MW-2S in September 2008, VOCs have exhibited a general increase in concentration. This may be attributable to the significant amount of downtime of on-site extraction well RW-1 and the overall treatment system downtime due to the fouling of RW-1 and various system equipment failures occurring throughout the past year.

## **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. All sample results have been deemed valid and usable for environmental assessment purposes.

Data Validation Checklists are presented in Attachment I.

## **Findings**

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

- Five of the eight on-site monitoring wells exhibited 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, TCE and PCE 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 a cursory windshield 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 modified since system start-up in December 2001. A new DER-10 document, dated November 2009, has been implemented since the March 1998 ROD was issued.

CONSULTING ENGINEERS

Mr. Payson Long Division of Environmental Remediation New York State Department of Environmental Conservation April 12, 2011 Page 6

• The toxicity data, cleanup levels and remedial action objectives, as defined in the March 1997 Record of Decision, have not been modified.

## 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 concentration (and, therefore, overall system effectiveness), it is recommended to install 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 Active Industrial Periodic Review Report. A figure depicting the proposed well locations is provided in Attachment J.
- Continue to monitor VOC concentrations in off-site monitoring well MW-2S in order to ensure that the groundwater extraction and treatment system is capturing VOCs which have the potential to migrate off-site. Note that extraction well RW-1 had been pumping at a reduced flow rate due to iron fouling of the well screen. As stated in Quarterly Report No. 18, 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, given the treatment system continues to operate as designed.
- Replace the effluent filter in order to prevent a recurrence of the leak identified in June 2009 that was noted in Quarterly Report No. 18.
- Further diagnosis of the intermittent flow register problems noted at the RW-2 flow meter.
- Replace the fouled blower influent vacuum gauge and its associated tubing.

CONSULTING ENGINEERS

Mr. Payson Long Division of Environmental Remediation New York State Department of Environmental Conservation April 12, 2011 Page 7

In accordance with the division of Environmental Remediation (DER)-31 Green Remediation Policy the following recommendations have been provided in order to minimize the environmental footprint and increase the efficiency of the overall treatment system, and at the same time, decrease cost associated with the operation and maintenance of the treatment system:

- In order to reduce the treatment system electrical consumption, it is recommended to evaluate the current influent water quality, stripper efficiency and blower output. Based on current influent water quality and stripper efficiency, it may be warranted to reduce the blower output, and therefore the treatment system electrical consumption, while still continuing to provide adequate blower output to remove VOCs in treatment system water to concentrations below the site-specific effluent limits. Based on the results of the evaluation, and in order to adjust the blower output, it may be warranted to install a variable frequency drive (VFD) on the blower motor.
- In order to reduce the treatment system electrical consumption, it is recommended to install high efficiency light bulbs in all interior and exterior lighting fixtures.
- In order to reduce the treatment system electrical consumption, it is recommended to install motion sensor lighting on the building exterior.
- In order to reduce the treatment system natural gas consumption, it is recommended to ensure the treatment system thermostat be set at a target temperature which is not excessively high during the winter months, but will still prevent the treatment system piping from freezing upon shutdown.

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

Very truly yours,

Scotier

Stephen Tauss Project Manager

SET/PM/abl Attachments

cc:

R. Walka (D&B)

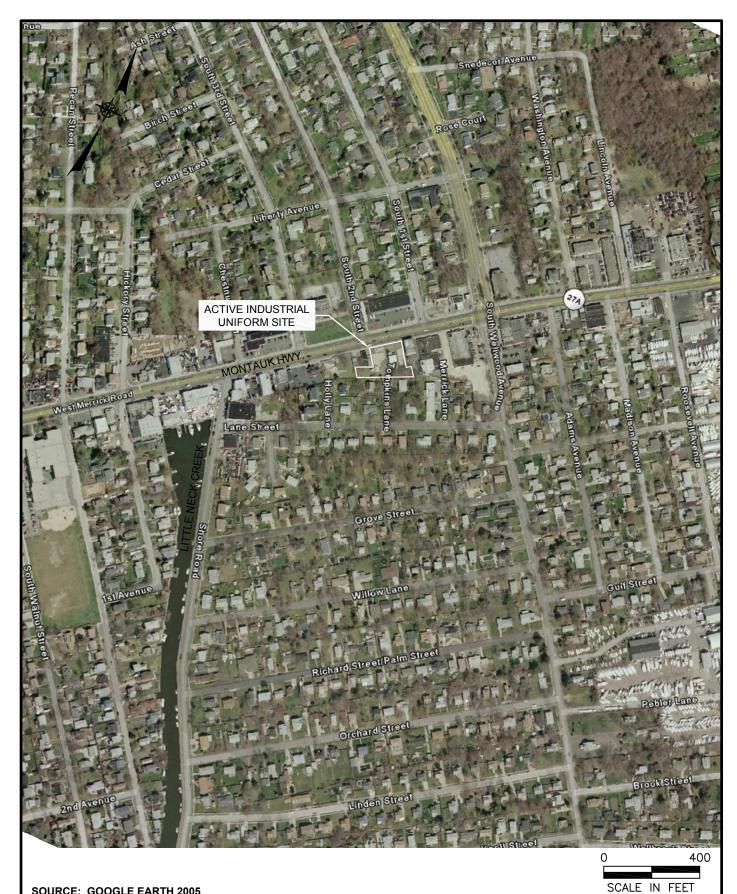
P. Martorano (D&B)

F. DeVita (D&B)

♦2578\SET12029-PL QR19.doc(R18)

