ARCADIS
Infrastructure Water Environment Buildings

ARCADIS of New York, Inc.
6723 Towpath Road
P O Box 66
Syracuse
New York 13214-0066
Tel 315 446 9120
Fax 315 449 0017
www.arcadis-us.com

ENVIRONMENTAL

Mr. Payson Long
Remedial Bureau E
Section D
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, New York 12233-7013

Subject:
McKesson Envirosystems
Bear Street Site
Syracuse, New York
Site No. 07-34-020

Date:
April 4, 2012

Contact:
David J. Ulm

Phone:
315.671.9210

Email:
david.ulm@arcadis-us.com

Our ref:
B0026003.00190

Dear Mr. Long:

ARCADIS prepared this Site Management Periodic Review Report (PRR) for the McKesson Envirosystems Bear Street Site, located at 400 Bear Street West in Syracuse, New York (site), on behalf of McKesson Corporation to fulfill the requirements set forth by Section 6.3(b) of DER-10 Technical Guidance for Site Investigation and Remediation (DER-10; New York State Department of Environmental Conservation [NYSDEC] 2010a). The PRR describes the operation and maintenance (O&M) activities conducted at the site and the monitoring results obtained from July through December 2011. This report also fulfills the requirements of the NYSDEC-approved Site Operation and Maintenance Plan (Site O&M Plan) (Blasland, Bouck & Lee, Inc. [BBL], 1999a) and of the December 29, 1999 letter from Mr. David Ulm (BBL) to Mr. Michael Ryan, P.E. (NYSDEC), which presented the long-term process control monitoring program as an addendum to the Site O&M Plan (BBL 1999b). The long-term process control monitoring program was modified by ARCADIS' September 3, 2010 modification proposal letter (ARCADIS 2010a) and the NYSDEC's modification proposal response letter dated September 23, 2010 (NYSDEC 2010b). The Site O&M Plan (BBL 1999a), the 1999 addendum (BBL 1999b), and the 2010 modifications (ARCADIS 2010a and NYSDEC 2010b) are collectively referred to herein as the Site O&M Plan.

The information provided in this PRR has been organized into the following sections:

- *Site Remediation Background.* Provides a brief description and history of the remediation activities and Site O&M Plan modifications at the site.

- *In-situ Aerobic Bioremediation Treatment Program Activities.* Describes the *in-situ* aerobic bioremediation treatment program activities conducted at the site from July through December 2011.

- *Hydraulic Process Control Monitoring.* Describes the results of the hydraulic process control monitoring activities conducted at the site from July through December 2011.

- *Chemical of Concern Process Control and Biannual Groundwater Monitoring Program*. Describes the October 2011 results of the constituents of concern (COC) process control and Biannual Groundwater Monitoring Program, and summarizes the COC data obtained at the site from 1988 through December 2011.

- *Conclusions*. Provides conclusions based on the results of the process control monitoring activities.

- *Recommendations*. Provides recommendations for the *in-situ* aerobic bioremediation treatment program and monitoring activities.

Site Remediation Background

The 8.6-acre site is divided into three areas (Areas 1, 2, and 3), as shown on Figure 1, and consists of two parcels (029-300-380 and 029-300-390). Additionally, the site is divided vertically into two operable units (OUs): OU1 – Unsaturated Soil, and OU2 – Saturated Soil and Groundwater. The NYSDEC-selected remedy for both OUs includes ongoing O&M activities. A Record of Decision (ROD) for OU1 was signed in March 1994 (NYSDEC 1994), which called for *in-situ* aerobic bioremediation of the unsaturated soils comprising OU1. A ROD for OU2 was signed in March 1997 (NYSDEC 1997) and called for anaerobic bioremediation of groundwater and saturated soils. Biannual reports detailing both the O&M activities and the results of the process control monitoring program have been submitted to the NYSDEC since OU1 remedial activities were completed in 1994/1995 and OU2 *in-situ* anaerobic bioremediation treatment activities commenced in July 1998. The site continues to be used for commercial/industrial purposes.

The OU1 bioremediation remedy successfully treated an estimated 20,000 cubic yards of contaminated soil to the technology-based cleanup levels. The treated area was subsequently covered with a minimum of 12 inches of clean soil and reseeded to prevent human exposure to remaining surficial soil contamination. Deed restrictions, an institutional control, are required to prevent future use of and potential human exposure to site groundwater. As per DER-33 (NYSDEC 2010c), a deed restriction is required (rather than an environmental easement or environmental notice) because the site is a Class 2 Site and the ROD was issued prior to October 7, 2003.

The initial components of the remedy implemented for OU2 are identified below.

- An infiltration trench and a withdrawal trench were installed upgradient and downgradient, respectively, of Area 3 as a means to introduce Revised Anaerobic Mineral Media- (RAMM-) amended groundwater into the shallow hydrogeologic unit while maintaining hydraulic control. The introduction of RAMM supplied macronutrients and micronutrients to enhance naturally occurring anaerobic biodegradation of the COCs.

- Two additional infiltration trenches were installed within Area 3 to increase the distribution of RAMM-amended groundwater within this area and to act as overflow devices if the amended groundwater in the aforementioned infiltration trench exceeds maximum capacity.

- Groundwater was pumped from the withdrawal trench, amended with RAMM, and distributed into the shallow hydrogeologic unit via the infiltration trenches described above.

- Two infiltration trenches were installed in both Areas 1 and 2. RAMM-amended groundwater was periodically introduced into these trenches by manually filling standpipes screened within the filter pack of the trenches (i.e., within the shallow hydrogeologic unit). Groundwater used for the RAMM amendment was pumped from pumping well MW-26S because COCs were not detected in any of the groundwater samples from this well, the adjacent monitoring well MW-13S, or the previously existing adjacent monitoring well MW-14D that was abandoned during the OU2 remediation activities.

to allow for additional RAMM amendments to be made to these areas of relatively higher COC concentrations.

After evaluating the biological data (i.e., microbiological analytes, indicator compounds, and permanent gases) obtained during the first six years of monitoring it was concluded that the biological data consistently verified that the saturated soils/groundwater of the shallow hydrogeologic unit within each area are conducive to anaerobic bioremediation, and that there are sufficient carbon electron acceptors and nutrients to sustain microbial activity in each of the three areas. Therefore, the biological portion of the monitoring program was eliminated following the first sampling event in 2005.

In 2006, the periodic review of the COC data suggested that the *in situ* anaerobic treatment program was effectively reducing the concentrations of volatile organic COCs, but concentrations of semi-volatile organic COCs (aniline and N,N-dimethylaniline) were not being reduced in a timely manner. The OU2 *in-situ* anaerobic bioremediation treatment program was modified to an *in-situ* aerobic bioremediation treatment program in August 2006. From August 2006 to October 2008, the *in-situ* aerobic bioremediation treatment program consisted of amending the groundwater with an oxygen source (dilute hydrogen peroxide) and macronutrients. The *in-situ* aerobic bioremediation treatment program was modified in October 2008 to provide a new and continuous source of oxygen to Areas 2 and 3; however, dilute hydrogen peroxide continues to be added to Area 1. The modifications included the following:

- Construction of an oxygen gas diffusion system in both Areas 2 and 3 (Figures 2 and 3, respectively); and

- Installation of an aerator stone in the equalization tank of Area 3's treatment system to add oxygen gas to the groundwater before it is pumped into the infiltration trenches.

In October 2008, macronutrient amendments were discontinued in Areas 1, 2, and 3.

In 2010, the periodic review of the data obtained as part of the monitoring program suggested that concentrations of aniline in the area between TW-02RR and MW-36 were not being reduced as successfully as other areas of the site. A selected excavation program was designed and implemented for the removal of 117.39 tons of saturated soil from Area 2. The backfill placed in the Area 2 excavation was

amended with ORC® to facilitate the aerobic degradation of COCs in groundwater that entered that area of the site. In addition, a system of five standpipes was installed within the excavation area to allow for additional ORC® amendments to be made.

Based on historical groundwater monitoring and analytical data trends, the following modifications were made to the long-term process control monitoring program beginning in October 2010:

- Eliminating methanol analyses in select wells/piezometers;
- Removing select wells from the COC monitoring program;
- Removing select deep wells/piezometers form the hydraulic monitoring program; and
- Abandoning select wells/piezometers.

In addition, the NYSDEC added MW-4S to the COC monitoring program as a downgradient sentinel well for Area 2. Groundwater samples collected at MW-4S will be analyzed for all site COCs, excluding methanol. Due to no detections of COCs at this location at concentrations above the NYSDEC Groundwater Quality Standards during the October 2010 sampling event, the low hydraulic gradient in the vicinity of this well, and its relatively remote location at the site (Figure 1), MW-4S is included in the sampling program every third biannual sampling event. The next samples will be collected from this well in the spring of 2012.

The most recent modification made to the *in situ* aerobic bioremediation treatment program includes the monthly injection of ORC®-amended groundwater into the five standpipes within Area 2. These monthly injections began in June 2011.

In-Situ Aerobic Bioremediation Treatment Program Activities

The NYSDEC verbally approved the *in-situ* aerobic bioremediation treatment program in July 2006 as an alternate approach to lowering concentrations of aniline and other COCs (i.e., benzene, toluene, ethylbenzene, and xylene [BTEX], acetone, methanol, N,N-dimethylaniline, methylene chloride, trichloroethene) at the three areas. This treatment program consists of introducing an oxygen source and

macronutrients into Areas 1, 2, and 3. The oxygen source for all three areas between August 10, 2006 (beginning of the *in-situ* aerobic bioremediation treatment program) and October 27, 2008 (modifications to the *in-situ* aerobic bioremediation treatment program) was dilute hydrogen peroxide at a concentration of 200 parts per million (ppm). The macronutrients were added at an approximate carbon:nitrogen:phosphorus ratio of 50:25:10 in the form of Miracle-Gro®.

In October 2008, the *in-situ* aerobic bioremediation treatment program was modified to include an oxygen infusion system to provide a continuous source of oxygen gas to the groundwater in Areas 2 and 3 via iSOC® units. An oxygen diffuser (i.e., Oxygen Edge Unit) was also installed in the Area 3 equalization tank in January 2009. Dilute hydrogen peroxide amendments continue to be added to groundwater in Area 1, but macronutrient amendments were discontinued.