## ATTACHMENT A

FIGURES



**SOURCE: GOOGLE EARTH 2005** 



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

**SITE LOCATION MAP** 

FIGURE 1-1



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

## NORMALIZED GRAPHS OF AVERAGE FLOW RATE FOR RW-1 AND RW-2

Active Industrial Uniform Site NYSDEC Site No. 1-52-125
Extraction Well RW-1

Active Industrial Unfirom Site NYSDEC Site No. 1-52-125
Extraction Well RW-2

## ATTACHMENT C

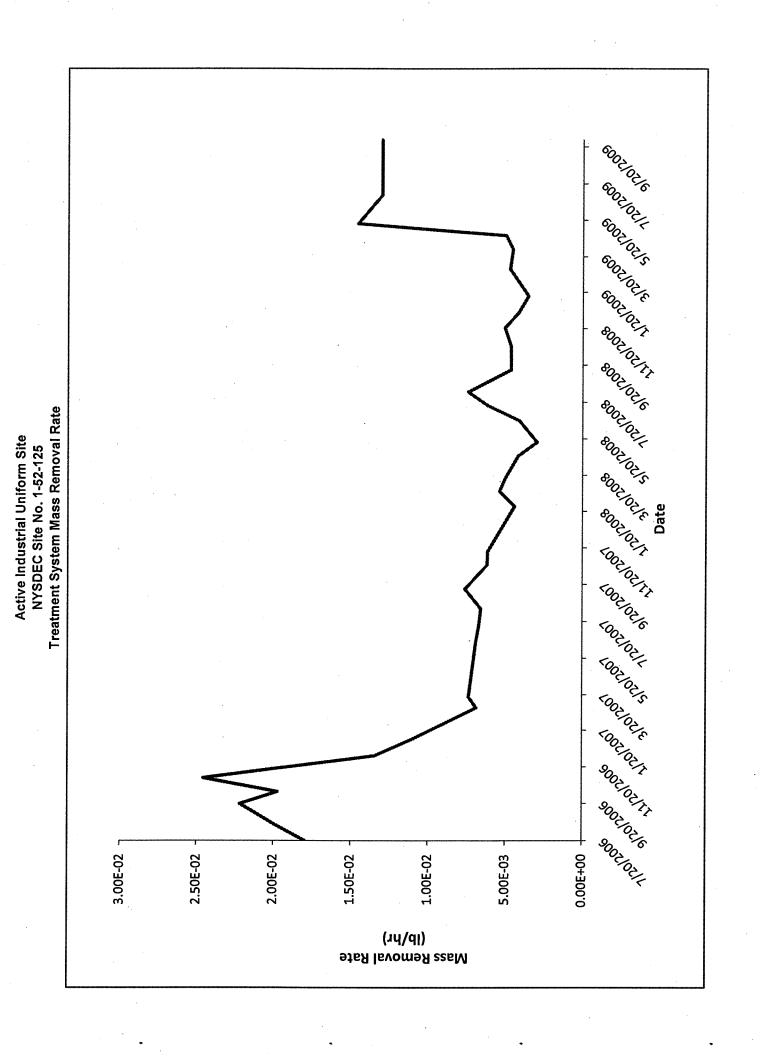
## PERFORMANCE SUMMARY

# ACTIVE INDUSTRIAL UNIFORM SITE NYSDEC SITE NO. 1-52-125 EXTRACTION AND TREATMENT SYSTEM PERFORMANCE RESULTS - AQUEOUS

		Τ			Γ		Τ	Γ												Γ	Γ									l				
CUMULATIVE TOTAL VOC	REMOVAL	1.040.86	1.055.23	1.077.73 (2)	1,081,85	1.095.35	1 114 41 (2)	1.115.35	1,120.54	1,124,26 (2)	1,125,73 (2)	1,127.52	1.132.08	1,141,46 (2)	1.144.58	1,150.85 (2)	1 153 72	1.156.28	1,160.94 (2)	1.162.95	1,164.58	1,169.26 (2)	1,171.21	1,172.81	1,179.67 (2)	1,181.93	1,185.57	1,188.67 (2)	1,188.67	1,189.42	1.192.85 (2)	1,195.50	1,200.20	1,202.25
ATED TEM	IIME	0 (RW-2)	96 (RW-2)	1016 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	0 (RW-2)	838 (RW-2)	483 (RW-2)	718 (RW-2)	740 (RW-2)	0.75 (RW-2)	157 (RW-2)	754 (RW-2)	527 (RW-2)	408 (RW-2)	157 (RW-2)
ESTIMATED SYSTEM	RUNTIME	473 (RW-1)	719 (RW-1)	1016 (RW-1)	209 (RW-1)	550 (RW-1)	1418 (RW-1)	85 (RW-1)	756 (RW-1)	505 (RW-1)	213 (RW-1)	266 (RW-1)	692 (RW-1)	1232 (RW-1)	504 (RW-1)	1019 (RW-1)	650 (RW-1)	473 (RW-1)	923 (RW-1)	480 (RW-1)	552 (RW-1)	1136 (RW-1)	317 (RW-1)	215 (RW-1)	1,228 (RW-1)	483 (RW-1)	718 (RW-1)	740 (RW-1)	0.75 (RW-1)	157 (RW-1)	754 (RW-1)	527 (RW-1)	305 (RW-1)	157 (RW-1)
ESTIMATED AVERAGE TOTAL VOC	REMOVAL RATE (lb/hr)	1.805-02	2.00E-02	2.22E-02	1.97E-02	2.45E-02	1.34E-02	1.10E-02	6.87E-03	7.36E-03	6.91E-03	6.72E-03	6.59E-03	7.61E-03	6.19E-03	6.16E-03	4.42E-03	5.39E-03	5.05E-03	4.19E-03	2.96E-03	4.12E-03	6.16E-03	7.43E-03	4.65E-03 (RW-1) 1.37E-03 (RW-2)	4.68E-03	5.07E-03	4.18E-03	3.54E-03	4.75E-03	4.56E-03	5.01E-03	1.46E-02 (RW-1) 6.21E-04 (RW-2)	1.30E-02
TOTAL VOC REMOVAL	EFFICIENCY (%)	%60'66	98.06%	98.30%	99.25%	99.40%	98.95%	98.77%	97.95%	98.22%	98.14%	98.05%	98.01%	98.31%	97.98%	92.60%	97.58%	97.93%	97.83%	97.60%	96.72%	97.56%	98.38%	98.77%	95.36%	94.56%	94.88%	93.80%	92.65%	93.83%	93.60%	94.39%	98.48%	96.73%
SYSTEM EFFLUENT TOTAL VOC	CONCENTRATION (ug/L)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	6.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
SYSTEM INFLUENT TOTAL	(ug/L)	550	258	294	999	840	474	405	244	281	269 (4)	257	251	295	247	250	207	241	231	209	153	205	308		277 (RW-1) 39.2 (RW-2)	91.9	97.6	80.8	68.0	81.0	78.1	89.1	330 (RW-1) 15.0 (RW-2)	152.8
SYSTEM INFLUENT AVERAGE EXTRACTION RATE	(dbm)	65.32 (RW-1) 0.00 (RW-2)	63.60 (RW-1) 91.30 (RW-2)	60.33 (RW-1) 90.31 (RW-2)		58.40 (RW-1) 0.00 (RW-2)				- 1		-	- 1			49.28 (RW-1) 0.00 (RW-2)	42.64 (RW-1) 0.00 (RW-2)	44.75 (RW-1) 0.00 (RW-2)		40.16 (RW-1) 0.00 (RW-2)		40.21 (RW-1) 0.00 (RW-2)				- 1	- 1	_1	_ [	- 1	29.79 (RW-1) 86.99 (RW-2)	29.38 (RW-1) 83.02 (RW-2)	88.43 (RW-1) 82.80 (RW-2)	86.12 (RW-1) 84.37 (RW-2)
SAMPLE	DATE	7/20/2006	8/17/2006	9/19/2006	10/9/2006	11/1/2006	12/8/2006	1/5/2007	2/26/2007	3/16/2007	6/15/2007	7/12/2007	8/10/2007	9/12/2007	10/22/2007	11/13/2007	1/28/2008	2/22/2008	3/14/2008	4/21/2008	5/14/2008	6/19/2008				1						4/24/2009	1	6/24/2009

NOTES:
2. Estimated through the end of the reporting period.
3. Performance results for the reporting period are shaded.
4. COMB-INF concentration approximated from 6/24/09 sample results.

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



## APPENDIX D

## **DESCRIPTION OF SYSTEM ALARM CONDITIONS**

## 12/2/2009 3:23 PM

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

				 <del></del>		 	 		 	 	<u> </u>	 	_
	CAUSE FOR SHUTDOWN	Alarm condition 3 & 5: Reset VFDs. Hand pumped strippers #1 and #2 to low level. Restarted system.	Alarm condition 3: High level in sump due to leak from transfer pump #2; system shutdown to repair/replace transfer pump #2, repair non-pressure rated pipe fitting and broken valves, and repair/replace the moisture knock-out drum tank.(1)										
PECTADT	DATE/TIME	7/7/09 6:20 PM	10/1/09 12:00 AM	•	,		ı					٠	
SHIT DEF	DATE/TIME	7/7/09 3:50 PM	7/9/09 9:00 PM					*.					NOTES:

1. Maintenance event performed by Enviromental Assessment and Remediation

## ATTACHMENT E

## PHOTO LOGS/CORRESPONDENCE



# Active Industrial Uniform 63 West Merrick Road Lindenhurst, NY NYSDEC Site # 152125

EAR Photos From Initial Site Walk (07-22-09)



## Non-pressure rated elbow

Replace elbow and all PVC between existing flange and new flange

Cut, and insert flange







Effluent transfer pump to be removed for evaluation/repair





## Non-Pressure Rated Elbow





## Air/Water Separator to be replaced

## Leak from bottom of drum













Sump pump piping to be replaced/reconfigured





## Transfer pump to be removed and evaluated/repaired

## Effluent filter basket to be potentially replaced









## Pressure meter to potentially be replaced





## Broken handle on globe valve





## Supports recommended for potable water line







## **Paul Martorano**

From: Trego, Donald A. [Trego@ENVIRO-ASMNT.COM]

Sent: Friday, July 24, 2009 1:07 PM

To: Payson Long

Cc: Paul Martorano; Hough, Kevin

Subject: FW: Magnatex Pumps Quote T-3662 by CP

Mr. Long,

Please see below for a shipping estimate from Magnatex. If you want the entire exact pump from Magentex, the total cost would be \$6797.56 (without our contract markup).

If you decide to replace the pump with the exact replacement, rather than a similar pump with equal specifications, I would be required to submit a single source vendor request for approval by NYSDEC contract and payments section (CPS).

Please let me know how you would like us to proceed.

Sincerely,

Donald A Trego
Vice President
Environmental Assessment & Remediations
<u>Trego@Enviro-Asmnt.com</u>
Phone: 1-888-EAR-6789

Fax: 631-447-6497 www.Enviro-Asmnt.com

## Notice:

This communication, including any attachments, is for the exclusive use of the person(s) addressed above and may contain proprietary, confidential or privileged information. If you are not the intended recipient; any use, reproduction, disclosure, dissemination or distribution is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, delete this communication and destroy all copies.

From: Christi Prust [mailto:cprust@magnatexpumps.com]

Sent: Friday, July 24, 2009 12:53 PM

To: Trego, Donald A.