The following activities were conducted as part of the treatment program during this reporting period (see Figures 1, 2 and 3 for referenced locations):

- Added dilute hydrogen peroxide-amended groundwater into the infiltration trenches in Area 1 (monthly).
- Added dilute hydrogen peroxide-amended groundwater into piezometers in Area 1 (PZ-S, PZ-G, PZ-Q, and PZ-R) and to well points in Area 1 (WP-4 and WP-5) (monthly).
- Added oxygen gas to groundwater via infusion wells in Area 2 (IW-1, IW-2, IW-3, IW-4, and IW-5).
- Added ORC®-amended groundwater into the five standpipes in Area 2 (monthly).
- Added oxygen gas to groundwater via infusion wells in Area 3 (IW-6, IW-7, IW-8, IW-9, IW-10, IW-11, IW-12, and IW-13).
- Added oxygen gas to groundwater in the Area 3 equalization tank.
- Measured dissolved oxygen (DO) levels in the field each month in Area 1 (MW-33), Area 2 (MW-36R and TW-02RRR), and Area 3 (MW-27, MW-28, and MW-8SR).

Dilute hydrogen peroxide was added to the groundwater in Area 1 at a concentration of 200 ppm. Oxygen gas was continuously added to the Area 2 and 3 infusion wells, resulting in a groundwater concentration of at least 40 ppm at the infusion wells. Oxygen gas was continuously added to the Area 3 equalization tank at a concentration of approximately 25 ppm.

The Area 3 *in-situ* aerobic bioremediation treatment system operated satisfactorily during this reporting period. The hydraulic process control system functioned properly during the current reporting period (July through December 2011) and no substantial system repairs were required. Approximately 861,965 gallons of water were pumped from the withdrawal trench and introduced into the Area 3 infiltration trenches, as detailed in this report.

The fencing around the site, which serves as an engineering control, is intact.

Hydraulic Process Control Monitoring

The hydraulic process control monitoring program was established in each of the three impacted areas to:

- Confirm that containment has been established in each area.
- Verify that the groundwater withdrawal rates in Area 3 do not cause the freshwater/saltwater interface to upcone to the bottom of the withdrawal trench.
- Verify that saturated soil/groundwater conditions within the shallow hydrogeologic unit are conducive to microbial degradation of the COCs by aerobic microbial populations.
- Optimize the system operation performance in Area 3.

As part of the hydraulic process control monitoring, groundwater level measurements were obtained at monitoring wells and piezometers that are screened entirely within the sand layer of the shallow hydrogeologic unit and located in and around each of the three areas. Additionally, the Barge Canal surface-water elevation was obtained from measurements made from a reference point on the Bear Street Bridge, which passes over the canal. The hydraulic process control monitoring was conducted on October 24, 2011. The monitoring locations are listed on Table 1 and shown on Figure 1. Mr. Payson Long (NYSDEC) was notified of the October 2011 hydraulic

and COC monitoring event in a letter dated September 30, 2011 from Mr. David Ulm (ARCADIS).

Table 2 summarizes the groundwater level measurements obtained during the October 24, 2011 hydraulic process control monitoring event, as well as those obtained since October 2006 (just after initiating the *in-situ* aerobic bioremediation treatment program). Attachment A - Table 2 summarizes the historical groundwater level measurements obtained from June 1998 (immediately prior to commencing the *in-situ* anaerobic bioremediation treatment activities) through June 2006 (prior to initiating the *in-situ* aerobic bioremediation treatment program). Figure 4 depicts the potentiometric surface of the site's shallow hydrogeologic unit using the October 2011 data set. Site-wide groundwater elevations for this round of sampling were consistent with elevations measured since startup of the treatment system. The results and corresponding conclusions of the hydraulic process control monitoring are summarized below.

- A closed-loop hydraulic cell continues to be maintained in Area 3, as shown on Figure 4. This groundwater containment is an engineering control for the site.

- The groundwater withdrawal rate in Area 3 ranged from approximately 0.40 to 5.12 gallons per minute from July through December 2011.

- The withdrawal of groundwater continues to induce a hydraulic gradient in Area 3 from perimeter monitoring wells MW-23S, MW-25S, and MW-24SR toward the withdrawal trench.

- In Area 3, approximately 25 percent of the recovered groundwater continued to be introduced to the secondary infiltration trench "B;" and the remaining 75 percent continued to be introduced to the primary infiltration trench "C" from July through December 2011.

- The hydraulic data that were obtained to date, throughout the operating history of the treatment system in Area 3, have consistently indicated no discernable effect on the hydraulic gradient of the deep hydrogeologic unit.

The weekly conductivity measurements of groundwater pumped from the withdrawal trench in Area 3 ranged from approximately 1.9 to 2.3 milliSiemens per centimeter (mS/cm), which is consistent with the range of conductivity levels measured prior to system operation (1 to 4 mS/cm). These measurements are well below the measured

conductivity of the deep unit, which is greater than the calibration range of the field instrument (10 mS/cm). These data indicate that operation of the Area 3 treatment system has not caused the freshwater/saltwater interface to upcone to the base of the withdrawal trench. This lack of upconing also indicates that the hydraulic gradient of the deep hydrogeologic unit has not been significantly impacted by withdrawal of groundwater in Area 3.

Chemical of Concern Process Control and Biannual Groundwater Monitoring Program

The groundwater COCs for the site are acetone, BTEX, methanol, trichloroethene, aniline, N,N-dimethylaniline, and methylene chloride. The COC process control and Biannual Groundwater Monitoring Program activities were conducted from October 25 through October 27, 2011, in accordance with the Site O&M Plan (BBL 1999a). Groundwater samples were collected from October 25 through October 27, 2011 and again at TW-02RRR and MW-36R on December 15, 2011 to confirm the aniline concentrations detected during the October 2011 sampling event. Groundwater samples were analyzed by TestAmerica Laboratories, Inc. in Edison, New Jersey (Nationally Accredited Environmental Laboratory ID #12028) via Methods 8290B, 8270C, and 8015B. In addition, the following groundwater quality parameters were measured in the field during the October and December 2011 sampling events: temperature, conductivity, DO, and oxidation/reduction potential. Table 2 lists the existing monitoring wells and piezometers used to conduct the long-term process control monitoring program and provides a schedule for implementing this program. The monitoring locations are shown on Figure 1.

As stated in the NYSDEC's 1997 Record of Decision (OU2 ROD; NYSDEC 1997) for the saturated soils at the site, two of the remediation goals for the site are to:

1. "reduce, control, or eliminate the concentrations of COCs present within the saturated soils at the [Site]."

2. "attain the NYSDEC Class GA Groundwater Quality Standards, to the extent practicable, for the COCs present in onsite groundwater."

In accordance with the requirements of the NYSDEC-approved monitoring program, laboratory analytical results for the October and December 2011 samples were validated. The validated COC groundwater analytical results are summarized in Table 3 and shown on Figures 5 and 6. These figures and table also summarize the

COC groundwater analytical results obtained during the biannual monitoring events conducted from March 2009 through December 2011, which collectively represent the results obtained since the start of the modified *in-situ* aerobic bioremediation treatment activities. The COC groundwater analytical results obtained prior to March 2009 are summarized in Attachment A - Table 2 and presented on Attachment A - Figures 1 through 7. Copies of the validated analytical laboratory reports associated with the October 2011 sampling event are presented in Attachment B. This report summarizes the COC analytical results and DO measurements for the downgradient perimeter monitoring locations and for each of the three areas.

All COC groundwater analytical results are compared to the NYSDEC Groundwater Quality Standards, as presented in Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1) (NYSDEC 1998).

During the October 2011 sampling event, the presence or absence of non-aqueous phase liquid (NAPL) was assessed in existing monitoring wells and piezometers based on observations made during the process control monitoring event. NAPL was not identified in any of the monitoring wells or piezometers used during the process control monitoring program.

DO levels continued to be measured monthly at monitoring locations MW-8SR, MW-27, MW-28, MW-33, MW-36R, and TW-02RRR during this reporting period. Table 4 summarizes these DO measurements.

Additionally, the Mann-Kendall Test for Trends was run for the COC data obtained during the aerobic treatment between August 2006 and December 2011 at the monitoring locations sampled as part of the COC process control and Biannual Groundwater Monitoring Program activities. The Mann-Kendall Test for Trends was also run for the DO data obtained between August 2006 and December 2011 for monitoring locations MW-8SR, MW-27, MW-28, MW-33, MW-36R, and TW-02RRR.

The COC analytical results, DO measurements, and Mann-Kendall Test for Trends results, along with the downgradient perimeter monitoring locations for each area, are summarized below.

- *Sentinel Wells*. COCs were not detected at sentinel well MW-3S above their respective NYSDEC Groundwater Quality Standard (Table 3 and Figure 5). COCs have not exceeded standards in sentinel wells since June 2005 (aniline in MW-3S).

- *Area 1:*

  - COC concentrations detected in groundwater samples collected from Area 1 monitoring wells during October 2011 were generally low, ranging from non-detect to concentrations just slightly greater than their respective NYSDEC Groundwater Quality Standard (Table 3 and Figure 5). The majority of COC concentrations detected during October 2011 at Area 1 monitoring wells were approximately equal to or below concentrations detected during the April 2011 sampling event.

  - At TW-01, N,N-dimethylaniline (1.6 ppb) was detected at a concentration slightly greater than the NYSDEC Groundwater Quality Standard (1 ppb) during the October 2011 sampling event. All other COCs (9 out of 10) were not detected.

  - At MW-9S, benzene (1.2 ppb), xylenes (estimated 41 ppb), and N,N-dimethylaniline (7.6 ppb) were detected above their respective NYSDEC Groundwater Quality Standards (1 ppb, 5 ppb, and 1 ppb, respectively) in October 2011. All other COCs either were not detected (5 of 10) or detected below their respective NYSDEC Groundwater Quality Standard in October 2011 (2 of 10).

  - At MW-31, benzene (5.7 ppb) and N,N-dimethylaniline (3.5 ppb) were detected at concentrations above their respective NYSDEC Groundwater Quality Standards (both 1 ppb) in October 2011. All other COCs either were not detected (6 of 10) or detected below their respective NYSDEC Groundwater Quality Standard in October 2011 (2 of 10).

  - At MW-32, N,N-dimethylaniline (1.5 ppb) was detected at a concentration slightly greater than the NYSDEC Groundwater Quality Standard (1 ppb) during the October 2011 sampling event. All other COCs were either not detected (8 of 10) or were detected below their respective NYSDEC Groundwater Quality Standard in October 2011 (1 of 10).