Cc: lhoff@magnatexpumps.com

Subject: RE: Magnatex Pumps Quote T-3662 by CP

Donald,

Due to our current shop load, lead time would be 2-4 weeks for the parts and/or the pump.

We will not collect sales tax in NY.

Shipping FedEx 3 days - for parts - \$44.40

Shipping FedEx 3 days – for pump - \$707.56

Shipping quote is only valid for (1) week.

Please let me know if you have any questions or if there is anything I can do to further assist you. Thanks and have a great day!

Best Regards,

Christi Prust Magnatex Pumps, Inc. 719-329-0777

From: Trego, Donald A. [mailto:Trego@ENVIRO-ASMNT.COM]

**Sent:** Friday, July 24, 2009 9:15 AM

To: Christi Prust

Subject: RE: Magnatex Pumps Quote T-3662 by CP

Can you please provide a cost for shipping to Patchogue, NY and any applicable sales tax? I need a firm total cost to provide to my client. Also, what is the lead time on the parts and pump?

Thanks.

Donald A Trego
Vice President
Environmental Assessment & Remediations
<u>Trego@Enviro-Asmnt.com</u>
Phone: 1-888-EAR-6789
Fax: 631-447-6497

Fax: 631-447-6497 www.Enviro-Asmnt.com

## Notice:

This communication, including any attachments, is for the exclusive use of the person(s) addressed above and may contain proprietary, confidential or privileged information. If you are not the intended recipient; any use, reproduction, disclosure, dissemination or distribution is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, delete this communication and destroy all copies.

From: Christi Prust [mailto:cprust@magnatexpumps.com]

Sent: Friday, July 24, 2009 11:10 AM

To: Trego, Donald A.

Subject: FW: Magnatex Pumps Quote T-3662 by CP

Dear Donald,

Per our phone conversation – the price of the inner magnet + impeller assembly is \$4912 and the price for the complete bare pump, MTA-A10-P-F20-2-FE is \$6090.

Please let me know if you have any questions or if there is anything I can do to further assist you. Thanks and have a great afternoon!

Best regards,

Christi Prust
Magnatex Pumps, Inc.
719-329-0777
cprust@magnatexpumps.com
www.magnatexpumps.com



# Active Industrial Uniform 63 West Merrick Road Lindenhurst, NY NYSDEC Site # 152125

EAR Photos Of Damage To Effluent Transfer Pump (07-23-09/07-24-09)



Effluent transfer pump







Model: MTA-A10-P-F20-2-FE

Size: 3x2x6 Material: PFA

HP: 15

Serial # T-502111-1B/P2



**Broken Parts** 

Damage to PFA Liner and Casing



# Other Damaged Parts











# **Explode View Drawing Of Transfer Pump**

#### 13b. EXPLODED VIEW DRAWING

#### MODEL MTA-A10

Item no.	Description		
001	Casing		
015	Shaft support		
018	Shaft		
028	Bracket		
051	Bushing		
052	Mouth ring		
054	Front thrust ring		
056	Rear thrust ring		
057	Outer magnet		
058+013	Inner magnet + Imp	eller	
060	Rear casing		
101-1	Casing gasket		
101-5	Drain gasket		
102	Drain flange		
902	Motor adapter	Cont	
(3) (3) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	Dec. O		90)
102			



From: Trego, Donald A. [Trego@ENVIRO-ASMNT.COM]

Sent: Monday, July 27, 2009 11:52 AM

To: Payson Long

Cc: Paul Martorano; Stephen Tauss; Hough, Kevin

Subject: Site ID 152125 Active Industrial Remedial Services Call-out 118404 - Effluent Pump

#### Mr. Long,

I have contacted another supplier (Hayes Pump) of a magnetic drive, Teflon lined, close coupled transfer pump that is rated for the same performance specifications (250 GPM @ 160 TH) as the transfer pump previously in service (Magnatec). Their applications engineer provided the attached quote. As you can see from the attached PDF, their recommended pump requires a 25 HP motor. This increase in HP would not only greatly increase electrical usage cost, but would require a change in several system electrical components (Variable Freq Drive, wiring, etc..). Also, the cost of \$18,436 (before tax, and shipping) is far greater than the cost of replacing the pump end on the previous in service pump (Magantec \$6797.56).

Please call to discuss.

Sincerely.

Donald A Trego Vice President **Environmental Assessment & Remediations** Trego@Enviro-Asmnt.com Phone: 1-888-EAR-6789 Fax: 631-447-6497

www.Enviro-Asmnt.com

#### Notice:

# GGOULDS PUMPS HAYES PUMP INC

## **Environmental Assessment & Remediations**

Hayes Pump 295 Fairfield Ave Fairfield NJ 07004 Phone: 973-808-0606 Fax: 973-808-7311

\_ew Blanche

Email: Lblanche@hayespump.com

PRICE in USD

Incl

Incl

18.436

Pump Unit

Driver

**Boxing** 

**Testing** 

Freight Accessories

**Total 1 Unit** 

/ Factory

Shipment: 4 to 6 weeks Ex-Works

July 27, 2009

INQ NO: Email of 7/27/09 Proposal No: LAB09-07-27 01

Item No: ITEM 001

Attn: Mr. Donald A Trego

### MODEL:3298 M SIZE:2x3-8 QTY: 1

Operating conditions

SERVICE

Transfer

LIQUID

Water / 5 % Hydrochoric Acid Temp. 70.0 deg F, SP.GR 1.000, Viscosity 1.000 cp, rated / max. suction pressure 0.0 / 0.0 psi g

**CAPACITY Rated** 

250.0 gpm

HEAD

160.0 (ft)

Performance at 3560 RPM

**PUBLISHED EFFY** 

57.0% (CDS)

RATED EFFY

56.5%

**RATED POWER** 

17.9 hp (Run out 20.6 hp)

NPSHR

17.4 ft

DISCH PRESSURE(R)

76.4 psi g (96.9 psi g @ Shut off) Based on 0.0 psi g Suc.press

PERF. CURVE

5229-1 (Rotation CW viewed from coupling end)

SHUT OFF HEAD

223.8 ft

MIN. FLOW

Continuous Stable: 44.0 gpm Hydraulic: 44.0 gpm Thermal: N/A

Materials

CONSTRUCTION

Tefzel lined (close coupled)

**CASING** 

Ductile iron/Tefzel lined (max.casing.pres. @ rated temp. 225.0 psi g)

MAGNETS

Neodymium-Iron

**IMPELLER** 

CFR Tefzel - Enclosed (7.3750 in rated, max=8.3800 in, min=5.5000 in)

STAT. SHAFT MAT. MAG DRIVE ASSY Silicon Carbide

MAG DIVIVE A

D07717A03

**BASEPLATE** 

Channel steel E01096A01

## Casing connections

Casing drain flanged

Flanges

150# raised face

## Liquid end features

Containment Shell O-ring in Viton

Impeller balance holes

Magnets balanced to ISO 1940 G6.3 balance levels

Thrust and radial bearings-carbon

Testing



Non witnessed casing hydrostatic-test

**Painting** 

Goulds Blue standard painting

Protection devices

0.4-10A (PS20, 100-240VAC)

Driver: Electric motor Manufacturer: Pump mfg's Choice

FURNISHED BY

Pump mfg

MOUNTED BY

Pump mfg

**RATING** 

25.0 hp (18.6 KW)

**ENCLOSURE** 

TEFC - Epact Efficient

PHASE/FREQ/VOLTS

3/60 Hz/208-230/460

SPEED

3600 RPM

INSULATION/SF

F/1.15

FRAME

284TSC

Weights and Measurements

TOTAL NET UNIT WEIGHT / VOLUME

766.0 lb / 10.7 ft<sup>3</sup>

TOTAL GROSS UNIT WEIGHT / GROSS VOLUME

862.0 lb / 19.2 ft<sup>3</sup>

Program Version 1.30.0.0

Our offer does not include specific review and incorporation of any Statutory or Regulatory Requirements and the offer is limited to the requirements of the design specifications. Should any Statutory or Regulatory requirements need to be reviewed and incorporated then the Customer is responsible to identify those and provide copies for review and revision of our offer.

Our quotation is offered in accordance with our comments and exceptions identified in our proposal.