  - N,N-dimethylaniline (1.9 ppb) was detected at MW-33 at concentrations slightly above its NYSDEC Groundwater Quality Standard (1 ppb) in October 2011. Results of the Mann-Kendall Test for Trends show a decreasing trend in N,N-dimethylaniline concentrations at MW-33. The aniline concentrations detected at MW-33 have remained below the NYSDEC Groundwater Quality

Standard (5 ppb) for the last eight sampling events. Aniline was detected in MW-33 at a concentration of 940 ppb at the beginning of the aerobic bioremediation treatment in 2006, and has not been detected at MW-33 since November 2007. All other COCs either were not detected (6 of 9) or detected below their respective NYSDEC Groundwater Quality Standard in October 2011 (2 of 9).

- DO levels measured at MW-33 from July through December 2011 ranged from 0.36 to 0.49 ppm (Table 4). Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm. Overall, DO levels detected at MW-33 are trending upward.

- Area 2:

  - COC concentrations detected in groundwater samples collected from Area 2 monitoring wells were generally low; most COC concentrations detected during October 2011 at Area 2 monitoring wells were approximately equal to or below concentrations detected during the April 2011 sampling event (Table 3 and Figure 5).

  - The aniline concentration detected in the groundwater sample collected at TW-02RR was higher during this reporting period (1,300 ppb in October 2011 and 1,400 ppb in December 2011) than the concentration detected during the previous sampling period (1.9 ppb in April 2011). Along with aniline, benzene (1.2 ppb) and N,N-dimethylaniline (5.5 ppb) were detected at concentrations above their NYSDEC Groundwater Quality Standards (5 ppb, 1 ppb, 1 ppb, respectively) at this location during the October 2011 sampling event. Overall, the aniline and benzene concentrations detected at this location are trending downward. All other COCs either were not detected (4 of 10) or detected below their respective NYSDEC Groundwater Quality Standard in October 2011 (3 of 10), including total xylenes which exceeded its NYSDEC Groundwater Quality Standard in April 2011.

  - At MW-34, benzene and N,N-dimethylaniline (1.2 ppb and 2.5 ppb, respectively) were detected at concentrations above their respective NYSDEC Groundwater Quality Standard (1 ppb for each) in October 2011. The acetone concentration (350 ppb) anomalously exceeded the NYSDEC Groundwater Quality Standard of 50 ppb. All other COCs either were not detected (5 of 10) or detected below their respective NYSDEC Groundwater

Quality Standards (2 of 10) during this reporting period, including aniline which exceeded its NYSDEC Groundwater Quality Standard in April 2011.

- No COCs were detected at MW-35 (10 of 10). No COCs have been detected or exceeded the NYSDEC Groundwater Quality Standards in this well since November 2004.

- The aniline concentrations detected in groundwater samples collected at MW-36R during the October and December 2011 sampling events (92 ppb and 120 ppb, respectively) exceeded the NYSDEC Groundwater Quality Standard (5 ppb). Benzene (1.8 ppb) and N,N-dimethylaniline (3.6 ppb) were detected at concentrations slightly greater than the NYSDEC Groundwater Quality Standard (1 ppb for each) during the October 2011 sampling event. All other COCs either were not detected (4 of 9) or detected below their respective NYSDEC Groundwater Quality Standard in October 2011 (2 of 9).

- DO levels measured in Area 2 (MW-36R and TW-02RRR) between July and December 2011 are summarized in Table 4. The DO levels were 0.20 and 1.57 ppm at MW-36R and ranged from 0.21 to 0.55 ppm at TW-02RRR. The results of the Mann-Kendall Test for Trends show that DO concentrations are increasing at MW-36R. Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm.

• Area 3:

- COC concentrations detected in groundwater samples collected from Area 3 monitoring wells during the October 2011 sampling event were generally consistent with or lower than the concentrations detected in the previous sampling event conducted in April 2011 (Table 3 and Figure 6).

- Monitoring well MW-8SR is located in the center of Area 3, an area that has been identified in the past as containing relatively higher concentrations of COCs (Attachment A). Xylenes benzene, and N,N-dimethylaniline concentrations (14 ppb, 1.9 ppb and 2.6 ppb, respectively) slightly exceeded their respective NYSDEC Groundwater Quality Standards (1 ppb, 1 ppb, and 5 ppb, respectively). All other COCs either were not detected (4 of 9) or detected below their respective NYSDEC Groundwater Quality Standard in October 2011 (2 of 9), including aniline and ethylbenzene, which had exceeded their respective NYSDEC Groundwater Quality Standards in April

2011. The results of the Mann-Kendall Test for Trends show that aniline, benzene, ethylbenzene, and total xylenes concentrations in the groundwater sample collected from MW-8SR are trending downward.

- The aniline concentration detected at MW-27 was lower during this reporting period (36 ppb in October 2011) than the concentration detected during the previous sampling period (1,000 ppb in April 2011). Benzene (2.1 ppb) and N,N-dimethylaniline (2.7 ppb) slightly exceeded their respective NYSDEC Groundwater Quality Standards (1 ppb for each) in October 2011. The results of the Mann-Kendall Test for Trends show that aniline, benzene, ethylbenzene, toluene, and total xylenes concentrations in the groundwater sample collected from MW-27 are trending downward. All other COCs either were not detected (3 of 9) or detected below their respective NYSDEC Groundwater Quality Standard in October 2011 (3 of 9), including ethylbenzene, toluene, and total xylenes which exceeded their NYSDEC Groundwater Quality standard in April 2011.

- Monitoring well MW-28 has historically exhibited relatively higher concentrations of aniline (Attachment A). In October 2011, aniline was not detected above the NYSDEC Groundwater Quality Standard of 5 ppb. With the exception of benzene, all other COCs (8 of 10) were not detected. Benzene was detected at a concentration (1.8 ppb) above its NYSDEC Groundwater Quality Standard (1 ppb), but toluene was detected at a concentration (0.38J ppb) below its NYSDEC Groundwater Quality Standard (5 ppb) at MW-28. Aniline concentrations have not exceeded the NYSDEC Groundwater Quality Standard since April 2010. The results of the Mann-Kendall Test for Trends show that benzene concentrations in the groundwater samples collected from MW-28 are trending downward.

- COCs either were not detected or detected below their respective NYSDEC Groundwater Quality Standard at MW-29 in October 2011. No COCs have exceeded the NYSDEC Groundwater Quality Standards in this well since May 2003.

- COCs either were not detected or detected below their respective NYSDEC Groundwater Quality Standard at MW-17R and MW-30 during the October 2011 sampling event.

- DO levels measured at MW-8SR, MW-27, and MW-28 between July and December 2011 are summarized in Table 4. The DO levels at MW-8SR ranged from 0.25 to 0.66ppm. The DO levels at MW-27 ranged from 0.36 to 0.79 ppm. The DO levels at MW-28 ranged from 0.42 to 0.85 ppm. Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm. Overall, DO levels detected at MW-27 and MW-28 are trending upward.

- *Downgradient perimeter monitoring locations*. There were no detections of COCs above the NYSDEC Groundwater Quality Standards at the four downgradient perimeter monitoring locations (MW-17R, MW-18, MW-23I and MW-23S) during the October 2011 sampling event (Table 3 and Figure 6).

Conclusions

The process control monitoring data presented in this report will continue to be used to monitor the effectiveness of the *in-situ* aerobic bioremediation treatment activities. The following conclusions are based on the process control monitoring data obtained to date.

- A closed-loop hydraulic cell continues to be maintained in Area 3.

- Operation of the Area 3 treatment system has not caused the freshwater/saltwater interface to upcone to the base of the withdrawal trench.

- COCs were not detected at concentrations above the NYSDEC Groundwater Quality Standards at any perimeter sampling locations in October 2011. These results provide another line of evidence that the groundwater in Area 3 is contained in the Area 3 treatment system. The closed-loop hydraulic cell in Area 3 supports this conclusion. The OU2 remediation goal of "mitigate the potential for migration beyond the site boundary of groundwater that contains concentrations of COCs in excess of their respective NYSDEC Class GA Groundwater Quality Standard" continues to be achieved.

- COC concentrations detected in the groundwater samples collected from Area 1 demonstrate a decrease since the *in-situ* bioremediation treatment activities began in July 1998. COC concentrations have continued to remain low since the *in-situ* aerobic bioremediation treatment program began in August 2006. In October 2011,

the COCs in this area were mostly non-detect or below their respective NYSDEC Groundwater Quality Standards, including aniline in groundwater at MW-33. These COC concentrations indicate that, for many years, Area 1 has met the NYSDEC Class GA Groundwater Quality Standards for toluene, trichloroethene, methylene chloride, and acetone, which is an objective of the OU2 ROD (NYSDEC 1997). More recently, Area 1 has met the NYSDEC Class GA Groundwater Quality Standard for aniline in groundwater, and COC concentrations within saturated soils have been reduced, controlled, or eliminated, in accordance with the OU2 ROD (NYSDEC 1997) objectives. A few COCs (e.g., N,N-dimethylaniline, benzene, ethylbenzene, and xylene) continue to be present at concentrations greater than their respective NYSDEC Groundwater Quality Standards.

- In the downgradient edge of Area 1, aniline was not detected in the groundwater sample from MW-33 during the October 2011 sampling event. Aniline concentrations previously detected in MW-33 were below the NYSDEC Groundwater Quality Standard for the seven sampling events conducted since November 2007, suggesting that the *in-situ* aerobic bioremediation treatment program facilitated the reduction of aniline.

- Based on the DO levels measured in Area 1 for July through December 2011, it does not appear that aerobic conditions (i.e., DO levels greater than 2 ppm) have been established beyond the points of injection.

- Overall, the COC groundwater concentrations within Area 2 have decreased during the last eleven sampling events since June 2006. The concentrations continue to be relatively low, excluding aniline detected at monitoring location TW-02RR and MW-36 in October and December 2011. In addition, N,N-dimethylaniline concentrations remain relatively low at MW-34, and aniline was not detected above NYSDEC Groundwater Quality Standards at this location during October 2011 sampling event. Overall, the results indicate that the in-situ aerobic bioremediation treatment program is facilitating the reduction of aniline in Area 2. COC concentrations within saturated soils have been reduced, controlled, or eliminated. To the extent practicable, for many years Area 2 has met the NYSDEC Class GA Groundwater Quality Standards for acetone, toluene, ethylbenzene, methylene chloride, and trichloroethene, in accordance with ROD objectives (NYSDEC 1997).