## Click here to download the pump Bulletin

## **PUMPSMART FLOW ECONOMY ESTIMATES**

**FIXED SPEED** 

13.3 gpm/kW

Expected range for typical operation 10.4 to 16.2 gpm/kW

FLOW ECONOMY

•

19.5 gpm/kW

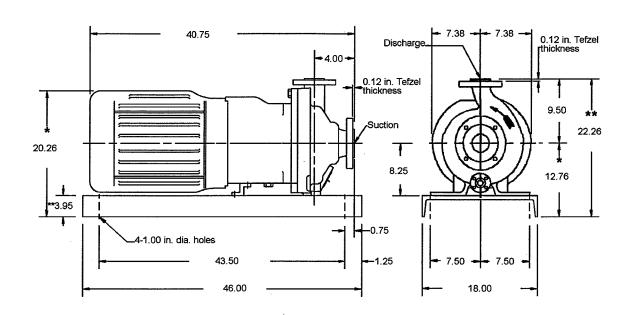
**PUMPSMART** 

Expected range for typical operation 15.9 to 22.5 gpm/kW

Click Here To Learn More!

Estimated Annual Savings 2,600 USD





Pump specification

SUCT.FLANGE SIZE 3"	ORILLING ANSI 150#	FACING RF	FINISH SMOOTH
DISCH.FLANGE SIZE 2"	ORILLING ANSI 150#	FACING RF	FINISH SMOOTH
PUMP ROTATION ( LOOKING AT	PUMP FROM MOTOR )	CW	
TYPE OF LUBRICATION N/A			COOLED NO
TYPE OF STUFFING BOX N/A			COOLED NO
TYPE OF SEALING SEALLES	S PUMP		

Weights and Measurements

PUMP	176.0 lb
MOTOR	340.0 lb
BASEPLATE	250.0 lb
TOTAL	766.0 lb
GR.VOLUME w/BOX	19.2 ft³
GR.WEIGHT w/BOX	862.0 lb

Motor specification

MOTOR BY	PUMP MFG	MOUNT BY PL	IMP MFG	MFG.	PUMP MFG	'S CHOICE	
FRAME	284TSC	POWER	25.0 hp		RPM	3600	
PHASE	3	FREQUEN	CY 60 HZ		VOLTS	208-230/460	
INSULATION	F	S.F.	1.15				
ENCLOSURE	TEFC - EPA	TEFC - EPACT EFFICIENT					

Auxiliary specification

COUPLING BY	CPLG TYPE	
CPL GUARD BY	CPLG GUARD MATL	
BASEPLATE CHANNEL	STEEL E01096A01	

Notes and References

- MTR DIMENSIONS ARE APPROXIMATE
- INSTALL FOUNDATION BOLTS IN PIPE SLEEVES ALLOW FROM 0.75 to 1.50in. FOR
- GROUTING. SEE INSTRUCTION BOOK FOR DETAILS.
- \*\*Tolerance is +0 -0.56 in. \*Tolerance is +0 -0.50 in.
- \*\* Foundation bolt grip thickness

FOR PUMP TAPPED OPENINGS REFER TO DWG.: TLAB09-07-27 01 / ITEM 001

DRAWING IS FOR REFERENCE ONLY.

NOT CERTIFIED FOR CONSTRUCTION UNLESS SIGNED.

Customer: Environmental Assessment & Remediations

Serial No:

Customer P.O. No: Item No: ITEM 001

End User: Environmental Assessment & Remediations

Service: Transfer

Copyright 2009

ITT Corp

All dimensions are in inches.
Drawing is not to scale

Drawing is not to scale
Weights (lbs) are approximate

**DRAWING NO** LAB09-07-27 01/ITEM 001

FORM # ED0259

Program Version 1.30.0.0

Model: 3298 Size: 2x3-8 60Hz Group: M **RPM: 3560** Stages: 1

Job/Inq.No.: Email of 7/27/09

Purchaser: **Environmental Assessment & Remediations** 

End User: **Environmental Assessment & Remediations** Issued by: Lewis Blanche

Quotation No.: LAB09-07-27 01 Item/Equip.No.: **ITEM 001** 

Service: Transfer Order No.: Certified By: Rev.: 0

**Operating Conditions** 

**Pump Performance** 

Liquid: Water / 5 % Hydrochoric Acid Published Efficiency: 57.0 % Suction Specific Speed: 6,180 gpm(US) ft

Date: 07/27/2009

Temp.: 70.0 deg F Rated Pump Efficiency: 56.5 % Min. Hydraulic Flow: 44.0 gpm S.G./Visc.: 1.000/1.000 cp Rated Total Power: 17.9 hp Min. Thermal Flow: N/A

Flow: 250.0 gpm Non-Overloading Power: 20.6 hp Power@Min. Flow: 11.29 hp TDH: 160.0 ft Imp. Dia. First 1 Stg(s): 7.3750 in

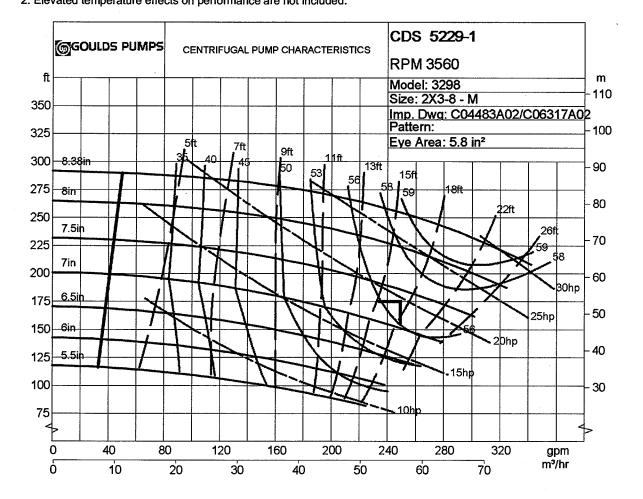
NPSHa: NPSHr: 17.4 ft Shut off Head: Solid size: 223.8 ft

% Susp. Solids Vapor Press:

Max. Solids Size: 0.0060 in

(by wtg):

1. Power and efficiency Losses are not reflected on the curve below. Elevated temperature effects on performance are not included.



From:

Trego, Donald A. [Trego@ENVIRO-ASMNT.COM]

Sent:

Wednesday, July 29, 2009 4:45 PM

To:

Payson Long

Cc:

Stephen Tauss; Paul Martorano; Hough, Kevin

Subject: Site ID 152125 Active Industrial Remedial Services Call-out 118404 - Effluent Pump

Mr. Long,

As discussed, and approved by yourself and CPS, a replacement Magnatex Pump (MTA-A10-P-F20-2-FE) was ordered today.

I will keep you posted as to the status.

Please let me know if you have any questions.

Donald A Trego
Vice President
Environmental Assessment & Remediations
<u>Trego@Enviro-Asmnt.com</u>
Phone: 1-888-EAR-6789

Fax: 631-447-6497 www.Enviro-Asmnt.com

#### Notice:

From:

Trego, Donald A. [Trego@ENVIRO-ASMNT.COM]

Sent:

Friday, August 07, 2009 2:52 PM

To:

Payson Long

Cc:

Paul Martorano; Stephen Tauss; Hough, Kevin

Subject: Site ID 152125 Active Industrial Remedial Services Call-out 118404 - Status

Mr. Long,

This e-mail is to provide you with a brief status update on our activities at the above referenced project.

- 1) The effluent transfer pump replacement has been ordered and should ship from the manufacturer today.
- 2) A new 110 gallon 304 SS drum and associated 304 SS materials to construct a new knockout tank have been ordered. The drum should arrive in approximately 2 weeks. We will construct the new knockout tank when all the parts arrive and install upon completion.
- 3) Most of the piping repairs/replacements have been completed. Everything that can be done has been done. We are waiting on the replacement transfer pump to complete the piping repairs/replacements.
- 4) As we discussed today, EAR went to the site this afternoon to conduct basic property maintenance (i.e. grass cutting). We will plan on conducting the maintenance biweekly.

Please let me know if you have any comments or questions.

Sincerely,

Donald A Trego
Vice President
Environmental Assessment & Remediations
<u>Trego@Enviro-Asmnt.com</u>
Phone: 1-888-EAR-6789

Fax: 631-447-6497 www.Enviro-Asmnt.com

#### Notice:

From:

Trego, Donald A. [Trego@ENVIRO-ASMNT.COM]

Sent:

Monday, August 17, 2009 11:36 AM

To:

Payson Long

Cc:

Paul Martorano; Stephen Tauss; Hough, Kevin

Subject: Site ID 152125 Active Industrial Remedial ServicesCall-out118404

Mr. Long,

As we discussed, the replacement transfer pump has been installed and the piping complete. We will be meeting onsite with D&B today at 15:00 so they can start up the system. We will be there to monitor the pump startup.

If you have any questions or concerns, please let me know.

Sincerely,

Donald A Trego Vice President Environmental Assessment & Remediations <u>Trego@Enviro-Asmnt.com</u> Phone: 1-888-EAR-6789

Fax: 631-447-6497

www.Enviro-Asmnt.com

#### Notice:

From:

Trego, Donald A. [Trego@ENVIRO-ASMNT.COM]

Sent:

Thursday, September 03, 2009 11:33 AM

To:

Payson Long

Cc:

Paul Martorano; Hough, Kevin; Stephen Tauss

Subject: Site ID 152125 Active Industrial Remedial Services Call-out118404

Mr. Long,

As we discussed, the electrical motor for the effluent transfer pump was ordered last week after your approval. The motor has shipped and is expected to arrive at our office on September 8, 2009. Upon arrival, we will install and then meet with D&B to re-start the system.

The new 304 SS knockout tank has been fabricated to the original design and has been installed.

As discussed, when we removed the level sensor from the old knockout tank the bottom float was broken and off of the level rod. Please see attached photo. We have contacted the manufacturer and the replacement float is \$10 + shipping and markup. With your approval we will order the replacement float and repair the level sensor.

Donald A Trego
Vice President
Environmental Assessment & Remediations
<u>Trego@Enviro-Asmnt.com</u>
Phone: 1-888-EAR-6789

Fax: 631-447-6497

www.Enviro-Asmnt.com

#### Notice:



# Active Industrial Uniform 63 West Merrick Road Lindenhurst, NY NYSDEC Site # 152125

EAR Site Photos 09-18-09

# Flange On System Effluent Piping That Was Leaking





# Water Leaking From Cracked Flange

## **Rusted Bolts and Nuts**





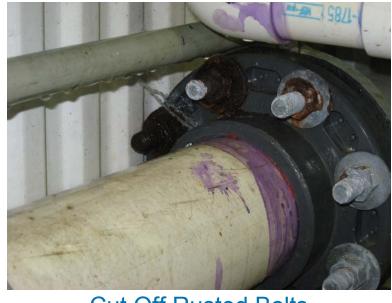


# Inside Of Effluent Pipe

# Flange Against Back Wall



Drain Pipe In Front Of Flange



**Cut Off Rusted Bolts** 







# New Flange And Piping Repair





**New Coupling** 





## **Effluent Flow Meter Details**









# Active Industrial Uniform 63 West Merrick Road Lindenhurst, NY NYSDEC Site # 152125

EAR Site Photos 09-10-09

# Old, Rusted Steel Knock-Out Tank



# New, 304 Stainless Steel Knockout Tank















# New Electrical Motor Attached To New Transfer Pump





# Finished Re-Piping







# Water Line Secured





# Yard Maintenance (Photo from 09-10-09)









## ATTACHMENT F

## ANALYTICAL RESULTS

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

		RESULTS O	F ANALYSIS OF GROUP	NDWATER SAMPLING -	VOLATILE ORGANIC CO	OMPOUNDS (VOCS)		No.	
SAMPLE ID	MW-101	MW-102	MW-103	MW-104	1011405			T	NYSDEC CLASS GA
SAMPLE TYPE	WATER	WATER	WATER	WATER	MW-105	MW-108	MW-107	MW-108	GROUNDWATER
DATE OF COLLECTION	9/28/2009	9/28/2009	9/28/2009	9/28/2009	WATER 9/28/2009	9/28/2009	WATER 9/28/2009	WATER	STANDARDS AND GUIDANO
COLLECTED BY	D&B	D&B	D&B	D&B	D&B	D&B	9/28/2009 D&B	9/28/2009 D&B	VALUES
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
VOCs Dichlorodiffuoromethene	· · · · · · · · · · · · · · · · · · ·	<del> </del>					(0), (0)	1	1
Chloromethane	l ü	Ü	Ų	U	U	U	U	U	5 GV
Vinyl chloride	"	U	U	l u	U	U	į v	Į Ū	1 2.
Bromomethane	l ŭ	l ü	"	U	l ii	l i	U	U	2 ST
Chloroethane	l ŭ	l ŭ	l ŭ	Ü	U	Ų.	Ų	U	5 ST
Trichlorofluoromethane	ľ	l ŭ	l ŭ	ŭ	l ü	U	l ü	Ų	5 ST
1,1-Dichloroethene	Ú	ľ	l ŭ	ľ	l ü	"	U	"	5 ST
Acetone	ט	U	l Ü	l ŭ	l ŭ	l ŭ	ŭ	!	5 ST
iodomethane Carbon disuffide	U	U	U	Ū	Į Ū.	ľů	l ŭ	1 1	50 GV
Methylene chloride	Ų.	· U	Ų	U	U	Ü	ľů	l ŭ	60 GV
trane 1,2-Dichloroethene	U	l ü	l ü	U	U	l u	Ū	l ŭ	5 ST
Methyl-tert butyl ether	1 6	U	U	Ų.	U	U	ľ	l ŭ	5 ST
1,1-Dichloroethane	ĭ	6	"	<u> </u>	į "	l ü	U	Ü	10 GV
Vinyl acetate	l ŭ	l ŭ	l ü	U	U	l ü	U	U	5 ST
2-Butanone	Ŭ	Ŭ	l ŭ	l ŭ	1 %	l H	Ų	l ü	1
cis-1,2-Dichloroethene	, m	ÜJ	Ŭ	ŭ	18 J	270 J	ü	1	50 GV
2,2-Dichloropropane	Ų	U	U	Ü	Ü	-700	<b>-1</b> ₩	1 8	5 ST 5 ST
Bromochloromethane	U	l v	l u	l u	l . ŭ	Ĭ	l ŭ	ı	5 ST
Chloroform 1,1,1-Triohioroethane	U	l ii	U	l u	Ū	Ŭ	l ŭ	l ŭ	7 ST
1,1-Dichioropropens	1 1	l ii	Ų	į ų	U	U	l. Ú	l ŭ	SST
Carbon tetrachloride	ı	U	U	l ii	U	U	U	Ú	5.87
1,2-Dichloroethane	l ŭ	Ü	U	U	Ü	U	U	U	5 ST
Benzene	) ŭ	Ιŭ	1 6	1 1	l !	l U	Ų	U	0.6 ST
Trichloroethene	Ū	Ŭ	l ŭ	34 J	9.1	400	4 V	U.	1 ST
1,2-Dichioropropene	U	l u	Ιŭ	i ü	U U	400	2.5 J	l ü	5 ST
Bromodichloromethane	U	Ū	l ŭ	ľů	ŭ	l ü	U	U .	1 ST
cls-1,3-Dichloropropene	U	U	l ŭ	ľů	Ŭ	l ŭ	l ŭ	l ü	5 ST
4-Methyl-2-pentanone Toluene	U	U	U	Ü	Ŭ	l ŭ	l ĭ	l ü	0.4 ST
trans-1,3-Dichloropropens	Ų	Ų.	U	·U 💂	Ū	l ŭ	ŭ	l ŭ	5ST
1,1,2-Trichloroethane	U .	l u	Į Ų	l n	U	l u	Ū	Ιŭ	0.4 ST
1,3-Dichloropropane	1 8	U	Ų	Ų	U.	U	Ū	l ŭ	1 ST
Tetrachloroethene	1.1 J	1.2 J	12		U	U U	U	.l ∪	SST
2-Hexanone	l "ŭ	Ü	<del>''' '''</del>	610 U	46 U	240	26	1.5 J	5ST
Dibromochloromethane	Ū	l ŭ	l ŭ	l ŭ	l ŭ	U	U	U	50 GV
1,2-Dibromoethene	U	Ū	l ŭ	l ŭ	l ŭ	l · ŭ	U	U ·	50 GV
Chlorobenzene	U	U	l ŭ	Ŭ	l ŭ	l ŭ	l ii	l ü	5 ST
1,1,1,2-Tetrachioroethane	U	U	U	Ü	Į ŭ	l ŭ	lŭ	l ii	5 ST 5 ST
Ethylbenzene Xylene (total)	·	U	U	U	l ū	Ŭ	ľů	l ŭ	587
Styrene	U .	Ų	U	U	l u	Ü	į ŭ	ľů	5 ST
Bromoform	l ü	U	Ü	Ų	U	U	l ú	Ŭ	6 ST
feopropylbenzene	ľű	ŭ	U	U	l ü	U	U	Ü	50 GV
1,1,2,2-Tetrachloroethane	Ĭ	ŭ	ŭ	l ü	l !	į ų	l U	U .	5ST
Bromobenzene	l ŭ	ľů	l ŭ	l ŭ	U	U	U	U	5 ST
1,2,3-Trichloropropene	l w	W	Ŭ	l ŭ	Ü	lω	U	U	5 ST
n-Propylbenzene	l u	ט	lυ	l ŭ	Ü	13	i ü	. n	0.04 ST
2-Chlorotoluene	U	U	ט ו	l ŭ	l ŭ	l ŭ	Ŭ	'	5 ST .
1,3,5-Trimethylbenzene	l ü	U	U	υ	ľů	l ŭ	ľů	ŭ.	5ST
4-Chlorotoluene tert-Butylbenzene	l ü	U	U	U	Į Ū	l ŭ	l ŭ	Ιŭ	5 ST 5 ST
1,2,4-Trimethylbenzene	"	l ü	U	U	j U	U	ľ	ľű	5 ST
ec-Butylbenzene	l ü	U	l !!	U	U	U	Ü	Ŭ	5 ST
l-isopropyltoluene	Ü	Ü	!!	Ų	U	U	Ú	Ŭ	5ST
1,3-Dichlorobenzene	ŭ	ŭ	l U	U	Ų !	U	U	Ü	5 ST
1,4-Dichlorobenzene	lυ	Ĭ	l ü	"	U	l u	U	l ü	3 5 7
n-Butylbenzene	Ú	l ŭ	Ĭ	l ŭ	"	l ü	U	l ü	3 ST
1,2-Dichlorobenzene	Ū	ŭ	lŏ	l ŭ	"	l y	Ų	l ü	5 ST
1,2-Dibromo-3-chioropropane	Ů	łŪ	ľ	l ü		"	Ų	l ü	3 ST
1,2,4-Triohiorobenzene	Ú	U	ľű	l ŭ	"	"	Ü	l !	0.04 ST
Hexachlorobutediene	U	lυ	Ŭ	Ŭ	l ŭ	;	] "	l ii	5 ST
Naphthalene	U	Ü	Ŭ	ŭ	ľű	l	( ;	U	0.5 ST
1.2.3-Trichlorobenzene	U U	Ü	Ü	ŭ	L ü	lŭ	1 "	1 %	10 GV
Totel VOÇe GENERAL CHEMISTRY	1.1	1.2	12	644	73.1	910	28.5	1.5	5ST
PH (S.U.)	<del> </del>					I	1	1	<del>                                     </del>
71. (A1A1)	6,2	6.2	6.0	6.0	6,0	6.0	6.3	6.2	8-9