- The continuous supply of oxygen to groundwater in Area 2 appears to have reduced the rebound effect in the COC concentrations previously observed when

oxygen was used up after introducing periodic injections of hydrogen peroxide to the groundwater. Based on the DO levels measured in Area 2, it appears that aerobic conditions (i.e., DO levels greater than 2 ppm) have not been established beyond the points of injection. The aniline and DO concentrations for the second half of 2011 suggest that the oxygen is being used for the biodegradation processes soon after it is introduced to groundwater, resulting in little surplus of oxygen to increase the groundwater DO levels.

- The aniline concentration at MW-8SR in Area 3 decreased approximately 100 percent between the end of the anaerobic bioremediation treatment program in June 2006 and the October 2011 sampling event. These results indicate that the *in-situ* aerobic bioremediation treatment program is facilitating the reduction of aniline in Area 3. Similar to the results in Area 2, the continuous supply of oxygen to groundwater in Area 3 appears to have reduced the rebound effect of COC concentrations. Since June 2006, the average concentrations of aniline detected in Area 3 (MW-8SR, MW-27, and MW-28) have fluctuated, but overall have declined by several orders of magnitude. COC concentrations within saturated soils have been reduced, controlled, or eliminated. For many years Area 3 has met the NYSDEC Class GA Groundwater Quality Standards for acetone, methylene chloride, and trichloroethene, in accordance with the ROD (NYSDEC 1997).

- Based on the DO levels measured in Area 3 in July through December 2011, it appears that aerobic conditions were not achieved; however, DO levels have increased since initiating the *in-situ* aerobic bioremediation treatment. Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm. The aniline concentrations within Area 3 (i.e., MW-8SR, MW-27, and MW-28) decreased overall between June 2006 and December 2011, suggesting that the *in-situ* aerobic bioremediation treatment program facilitated the reduction of aniline. The aniline and DO concentrations suggest that oxygen is being used for the biodegradation processes soon after it is introduced to groundwater, resulting in little surplus of oxygen to increase the groundwater DO levels.

- In conclusion, the OU2 remedy continues to be protective of public health and the environment, and is compliant with the 1997 NYSDEC Record of Decision for OU2.

Recommendations

The *in-situ* aerobic bioremediation program generally has reduced concentrations of aniline, N,N-dimethylaniline, and other COCs at the site. ARCADIS recommends that an oxygen source continue to be introduced into Areas 2 and 3. In addition, aniline concentrations are consistently non-detect in Area 1, with N,N-dimethylaniline and benzene concentration consistently less than 10 ppb. In Area 1 concentrations are now at levels that are likely to continue degrading through natural processes. ARCADIS recommends that the dilute hydrogen peroxide amendments be continued in Area 1, as well as continuing the biannual monitoring to evaluate the effectiveness of the natural attenuation processes in the decrease of site COCs to below NYSDEC Groundwater Quality Standards.

Analytical results from the current *in-situ* aerobic bioremediation program indicate that a constant source of oxygen has supported the continued reduction of aniline concentrations in Areas 2 and 3 (i.e., TW-02RRR, MW-27, and MW-8SR). The removal of targeted soils, ORC® soil amendment, and the ORC®-amended groundwater introduced to the system of standpipes in Area 2 are anticipated to further enhance the degradation of site COCs. ARCADIS recommends maintaining the oxygen infusion system installed in Areas 2 and 3, the ORC®-amended groundwater injections to Area 2 standpipes (through February 2012); the oxygen diffuser in the Area 3 equalization tank; and the hydraulic modifications to the Area 3 system. The constant source of oxygen appears to have reduced the rebound effect on the aniline concentrations and result in a faster treatment time than was observed with the dilute hydrogen peroxide amendments. Further recommendations for the oxygen infusion systems in Area 2 and 3, supplemental oxygen amendments in Area 3 (i.e., ORC®-amended groundwater injections), and the hydraulics of the Area 3 system will be made based on results of the next biannual hydraulic monitoring and sampling event and DO level readings.

The Biannual Groundwater Monitoring Program activities will continue at the site (Table 1). The first biannual sampling event of 2012 is tentatively scheduled to be conducted during the week of April 9. ARCADIS recommends continuing to measure DO levels on site monthly at MW-36R and TW-02RRR in Area 2, and MW-27, MW-28, and MW-8SR in Area 3, and discontinue monitoring at MW-33 in Area 1.

The *in-situ* aerobic biodegradation treatment activities will continue to be conducted in accordance with the site-specific Health and Safety Plan (ARCADIS 2010b).

As discussed in this PRR and summarized in Table 1, the monitoring activities conducted at the site are included in the Biannual Groundwater Monitoring Program and the revised Process Control Monitoring Program. The activities included in the Biannual Groundwater Monitoring Program will continue, and will include biannual collection of chemical and hydraulic data from downgradient perimeter wells/piezometers to ascertain whether groundwater that contains COC concentrations in excess of their respective NYSDEC Groundwater Quality Standards is migrating beyond the site boundary.

If you have any questions or require additional information, please do not hesitate to contact me at 315.671.9210.

Sincerely,

ARCADIS of New York, Inc.

David J. Ulm
Senior Vice President

CS/lar

Copies:
Ms. Susan Edwards, NYSDEC (w/out Attachment B)
Mr. Harry Warner, NYSDEC (w/out Attachment B)
Mr. Richard Jones, NYSDOH (w/out Attachment B)
Ms. Jean Mescher, McKesson Corporation (w/out Attachment B)
Mr. Douglas Morrison, Bristol-Myers Squibb Company (w/out Attachment B)
Mr. Christopher Young, P.G., de maximis, inc. (w/out Attachment B)

References:

ARCADIS. 2010a. Modification proposal letter. September 3, 2010.

ARCADIS. 2010b. Health and Safety Plan. October 2010.

Blasland, Bouck & Lee, Inc. 1999a. Site Operation and Maintenance Plan. August 1999.

Blasland, Bouck & Lee, Inc. 1999b. Site Operation and Maintenance Plan Addendum letter. December 29, 1999.

New York State Department of Environmental Conservation. 1994. Record of Decision OU1. March 18, 1994.

New York State Department of Environmental Conservation. 1997. Record of Decision OU2. March 19, 1997.

New York State Department of Environmental Conservation. 1998. Technical Operational Guidance Series 1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998. http://www.dec.ny.gov/docs/water_pdf/togs111.pdf

New York State Department of Environmental Conservation. 2010a. DER-10: Technical Guidance for Site Investigation and Remediation. May 3, 2010. http://www.dec.ny.gov/docs/remediation_hudson_pdf/der10.pdf

New York State Department of Environmental Conservation. 2010b. Modification proposal response letter. September 23, 2010.

New York State Department of Environmental Conservation. 2010c. DER-33: Institutional Controls: A Guide to Drafting and Recording Institutional Controls. December 3, 2010. http://www.dec.ny.gov/docs/remediation_hudson_pdf/der33.pdf

ARCADIS

Tables

Table 1. Revised Long-Term Hydraulic and COC Process Control Monitoring Schedule, Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Location	Annual Sampling Schedule		
	Shallow/Deep Well[2]	First Sampling Event	Second Sampling Event
Sentinel Wells			
MW-3S[1]	--	C	C
MW-4S[1]	--	C[3]	NM
Area 1			
TW-01	--	C	C
MW-9S	--	C	C
MW-31	--	C	C
MW-32	--	C	C
MW-33[1]	--	C	C
PZ-F	Shallow	H	H
PZ-G	Shallow	H	H
PZ-HR	Shallow	H	H
PZ-P	Shallow	H	H
PZ-Q	Shallow	H	H
PZ-R	Shallow	H	H
PZ-S	Shallow	H	H
Area 2			
TW-02RRR	--	C	C
MW-34	--	C	C
MW-35	--	C	C
MW-36R[1]	--	C	C
PZ-I	Shallow	H	H
PZ-J	Shallow	H	H
PZ-T	Shallow	H	H
PZ-U	Shallow	H	H
PZ-V	Shallow	H	H
Area 3			
MW-8SR[1]	--	C	C
MW-11S	Shallow	H	H
MW-27[1]	--	C	C
MW-28	--	C	C
MW-29[1]	--	C	C
MW-30[1]	--	C	C
PZ-A	Shallow	H	H
PZ-B	Shallow	H	H
PZ-C	Shallow	H	H
PZ-D	Shallow	H	H
PZ-E	Shallow	H	H
PZ-K	Shallow	H	H
PZ-L	Shallow	H	H
PZ-M	Shallow	H	H
PZ-N	Shallow	H	H
PZ-O	Shallow	H	H
Collection Sump	Shallow	H	H
Downgradient Perimeter Monitoring Locations			
MW-17R	--	C	C
MW-18	Deep	C	C
MW-23I	Deep	C	C
MW-23S	Shallow	C, H	C, H
PZ-4S[1]	--	C	NM
PZ-4D[1]	Shallow	C, H	H
Barge Canal	--	H	H

See notes on page 2.

Table 1. Revised Long-Term Hydraulic and COC Process Control Monitoring Schedule, Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Notes:

[1] Methanol not analyzed for in constituent of concern (COC) monitoring.
[2] As per potentiometric surface mapping.
[3] MW-4S is included in the sampling program every third biannual sampling event. The next samples will be collected during the first sampling event of 2012.

1. The hydraulic monitoring identified in this table will be conducted semiannually. The hydraulic monitoring also includes measuring the conductivity of groundwater recovered from Area 3 from a sampling port located before the equalization tank.
2. Field groundwater parameters including pH, temperature, conductivity, dissolved oxygen and oxidation reduction potential are measured during each COC sampling event.
3. Each of the monitoring wells and piezometers used for hydraulic and COC monitoring during the semiannual monitoring event are checked for the presence (if any) of nonaqueous phase liquid
4. Based on the results obtained, the scope and/or frequency for the hydraulic and/or COC components of the long-term process control monitoring program, as detailed herein, may be modified. Any modifications will be made in consultation with the NYSDEC.
5. This table is based on the NYSDEC-approved Operation and Maintenance Plan (Blasland, Bouck & Lee 1999), including the NYSDEC-approved December 29, 1999 addendum with the modifications detailed in the October 2004 Biannual Process Control Monitoring Report and September 3, 2010 modification proposal letter to the NYSDEC.

H = Hydraulic monitoring (groundwater level measurements).
C = Monitoring for COCs.
NM = Not monitored.
-- = Not used for potentiometric surface mapping.

Table 2. Summary of Groundwater Level Measurements, Aerobic Bioremediation Treatment Program, October 2006 through October 2011, Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Location	Reference Elevation (feet AMSL)	10/30/06	6/6/07	11/12/07	3/24/08	8/25/08	3/23/09	9/14/09	4/26/10	10/11/10	4/4/11	10/24/11
Canal	393.39	364.29	362.99	362.06	364.34	363.21	363.54	362.89	362.97	363.49	362.07	363.71
Collection Sump	372.81	363.18	362.26	361.86	363.81	362.14	362.20	362.18	362.18	360.72	359.90	361.33
MW-3S[1]	376.54	369.08	--	367.60	367.93	365.19	367.32	365.50	365.67	367.95	369.21	--
MW-11S	373.50	366.11	364.27	363.88	365.69	363.86	364.88	363.89	364.42	364.30	365.00	364.18
MW-18[1]	372.57	363.82	362.63	362.32	363.51	362.26	363.16	362.22	362.67	362.87	363.82	--
MW-23I[1]	372.77	366.43	365.02	364.74	366.12	364.64	365.69	364.67	365.19	365.38	366.57	--
MW-23S	372.61	365.28	362.98	362.56	364.81	362.62	363.50	362.63	362.99	362.71	364.57	362.66
MW-24SR	375.55	366.49	365.21	364.83	366.26	364.73	365.81	364.79	365.32	365.81	366.60	365.63
MW-25S	373.39	365.26	363.32	362.87	364.84	362.88	363.97	362.89	363.34	363.30	364.10	363.17
PZ-4D	376.11	366.64	365.29	364.98	366.39	364.90	365.96	364.94	365.49	366.02	366.74	365.78
PZ-5D	375.58	366.87	365.49	365.19	366.69	365.09	366.21	365.14	365.01	366.09	366.99	366.02
PZ-A	373.94	365.62	363.11	362.72	364.83	362.96	363.56	362.95	362.28	362.35	362.68	362.53
PZ-B	373.92	365.85	363.12	362.62	365.03	362.87	363.64	362.83	362.96	362.22	363.24	362.47
PZ-C	374.85	367.14	365.85	365.30	367.15	365.16	366.71	365.23	366.37	367.11	367.88	366.6
PZ-D	375.12	367.68	365.98	365.40	367.29	365.28	366.81	365.40	366.57	367.17	368.20	366.87
PZ-E	374.12	368.13	365.16	364.07	366.58	364.14	366.82	364.20	364.25	364.16	364.83	364.18
PZ-F	377.06	368.32	366.18	365.76	367.99	365.50	367.41	365.69	366.72	367.10	368.10[3]	367.04
PZ-G	377.16	368.64	366.28	365.82	368.14	365.94	367.29	367.22	367.32	367.36	368.12	367.17
PZ-HR	376.99	368.31	366.23	365.74	368.00	365.48	367.41	365.63	366.65	367.15	368.00[3]	367.04
PZ-I	375.15	369.00	366.49	365.92	368.55	365.50	367.97	365.71	367.04	367.49	368.60	367.47
PZ-J	374.89	367.96	366.16	365.82	367.69	365.55	367.20	365.70	366.55	367.05	367.81	366.94
PZ-K	373.19	365.58	363.36	362.91	364.96	363.08	363.80	363.04	363.33	363.34	361.94	362.97
PZ-L	374.62	365.23	362.94	362.63	364.64	362.79	363.39	362.80	363.80	362.36	362.52	362.54
PZ-M	374.35	365.60	363.54	363.11	365.13	363.30	364.00	363.31	363.62	363.04	363.47	363.22
PZ-N	376.94[2]	367.51	365.76	365.26	367.05	365.09	366.63	365.17	366.22	367.01	367.79	366.62
PZ-O	375.36	365.42	363.22	362.82	365.01	362.91	363.94	362.93	363.35	362.90	363.57	362.94
PZ-P	376.89	368.30	366.31	365.83	368.06	365.58	367.51	365.75	366.76	367.26	368.08	367.15
PZ-Q	377.61	368.61	366.33	365.83	368.23	365.57	367.61	365.77	366.78	367.26	368.13	367.21
PZ-R	377.05	368.51	366.19	365.79	368.20	365.55	367.57	365.73	366.74	367.24	368.10	367.15
PZ-S	378.13	372.48	366.51	365.81	368.21	365.55	367.60	365.74	366.76	367.13	369.67[3]	367.48
PZ-T	376.25	368.04	366.24	365.84	367.89	365.52	367.37	365.66	366.63	367.12	367.94	367.00
PZ-U	375.35	367.99	366.07	365.80	367.75	365.52	367.25	365.66	366.52	367.05	367.83	366.92
PZ-V	375.78	367.97	366.17	365.78	367.78	365.48	367.24	365.64	366.52	367.04	367.81	366.93

Notes:

[1]Well not used in potenteniometric surface of the shallow hydrogeologic unit sand layer.

[2]The reference elevation for PZ-N was 376.02 feet AMSL prior to November 16, 2000. The new reference elevation is 376.94 feet AMSL.

[3]Groundwater Elevations at PZ-HR, PZ-S and PZ-F (Area 1) were not used for contouring due to standing water at these locations.

AMSL = above mean sea level (National Geodetic Vertical Datum of 1929).

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through December 2011, Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				50	1	5	5	5	NS	5	5	1	5
MW-3S	3/09	365.1	350.1	<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			<10	0.17 J	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	10/10			<10	<1.0	<1.0	<1.0	<3.0	NA	<1.0	<5.2	<1.0	<1.0
	4/11			<10	<1.0	<1.0	<1.0	<3.0	NA	<1.0	<5.3 J	<1.1 J	<1.0
	10/11			<10	<1.0	0.35 J	<1.0	<3.0	NA	<1.0	<5.0	<1.0	<1.0
MW-4S	10/10	365.5	350.5	<10 [<10]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<3.0 [<3.0]	<500 J [<500 J]	<1.0 [<1.0]	<5.0 [<5.0]	<1.0 [<1.0]	<1.0 [<1.0]
MW-8SR[B]	3/09	362.7	352.7	6.5 J [5.8 J]	6.8 [6.8]	10 [10]	66 [63]	140 [140]	<500 [<500]	<1.0 [<1.0]	2,200 [1,800]	<12 [<12]	<1.0 [<1.0]
	6/09			NA	NA	NA	NA	NA	NA	NA	7,000	<50	NA
	9/09			<10 [8.3 J]	8.5 J [7.9]	6.8 J [6.5]	44 J [38]	81 J [71]	<500 [<500]	<1.0 J [<1.0]	4,000 [3,400]	<20 [<20]	<1.0 [<1.0]
	4/10			<10 [<10]	4.2 [3.5]	4.6 [3.7]	23 J [18]	41 [33]	<500 [<500]	<1.0 [<1.0]	370 J [720 J]	1.0 J [<5.0]	<1.0 [<1.0]
	10/10			<10	2.7	2.0	16	31	NA	<1.0	220	1.6	<1.0
	4/11			5.9 J [4.3 J]	3.2 [3.2]	2.8 [2.6]	10 [8.8]	32 [31]	NA	<1.0 [<1.0]	57 J [64]	1.5 [1.6]	<1.0 [<1.0]
	10/11			<10 [<10]	1.9 [2.0]	1.3 [1.3]	2.0 [2.1]	14 [15]	NA	<1.0 [<1.0]	<5.0 [<5.0]	2.6 [<1.0]	<1.0 [<1.0]
MW-9[C]	3/09	365.6	356	<10	1.2	2.5	27	65	<500	<1.0	<5.0	4.2	<1.0
(Replaced by MW-9S)	9/09			<10	1.7	2.2	20	70	730	<1.0	<5.0	4.1	<1.0
	4/10			<10	0.86 J	2.1	26	69	<500	<1.0	<5.0	6.5	<1.0
	10/10			<10	1.3	1.9	11	45	<500 J	<1.0	<5.1	7.5	<1.0
	4/11			<10	0.91 J	2.6	29	89	<500	<1.0	<5.3	5.4	<1.0
	10/11			<10	1.2	1.8	4.2	41 J	<500	<1.0	<5.0	7.6	<1.0
MW-17[D]	3/09	365.7	356.1	<10	2.3	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
(Replaced by MW-17R)	9/09			<10 J	0.86 J	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	4/10			<10	0.22 J	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	10/10			<10	1.3	<1.0	<1.0	<3.0	<500 J	<1.0	<5.6	<1.1	<1.0
	4/11			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.3 J	<1.1 J	<1.0
	10/11			<10	<1.0	0.19 J	<1.0	<3.0 J	<500	<1.0	<5.0	<1.0	<1.0
MW-18	3/09	325.15	316.15	<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	33
	6/10			<10	<1.0	<1.0	<1.0	<3.0	NA	<1.0	NA	NA	<1.0
	10/10			<10	<1.0	<1.0	<1.0	<3.0	<500 J	<1.0	<5.1	<1.0	<1.0
	4/11			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.3	<1.1	<1.0
	10/11			<10	<1.0	0.23 J	<1.0	<3.0 J	<500	<1.0	<5.0	<1.0	<1.0
MW-23S	3/09	364.1	354.1	<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	10/10			3.7 J	<1.0	<1.0	<1.0	<3.0	<500 J	<1.0	<5.0	<1.0	<1.0
	4/11			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.3	<1.1	<1.0
	10/11			<10	<1.0	0.31 J	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
MW-23I	3/09	341.2	336.2	<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	8.4
	6/10			<10	<1.0	<1.0	<1.0	<3.0	NA	<1.0	NA	NA	<1.0
	10/10			<10	<1.0	<1.0	<1.0	<3.0	<500 J	<1.0	<5.0	<1.0	<1.0
	4/11			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.3	<1.1	<1.0
	10/11			<10	<1.0	0.29 J	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0

See notes on Page 4.