Concentration exceeds NYSDEC Class GA Groundwater Standard or Guidence Value

#### **ABBREVIATIONS**

ug/L = Micrograms per liter

→: Not established

ST: Standard Value GV: Guidence Value

#### QUALIFIERS:

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

### ATTACHMENT G

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

Table 4.3: Groundwater VOC Results

***************************************						•		
Location	'MW-101	MW-104	MW-104	MW-106	MW-107	MW-108	MW-2S	DP-08
Sample Date	11/28/2007	11/28/2007	11/28/2007	11/27/2007	11/27/2007	11/28/2007	11/28/2007	1/23/2008
Sample ID_	AIMW101	AIMW104	AIMW104DUP	AIMW106	AIMW107	AIMW108	AIMW2S	AIGW08
QC Code	FS	FS	FD	FS	FS ·	FS	FS	FS
Parameter	Result Qualifier	Result Qualifier	Result  Qualifier	Result Qualifier	Result   Qualifier	Result   Qualifier	Result   Qualifier	
Cis-1,2-Dichloroethene	5 U	5 U	5 U	(A. 1820)	·5 Ū		<b>1</b>	5 U
Tetrachloroethene	5 UJ	<b>建筑</b>		MARKED J	5 UJ		1,2().J	. 5U
trans-1,2-Dichloroethene	5 U	5 U	5 U	2 J	5 U		J	5 U
Trichloroethene	5 U	3 J		(4.5)	5 U	5 U	J (I)	5 U
Vinyl chloride	5 U	5 Ü	5 U	J 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:

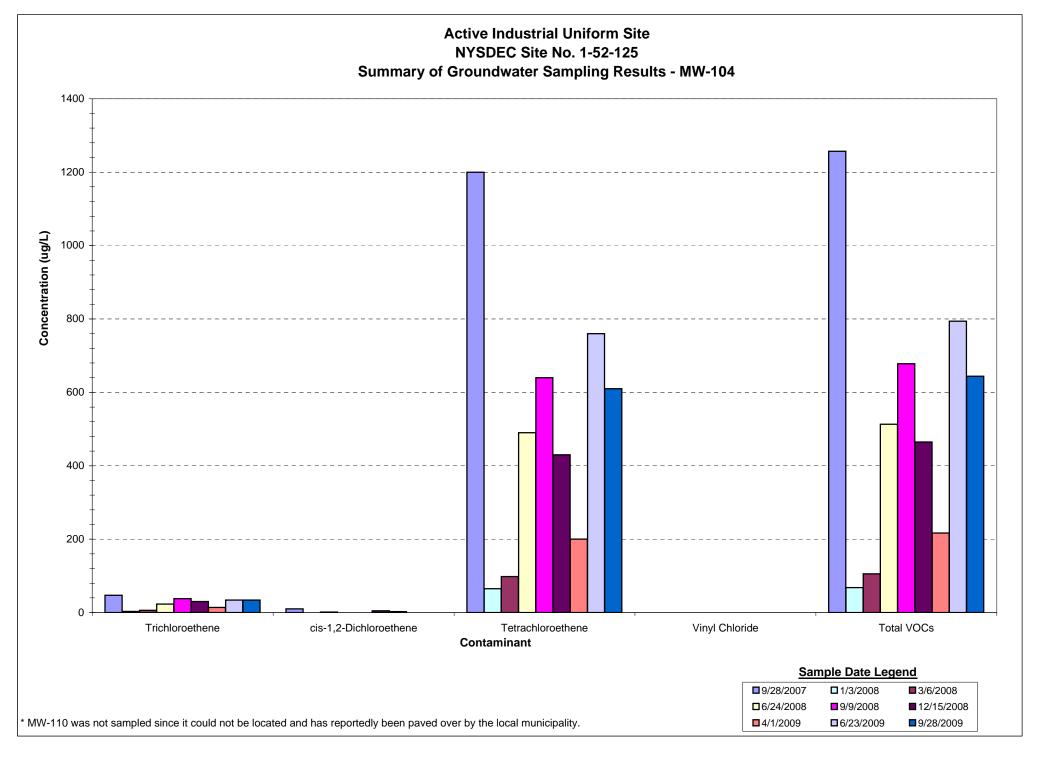
U = Not detected at a concentration greater than the reporting limit