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through December 2011, Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				50	1	5	5	5	NS	5	5	1	5
MW-27	3/09	362.5	354.5	14 J	8.7	9.4	36	88	<500	<1.0	8,200 J	<50 J	<1.0
	6/09			NA	NA	NA	NA	NA	NA	NA	7,400	<50	NA
	9/09			10	6.2	6.9	5.9	23	<500	<1.0	2,100	<10	<1.0
	4/10			<10	4.5	2.4	6.1	10	<500	<1.0	1,300	<10	<1.0
	10/10			<10	2.7	1.3	1.4	3.4	NA	<1.0	220	2.5	<1.0
	4/11			3.9 J	3.1	5.7	5.1	9.1	NA	<1.0	1,000	<11	<1.0
	10/11			<10	2.1	1.3	2.2	3.1	NA	<1.0	36	2.7	<1.0
MW-28	3/09	363.6	355.6	<10	3.5	0.3 J	0.8 J	1.1 J	851	<1.0	18	<0.5	<1.0
	9/09			<10	3.1	0.25 J	0.32 J	0.48 J	<500	<1.0	6.7	<1.0	<1.0
	4/10			<10	2.8	0.23 J	0.60 J	0.46 J	<500	<1.0	<5.0	0.49 J	<1.0
	10/10			<10	1.8	<1.0	<1.0	<3.0	<500 J	<1.0	2.4 J	0.60 J	<1.0
	4/11			4.3 J	2.3	0.11 J	<1.0	<3.0	<500	<1.0	3.9 J	0.75 J	<1.0 B
	10/11			<10	1.8	0.38 J	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
MW-29	3/09	362.9	345.9	<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			<10	<1.0	0.16 J	<1.0	<3.0	<500	<1.0	<5.0	0.29 J	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	10/10			<10	<1.0	<1.0	<1.0	<3.0	NA	<1.0	<5.2	<1.0	<1.0
	4/11			<10	<1.0	<1.0	<1.0	<3.0	NA	<1.0	<5.3 J	<1.1 J	<1.0
	10/11			<10	<1.0	0.22 J	<1.0	<3.0 J	NA	<1.0	<5.0	0.22 J	<1.0
MW-30	3/09	363.5	355.5	<10	0.8 J	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			<10	0.78 J	0.17 J	<1.0	<3.0	<500	<1.0	21	<1.0	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	10/10			<10 J	0.14 J	<1.0	<1.0	<3.0	NA	<1.0	<5.1	<1.0	37
	4/11			<10	<1.0	<1.0	<1.0	<3.0	NA	<1.0	<5.3 J	<1.1 J	<1.0
	10/11			<10	<1.0	0.18 J	<1.0	<3.0 J	NA	<1.0	<5.0	<1.0	<1.0
MW-31	3/09	363.7	355.4	9.4 J	8.3	0.6 J	< 1.0	0.8 J	<500	<1.0	<5.0	2.3	<1.0
	9/09			<10	10	0.49 J	<1.0	2.0 J	730	<1.0	<5.0	2.5	<1.0
	4/10			<10	4.8	0.40 J	<1.0	1.3 J	<500	<1.0	<5.0	2.3	<1.0
	10/10			<10	6.9	0.50 J	<1.0	1.5 J	<500 J	<1.0	<5.3	3.5	<1.0
	4/11			<10	8.3	0.77 J	<1.0	2.5 J	<500	<1.0	<5.3	2.3	<1.0
	10/11			<10	5.7	0.62 J	<1.0	1.5 J	<500	<1.0	<5.0	3.5	<1.0
MW-32	3/09	364	356	<10	0.5 J	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			<10	<1.0	<1.0	<1.0	<3.0	1,200	<1.0	<5.0	1.1	<1.0
	4/10			<10	0.23 J	<1.0	<1.0	<3.0	<500	<1.0	<5.0	0.89 J	<1.0
	10/10			<10	<1.0	<1.0	<1.0	<3.0	<500 J	<1.0	<5.2	0.87 J	<1.0
	4/11			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.3	<1.1	<1.0
	10/11			<10	<1.0	0.19 J	<1.0	<3.0 J	<500	<1.0	<5.0	1.5	<1.0

See notes on Page 4.

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through December 2011, Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				50	1	5	5	5	NS	5	5	1	5
MW-33	3/09	344.1	356.1	<10	3.2	<1.0	<1.0	<3.0	<500	<1.0	<5.0	2.4	<1.0
	9/09			<10	2.6	0.20 J	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	4/10			<10	1.6	<1.0	<1.0	<3.0	<500	<1.0	<5.0	2.0	<1.0
	10/10			<10	1.7	<1.0	<1.0	<3.0	NA	<1.0	<5.1	2.7	<1.0
	4/11			<10	0.79 J	<1.0	<1.0	<3.0	NA	<1.0	<5.3	1.9	<1.0
	10/11			<10	0.58 J	0.12 J	<1.0	<3.0	NA	<1.0	<5.3	1.9	<1.0
MW-34	3/09	362.7	354.7	14	1.4	0.7 J	<1.0	1.5 J	<500	<1.0	12	2.0	<1.0
	9/09			24	<1.0	0.64 J	<1.0	1.7 J	1,000	<1.0	<5.0	2.5	<1.0
	4/10			50 J	0.82 J	0.42 J	<1.0	1.4 J	<500	<1.0	<5.0	2.4	<1.0
	10/10			20	1.0	0.44 J	<1.0	1.3 J	<500 J	<1.0	1.8 J	2.9	<1.0
	4/11			16	1.7	0.74 J	<1.0	2.0 J	<500	<1.0	10	2.7	<1.0
	10/11			350	1.2	0.71 J	<1.0	0.90 J	<500	<1.0	<5.6	2.5	<1.0
MW-35	3/09	363	355	<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			6.5 J	<1.0	0.16 J	<1.0	<3.0	1,100	<1.0	<5.0	<1.0	<1.0
	4/10			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	10/10			<10	<1.0	<1.0	<1.0	<3.0	<500 J	<1.0	<5.0	<1.0	<1.0
	4/11			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.6	<1.1	<1.0
	10/11			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.1	<1.0	<1.0
MW-36[B]	3/09	363.6	355.6	28	2.4	0.8 J	<1.0	2.8 J	<500	<1.0	150	2.8	<1.0
(Replaced by MW-36R)	6/09			NA	NA	NA	NA	NA	NA	NA	460	<5.0	NA
	9/09			21	3.1	0.96 J	<1.0	3.2	<500	<1.0	390	3.1	<1.0
	4/10			<10 J	3.3	1.1	0.26 J	5.4	<500	<1.0	77	2.6	<1.0
	10/10			12	3.9	1.2	0.28 J	4.8	<500 J	<1.0	620	<5.0	<1.0
	4/11			<10	4.3	0.95 J	<1.0	4.4	NA	<1.0	310	4.0	<1.0
	10/11			<10	1.8	0.66 J	<1.0	1.4 J	NA	<1.0	92	3.6	<1.0
	12/11			NA	NA	NA	NA	NA	NA	NA	120	NA	NA
TW-01	3/09	365.1	355.4	<10	1.9	<1.0	<1.0	0.6 J	22,300	<1.0	<5.0	<0.5	<1.0
	9/09			2.9 J	<1.0	0.11 J	<1.0	<3.0	970	<1.0	<5.0	1.1	<1.0
	4/10			<10	0.32 J	<1.0	<1.0	<3.0	<500	<1.0	<5.0	1.0	<1.0
	10/10			<10	<1.0	<1.0	<1.0	<3.0	<500 J	<1.0	<5.3	1.3	<1.0
	4/11			<10	0.21 J	<1.0	<1.0	<3.0	<500	<1.0	<5.3	<1.1	<1.0
	10/11			<10	<1.0	<1.0	<1.0	<3.0 J	<500	<1.0	<5.6	1.6	<1.0
TW-02RR[BC]	3/09	363.3	353.3	<10 [<10]	5.0 [4.6]	1.0 [1.0 J]	1.5 [1.6]	4.2 [4.1]	<500 [<500]	<1.0 [<1.0]	2,000 [1,600]	<10 [<10]	<1.0 [<1.0]
(Replaced by TW-02RRR)	6/09			NA	NA	NA	NA	NA	NA	NA	2,800	<20	NA
	9/09			<10 [<10]	4.3 [4.2]	0.79 J [0.81 J]	1.2 [1.3]	3.5 [3.6]	1,000 [1,200]	<1.0 [<1.0]	1,600 [1,500]	<10 [<10]	<1.0 [<1.0]
	4/10			9.5 J [12 J]	4.1 [4.0]	0.78 J [0.75 J]	1.2 [1.2]	4.2 [4.0]	<500 [<500]	<1.0 [<1.0]	2,800 J [3,100 J]	<20 J [<20 J]	<1.0 [<1.0]
	10/10			<10 [<10]	3.3 [3.0]	0.82 J [0.76 J]	1.0 [0.91 J]	3.6 [3.6]	<500 J [<500 J]	<1.0 [<1.0]	760 [810]	<5.0 [2.2 J]	<1.0 [<1.0]
	4/11			<10 [<10]	2.1 [2.0]	0.74 J [0.75 J]	1.2 [1.3]	5.2 [5.3]	<500 [<500]	<1.0 [<1.0]	1.9 J [2.1 J]	3.4 [3.3]	<1.0 [<1.0]
	10/11			<10 [<10]	1.2 [1.1]	0.53 J [0.48 J]	0.67 J [0.69 J]	1.5 J [1.4 J]	<500 [<500]	<1.0 [<1.0]	1,300 D [1,500 D]	5.5 [6.2]	<1.0 [<1.0]
	12/11			NA	NA	NA	NA	NA	NA	NA	1,400	NA	NA
PZ-4D	3/09	350.8	345.9	<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	5.3 J
	6/10			<10	<1.0	<1.0	<1.0	<3.0	NA	<1.0	NA	NA	<1.0
	4/11			<10	<1.0	<1.0	<1.0	<3.0	NA	<1.0	<5.3	<1.1	<1.0
PZ-4S	3/09	362.79	357.88	<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	17
	6/10			<10 J	<1.0	<1.0	<1.0	<3.0	NA	<1.0	NA	NA	<1.0
	4/11			<10 J	<1.0	<1.0	<1.0	<3.0	NA	<1.0	<5.3	<1.1	<1.0

See notes on Page 4.

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through December 2011, Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

General Notes:

1. Concentrations are presented in micrograms per liter, which is equivalent to parts per billion.
2. Compounds detected are indicated by bold-faced type.
3. Detections exceeding New York State Department of Environmental Conservation (NYSDEC) Groundwater Standards (TOGS 1.1.1; NYSDEC, 1998) are indicated by shading.
4. Duplicate sample results are presented in brackets (e.g., [14]).
5. Replacement wells for MW-8 and MW-9 were installed 8/95.
6. Replacement wells for MW-17and TW-02 were installed 11/97 - 12/97.
7. The sampling events in 9/06 and 8/07 were interim sampling events to gauge the effects of the in-situ aerobic biodegradation treatment activities.
8. The laboratory analytical results for the duplicate sample collected from monitoring well MW-27 during the 8/07 sampling event indicated the presence of aniline at 4,300 micrograms per liter. Because aniline was not detected in the original sample, MW-27, DUP-1, and TW-02RR were all reanalyzed outside of hold time due to the difference in concentration between the parent sample and the field duplicate. The duplicate result for aniline was positively identified; however, the associated numerical value is an estimated concentration only. The concentration for TW-02RR was significantly lower than the original result. Therefore, the original result for TW-02RR was qualified as estimated.
9. The sampling event in 6/10 was an interim sampling event to check for the presence of methylene chloride.

Superscript Notes:

[A] = Data presented is total xylenes (m- and p-xylenes and o-xylenes).
[B] = Wells MW-8S and TW-02R were abandoned in 8/04 and replacement wells MW-8SR and TW-02RR were installed in 8/04.
[C] = Well MW-9 was abandoned during OU1 soil remediation activities (1994).
[D] = Wells/piezometers MW-17 was abandoned 11/97 - 1/98.
[E] = Wells/piezometers MW-36, PZ-5S, PZ-W, and TW-02RR were abandoned 11/10. Replacement wells TW-02RRR (replaced TW-02RR) and MW-36R (replaced MW-36 and PZ-W) were installed in 11/10.

Abbreviations:

AMSL = Above mean sea level (NGVD of 1929).
NA = Compound was not analyzed for in the sample.
NI = No screen.
NS = Standard not available.
TOGS = Technical & Operational Guidance Series

Analytical Qualifiers:

B = The compound was found in associated method blank.
J = The compound was positively identified; however, the numerical value is an estimated concentration only.
< = Compound was not detected at the listed quantitation limit.
R = The sample results were rejected.

Table 4. Summary of Dissolved Oxygen Measurements, August 2006 through December 2011, Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Date	Dissolved Oxygen (ppm)					
	MW-33 (Area 1)	MW-36R (Area 2)	TW-02RRR (Area 2)	MW-27 (Area 3)	MW-28 (Area 3)	MW-8SR (Area 3)
8/21/06	N/R	N/R	N/R	N/R	3.35	N/R
8/28/06	0.28	N/R	N/R	0.88	2.18	N/R
9/1/06	0.53	N/R	N/R	0.41	0.40	N/R
9/8/06	0.22	N/R	N/R	0.42	0.53	N/R
9/21/06	0.17	N/R	N/R	0.21	0.37	N/R
9/29/06	0.28	N/R	N/R	0.37	0.40	N/R
10/6/06	0.16	N/R	N/R	0.43	0.29	N/R
10/13/06	0.21	N/R	N/R	0.33	0.31	N/R
10/28/06	0.17	N/R	N/R	0.24	0.29	N/R
11/10/06	0.37	N/R	N/R	0.33	0.38	N/R
11/16/06	0.27	N/R	N/R	0.23	0.21	N/R
11/22/06	0.41	N/R	N/R	0.37	0.42	N/R
12/4/06	0.29	N/R	N/R	0.23	0.32	N/R
12/7/06	0.24	N/R	N/R	0.22	0.29	N/R
12/14/06	0.57	N/R	N/R	0.27	0.32	N/R
1/7/07	0.30	N/R	N/R	0.27	0.21	N/R
1/12/07	0.24	N/R	N/R	0.27	0.30	N/R
1/19/07	0.23	N/R	N/R	0.20	0.37	N/R
1/26/07	0.26	N/R	N/R	0.61	0.57	N/R
2/9/07	0.24	N/R	N/R	0.28	0.44	N/R
2/22/07	0.33	N/R	N/R	0.44	0.30	N/R
3/2/07	0.62	N/R	N/R	0.20	0.36	N/R
3/16/07	0.29	N/R	N/R	0.37	0.55	N/R
3/23/07	0.25	N/R	N/R	0.22	0.46	N/R
3/30/07	0.47	N/R	N/R	0.45	0.79	N/R
4/5/07	0.31	N/R	N/R	0.59	0.91	N/R
4/19/07	0.32	N/R	N/R	0.27	0.73	N/R
4/26/07	0.26	N/R	N/R	0.49	0.48	N/R
5/11/07	0.50	N/R	N/R	0.43	0.58	N/R
5/25/07	0.22	N/R	N/R	0.53	0.81	N/R
6/1/07	0.30	N/R	N/R	0.32	0.70	N/R
6/29/07	0.48	0.90	N/R	1.87	2.76	N/R
7/3/07	0.21	0.48	N/R	0.43	0.66	N/R
7/13/07	0.38	0.38	N/R	0.68	1.18	N/R
7/19/07	0.36	0.22	N/R	0.52	0.98	N/R
7/27/07	0.24	0.32	N/R	0.50	0.86	N/R
8/3/07	0.47	0.47	N/R	0.57	0.79	N/R
8/9/07	0.63	0.31	N/R	0.42	0.70	N/R
8/16/07	0.37	0.31	N/R	0.40	0.85	N/R
8/24/07	0.38	0.33	N/R	0.50	0.88	N/R
8/31/07	0.54	0.40	N/R	0.52	0.77	N/R
9/7/07	0.47	0.40	N/R	0.35	0.52	N/R
9/14/07	0.40	0.38	N/R	0.39	0.83	N/R
9/21/07	0.36	0.31	N/R	0.34	0.46	N/R
9/28/07	0.28	0.43	N/R	0.57	0.71	N/R
10/5/07	0.38	0.41	N/R	0.41	0.68	N/R
10/12/07	0.41	0.44	N/R	0.65	1.03	N/R
10/19/07	0.44	0.52	N/R	0.59	1.02	N/R
10/26/07	0.32	0.50	N/R	0.71	1.04	N/R
11/2/07	0.38	0.48	N/R	0.44	0.90	N/R
11/9/07	0.43	0.43	N/R	0.68	1.04	N/R
11/16/07	0.50	0.64	N/R	0.33	0.38	N/R
11/21/07	0.56	0.32	N/R	0.44	1.24	N/R
11/30/07	0.42	0.51	N/R	0.84	1.28	N/R
12/7/07	0.44	0.41	N/R	0.54	0.66	N/R
12/14/07	0.49	0.55	N/R	0.55	1.02	N/R
12/20/07	0.45	0.44	N/R	0.89	0.90	N/R
12/28/07	0.42	0.46	N/R	0.56	1.10	N/R
1/4/2008	0.46	0.39	N/R	0.77	0.89	N/R
1/11/2008	0.48	0.36	N/R	0.64	0.91	N/R
1/18/2008	0.45	0.44	N/R	0.74	1.02	N/R
1/25/2008	0.42	0.33	N/R	0.96	0.92	N/R
2/1/2008	0.43	0.38	N/R	0.89	1.00	N/R

See notes on page 3.

Table 4. Summary of Dissolved Oxygen Measurements, August 2006 through December 2011, Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Date	Dissolved Oxygen (ppm)					
	MW-33 (Area 1)	MW-36R (Area 2)	TW-02RRR (Area 2)	MW-27 (Area 3)	MW-28 (Area 3)	MW-8SR (Area 3)
2/8/2008	0.42	0.61	N/R	0.63	0.77	N/R
2/15/2008	0.46	0.54	N/R	0.86	0.99	N/R
2/22/2008	0.53	0.51	N/R	0.84	0.71	N/R
2/29/2008	0.44	0.45	N/R	0.73	0.92	N/R
3/7/2008	0.61	0.45	N/R	0.74	1.01	N/R
3/14/2008	0.65	0.34	N/R	0.77	0.82	N/R
3/21/2008	0.65	0.46	N/R	0.63	0.81	N/R
3/28/2008	0.62	0.33	N/R	0.71	0.87	N/R
4/4/2008	0.66	0.44	N/R	0.68	0.98	N/R
4/9/2008	0.77	0.35	N/R	0.54	0.79	N/R
4/20/2008	0.68	0.44	N/R	0.64	0.77	N/R
4/25/2008	0.48	0.61	N/R	0.43	0.76	N/R
5/2/2008	0.44	0.48	N/R	0.66	0.79	N/R
5/9/2008	0.46	0.41	N/R	0.67	0.81	N/R
5/16/2008	0.49	0.44	N/R	0.79	0.97	N/R
5/22/2008	0.38	0.4	N/R	0.43	0.59	N/R
5/30/2008	0.44	0.34	N/R	0.72	0.55	N/R
6/6/2008	0.31	0.33	N/R	0.40	0.67	N/R
6/13/2008	0.38	0.37	N/R	0.48	0.58	N/R
6/20/2008	0.41	0.70	N/R	0.40	0.58	N/R
6/27/2008	0.68	0.90	N/R	0.69	1.02	N/R
7/2/2008	0.97	0.88	N/R	1.03	1.18	N/R
7/10/2008	1.07	0.86	N/R	1.24	1.40	N/R
7/18/2008	2.06	1.89	N/R	2.03	2.31	N/R
7/23/2008	1.94	1.75	N/R	1.98	2.42	N/R
8/1/2008	1.29	1.12	N/R	1.27	1.48	N/R
8/8/2008	1.21	1.38	N/R	1.43	1.71	N/R
8/15/2008	1.29	1.53	N/R	1.68	1.94	N/R
8/22/2008	1.06	1.05	N/R	1.07	1.40	N/R
8/29/2008	1.18	0.98	N/R	1.04	1.32	N/R
9/5/2008	0.90	0.78	N/R	1.02	1.17	N/R
9/12/2008	0.85	0.83	N/R	0.87	1.00	N/R
9/19/2008	0.91	1.03	N/R	0.97	1.07	N/R
9/25/2008	0.74	0.68	N/R	0.74	0.96	N/R
10/3/2008	0.77	0.54	N/R	0.81	0.92	N/R
10/10/2008	0.71	0.58	N/R	0.77	1.03	N/R
10/17/2008	0.69	0.62	N/R	0.70	0.98	N/R
10/23/2008	0.66	0.89	N/R	0.91	0.71	N/R
10/31/2008	0.47	0.50	N/R	0.62	0.68	N/R
11/7/2008	0.42	0.58	0.43	0.53	0.53	0.60
11/14/2008	0.55	0.66	1.15	0.74	0.63	0.70
11/21/2008	0.90	0.81	0.90	1.02	1.20	1.02
11/25/2008	0.90	0.78	0.88	0.80	1.12	0.88
12/4/2008	0.74	0.78	0.76	0.94	1.02	0.92
12/12/2008	0.77	0.79	0.79	0.96	1.09	0.88
12/18/2008	0.80	0.83	0.80	0.84	1.03	0.86
12/22/2008	0.78	0.82	0.79	0.91	1.09	0.87
12/29/2008	0.83	0.80	0.86	0.84	0.98	0.93
1/9/2009	1.01	0.97	0.96	1.00	1.33	1.02
1/13/2009	1.12	0.96	0.94	0.98	1.28	1.01
1/23/2009	1.18	0.85	0.96	1.04	1.35	1.00
1/30/2009	1.16	0.88	0.91	0.99	1.19	0.98
2/6/2009	1.07	1.28	1.30	1.67	3.30	2.34
2/13/2009	1.08	1.03	0.97	1.07	2.04	1.23
2/20/2009	1.08	1.10	0.96	1.34	2.38	1.29
2/26/2009	0.80	0.97	0.86	1.20	1.44	1.12
3/6/2009	0.73	0.96	0.93	0.97	1.20	1.01
3/13/2009	0.81	1.26	1.05	1.16	1.68	1.16
3/20/2009	0.83	1.00	2.34	1.05	1.32	1.10
3/27/2009	0.50	0.56	0.55	0.80	0.95	0.76
4/2/2009	0.55	0.55	0.94	0.53	0.82	0.60
4/7/2009	0.68	0.71	0.87	0.77	0.91	0.78
4/19/2009	0.77	0.68	0.93	0.81	0.98	0.77
4/24/2009	0.43	0.48	0.39	0.60	0.73	0.74
5/1/2009	0.43	0.46	0.43	0.81	0.87	1.02
5/8/2009	0.40	0.54	0.43	0.58	1.03	0.55
5/15/2009	0.41	0.38	0.34	0.60	0.88	0.51
5/22/2009	0.43	0.44	0.40	0.53	0.70	0.65
5/29/2009	0.41	0.46	0.38	0.58	0.81	0.55
6/5/2009	0.38	0.58	0.62	0.34	0.60	0.48
6/12/2009	0.28	0.40	0.31	0.60	0.44	0.44