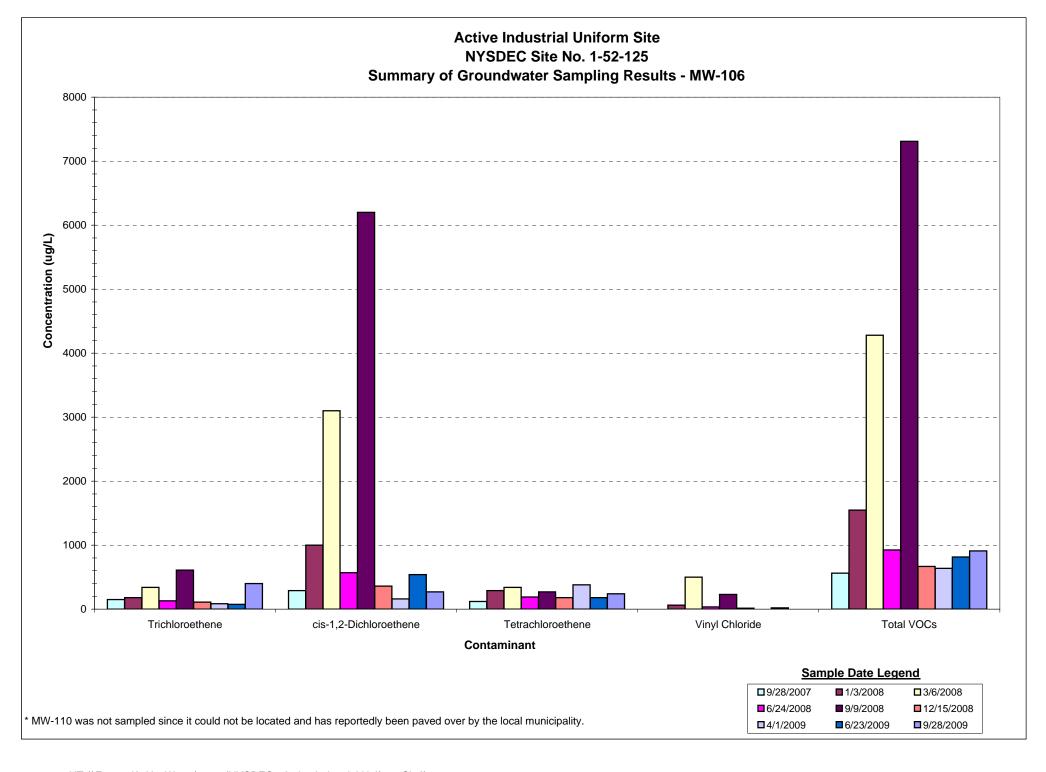
J = Estimated value

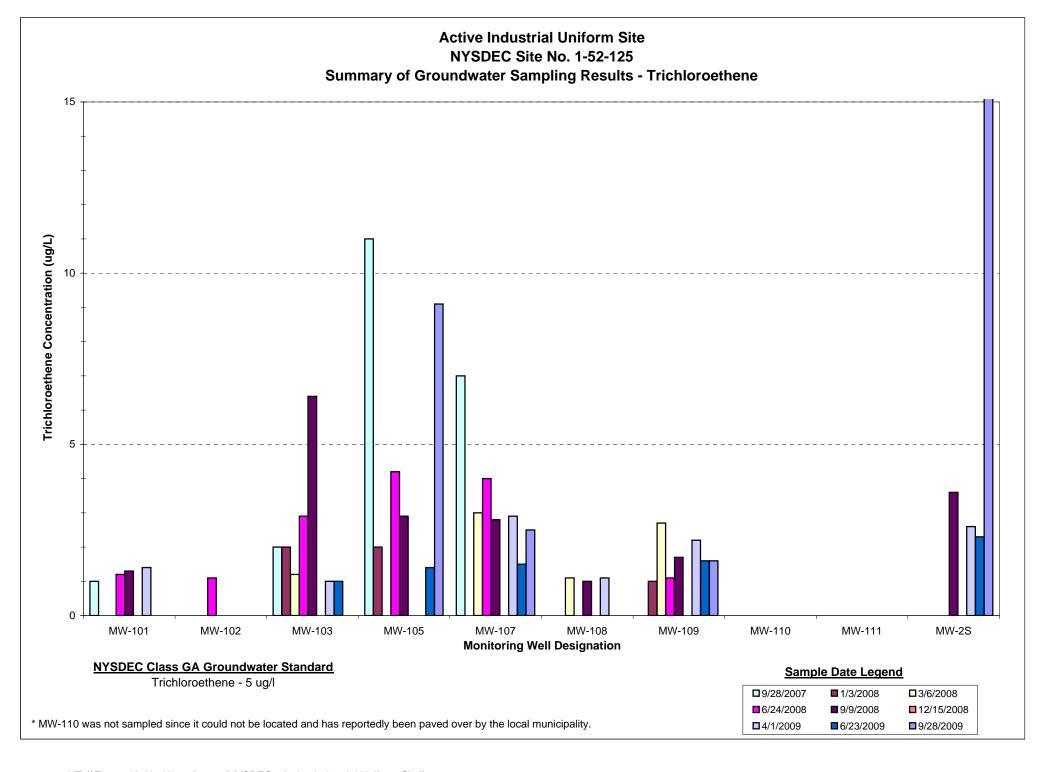
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance values and Groundwater Effluent Limitations (NYSDEC, 1998).
Detections are indicated in BOLD

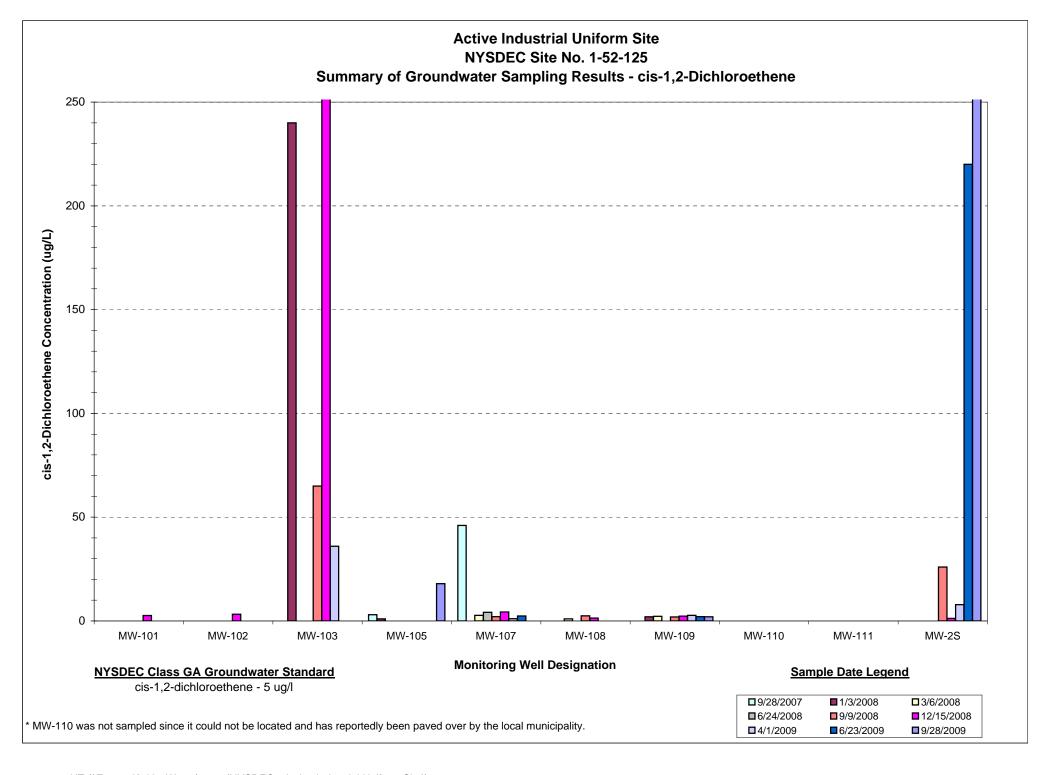
## ATTACHMENT H

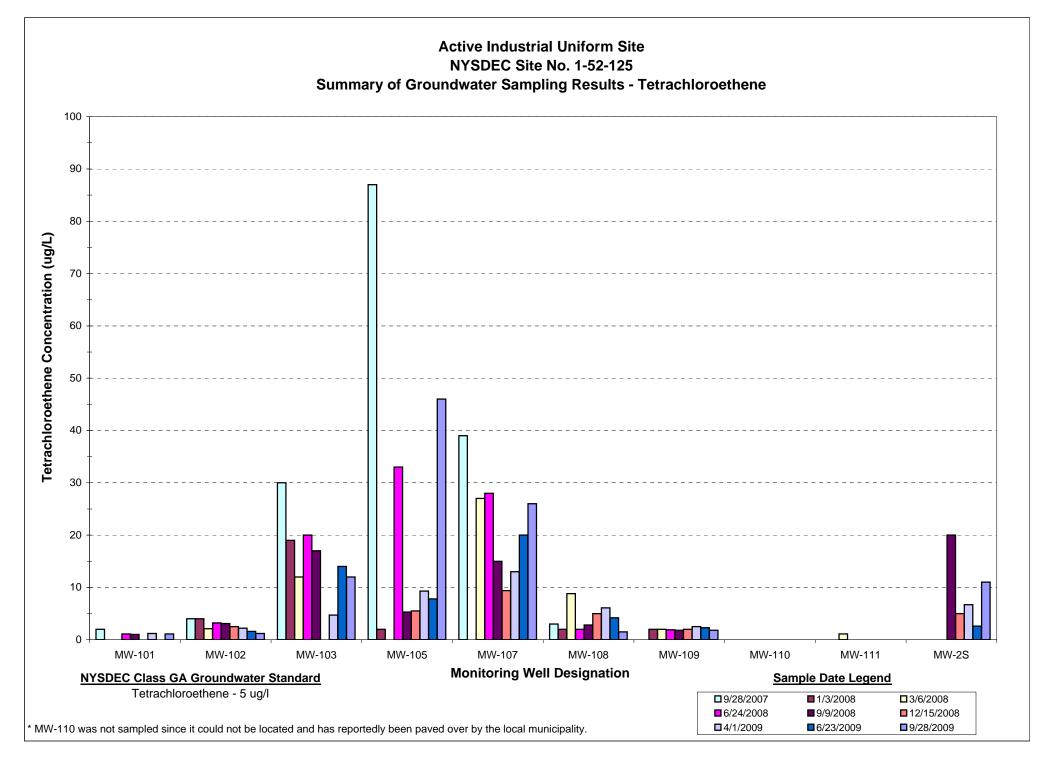
## MONITORING WELL TREND BAR GRAPHS

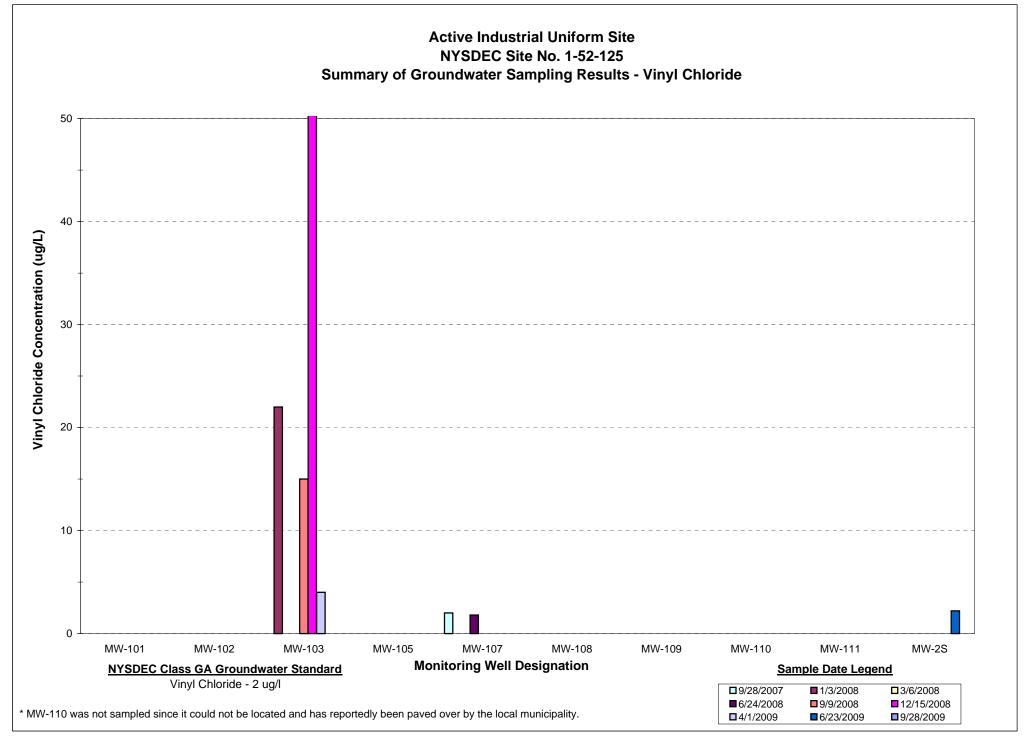


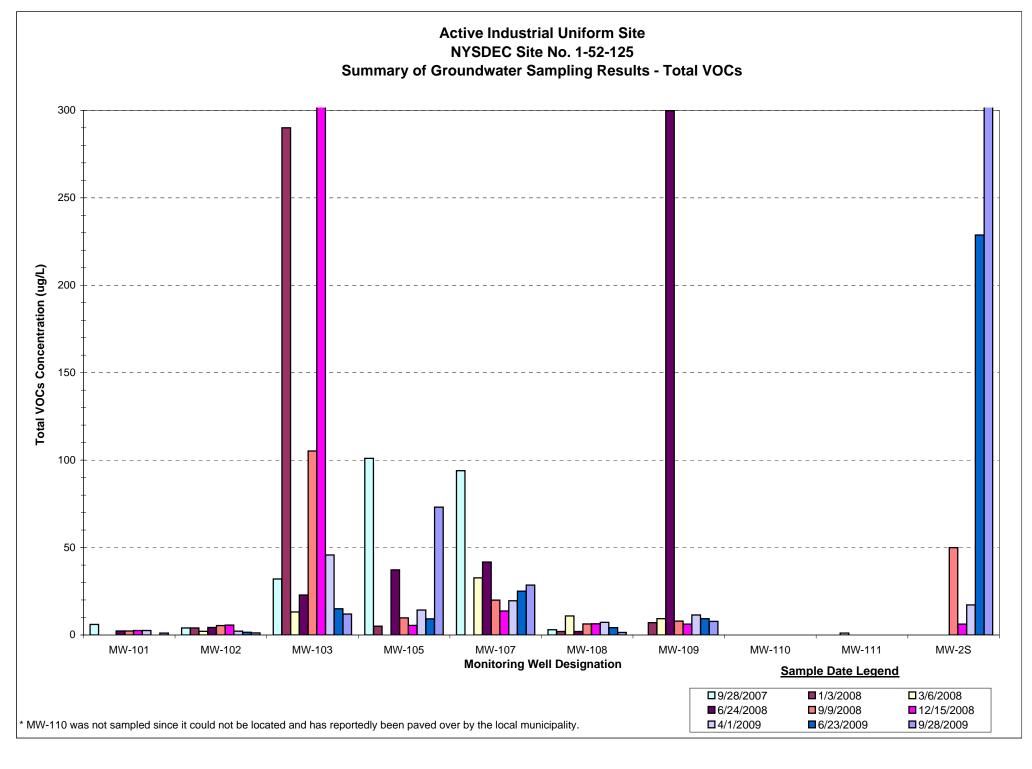












## ATTACHMENT I

## DATA VALIDATION CHECKLISTS

#### **DATA VALIDATION CHECK LIST**

Project Name:	Active Industrial
Project Number:	2578-04
Sample Date(s):	September 28, 2009
Matrix/Number of Samples:	Water/ 11 Trip Blank/ 1
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW 846 method 8260
Laboratory Report No:	SH1887 Date:10/21/2009

# ORGANIC ANALYSES VOCS

	Rej	ported	1	rmance eptable	Not
	No	Yes	No	Yes	Required
1. Holding times		X	`	X	
2. Blanks		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
A. Method blanks		X		X	
B. Trip blanks		X		X	ı
C. Field blanks					X
3. Matrix spike (MS) %R		Χŧ	Х		•
4. Matrix spike duplicate (MSD) %R		X	X		
5. MS/MSD precision (RPD)		X	X		
6. Laboratory Control Sample (LCS) %R		Х	X		
7. LCS duplicate (LCSD) %R		X		Х	
8. LCS/LCSD precision (RPD)		X		Х	
9. Surrogate spike recoveries		Х	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 exception:

Sample result exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
MW-2S	Cis-1,2-dichloroethene	280 E	310 D	310 D

3-5. The %Rs for 1,2,3-trichloropropane was below the QC limit in the MS associated with the samples. The %Rs for 2-butanone and cis-1,2-dichloroethene were above the QC limit in the MSD associated with the samples. 1,2,3-Trichloropropane was not detected in the all samples

and were qualified as estimated (UJ). Cis-1,2-dichloroethene was detected in several samples and were qualified as estimated (J).

The RPD was above the QC limit in the MS/MSD for cis-1,2-dichloroethene associated with the samples. Cis-1,2-dichloroethene were not detected in the associated samples and were qualified as estimated (J/UJ).

- 6. The %R was above the QC limit for 1,1,1-trichloroethane, 1,2-dichloroethane and bromodichloromethane in the LCS associated with MW-104 and MW-106. They were not detected in the samples and therefore did not impact the usability of the reported sample results.
- 9. The surrogate %R for dibromfluormethane was above QC limits in MW-109, MW-102, MW-105, MW-103 and MW-2S. All VOCs that were detected in the associated samples were qualified as estimated (J).

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 12/10/2009
VALIDATION PERFORMED BY SIGNATURE:	an R

## ATTACHMENT J

# PROPOSED OFF-SITE MONITORING WELL LOCATION MAP





ACTIVE INDUSTRIAL UNIFORM SITE VILLAGE OF LINDENHURST, NEW YORK

PROPOSED OFF-SITE MONITORING
WELL LOCATION MAP