See notes on page 3.

Table 4. Summary of Dissolved Oxygen Measurements, August 2006 through December 2011, Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Date	Dissolved Oxygen (ppm)					
	MW-33 (Area 1)	MW-36R (Area 2)	TW-02RRR (Area 2)	MW-27 (Area 3)	MW-28 (Area 3)	MW-8SR (Area 3)
6/26/2009	0.34	0.43	0.34	0.52	0.45	0.42
6/29/2009	0.33	0.42	0.57	0.50	0.83	0.60
7/7/2009	0.31	0.44	0.48	0.55	0.81	0.64
7/16/2009	0.30	0.37	0.27	0.37	0.73	0.43
7/24/2009	0.30	0.30	0.22	0.44	0.53	0.37
7/29/2009	0.33	0.36	0.28	0.41	0.55	0.41
8/7/2009	0.30	0.46	0.35	0.36	0.92	0.39
8/12/2009	0.31	0.41	0.28	0.42	0.41	0.34
8/20/2009	0.33	0.32	0.27	0.44	0.53	0.40
8/28/2009	0.25	0.31	0.34	0.52	0.77	0.47
9/3/2009	0.31	0.37	0.35	0.48	0.68	0.44
9/25/2009	0.45	0.58	0.35	0.52	0.73	0.50
10/2/2009	0.44	0.55	0.33	0.54	0.78	0.51
10/9/2009	0.41	0.53	0.32	0.58	0.95	0.77
10/15/2009	0.48	0.55	0.37	0.61	0.71	0.58
10/23/2009	0.43	0.51	0.54	0.80	0.74	0.61
11/17/2009	0.48	0.55	0.56	0.78	0.84	0.68
12/4/2009	0.42	0.53	0.48	0.76	0.88	0.71
1/20/2010	0.62	0.59	0.55	0.81	0.90	0.67
2/26/2010	0.57	0.51	0.47	0.77	0.91	0.74
3/12/2010	0.85	0.90	0.74	1.11	0.91	1.02
4/9/2010	0.78	0.94	0.68	0.98	0.87	0.86
5/7/2010	0.84	0.91	0.73	0.84	1.97	0.96
6/22/2010	0.52	0.47	0.60	0.47	0.82	0.58
7/8/2010	0.78	0.56	0.71	0.87	1.67	0.55
8/26/2010	0.64	0.40	0.35	0.67	1.70	0.98
9/23/2010	0.33	0.46	0.30	0.50	0.98	0.40
10/19/2010	0.30	0.37	0.46	0.48	0.85	0.48
11/23/2010	0.38	N/R	0.58	0.61	0.88	0.56
12/20/2010	0.41	N/R	0.48	0.54	0.81	0.40
1/12/2011	0.36	N/R	0.44	0.68	1.13	0.61
2/172011	0.58	N/R	0.36	0.55	1.30	0.75
3/2/2011	0.61	N/R	0.42	0.68	1.28	0.71
4/29/2011	0.34	N/R	0.35	0.76	1.31	0.77
5/20/2011	0.50	0.51	0.47	0.94	1.26	0.76
6/24/2011	0.40	0.35	0.25	0.15	0.36	0.12
7/13/2011	0.36	0.20	0.21	0.56	0.57	0.25
8/2/2011	0.37	0.22	0.26	0.36	0.47	0.25
9/19/2011	0.38	0.33	0.34	0.40	0.42	0.51
10/14/2011	0.36	0.36	0.55	0.42	0.52	0.66
11/7/2011	0.49	1.57	0.42	0.47	0.61	0.62
12/14/2011	0.42	0.43	0.47	0.79	0.85	0.52

Notes:

1. No readings were taken at MW-36 between 8/21/2006 and 6/1/2007 and 11/23/2010 and 4/29/2011.
2. DO readings were taken at TW-02RR and MW-8SR beginning 11/7/2008, just after the installation of the oxygen infusion system in Areas 2 and 3.
3. TW-02RR was replaced by TW-02RRR and MW-36 was replaced by MW-36R in 11/2010.

Abbreviations:

DO = dissolved oxygen.

N/R = no reading was taken.

ppm = parts per million.

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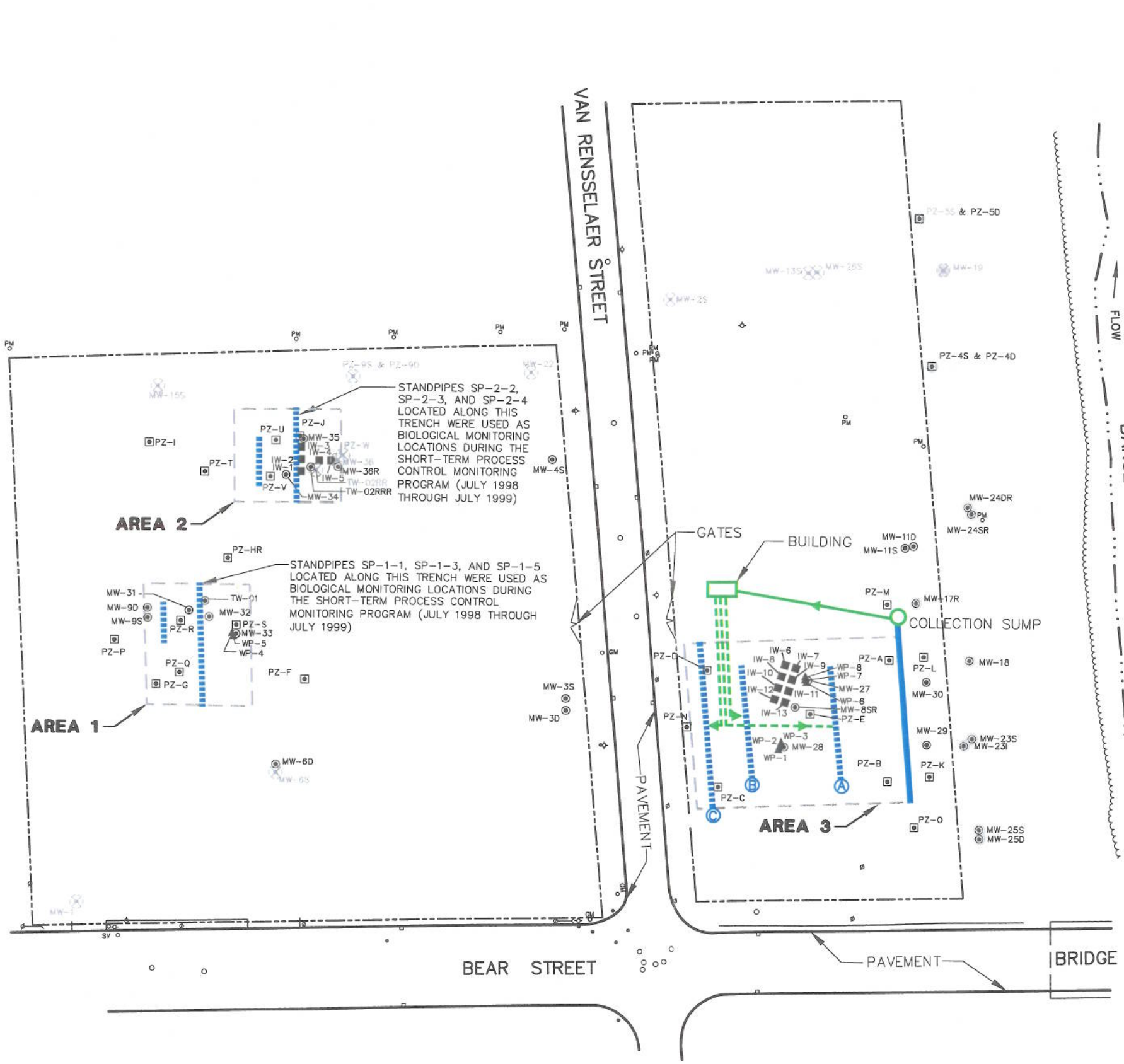
Figures



LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- GROUNDWATER MONITORING WELL
- BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- PIEZOMETER
- PUMPING WELL
- REMOVED/DECOMMISSIONED WELL/PIEZOMETER
- WELL POINT
- OXYGEN INFUSION WELL
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING
- TREE LINE
- EDGE OF BARGE CANAL

NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. LOCATIONS ARE APPROXIMATE.

0 100' 200'

GRAPHIC SCALE

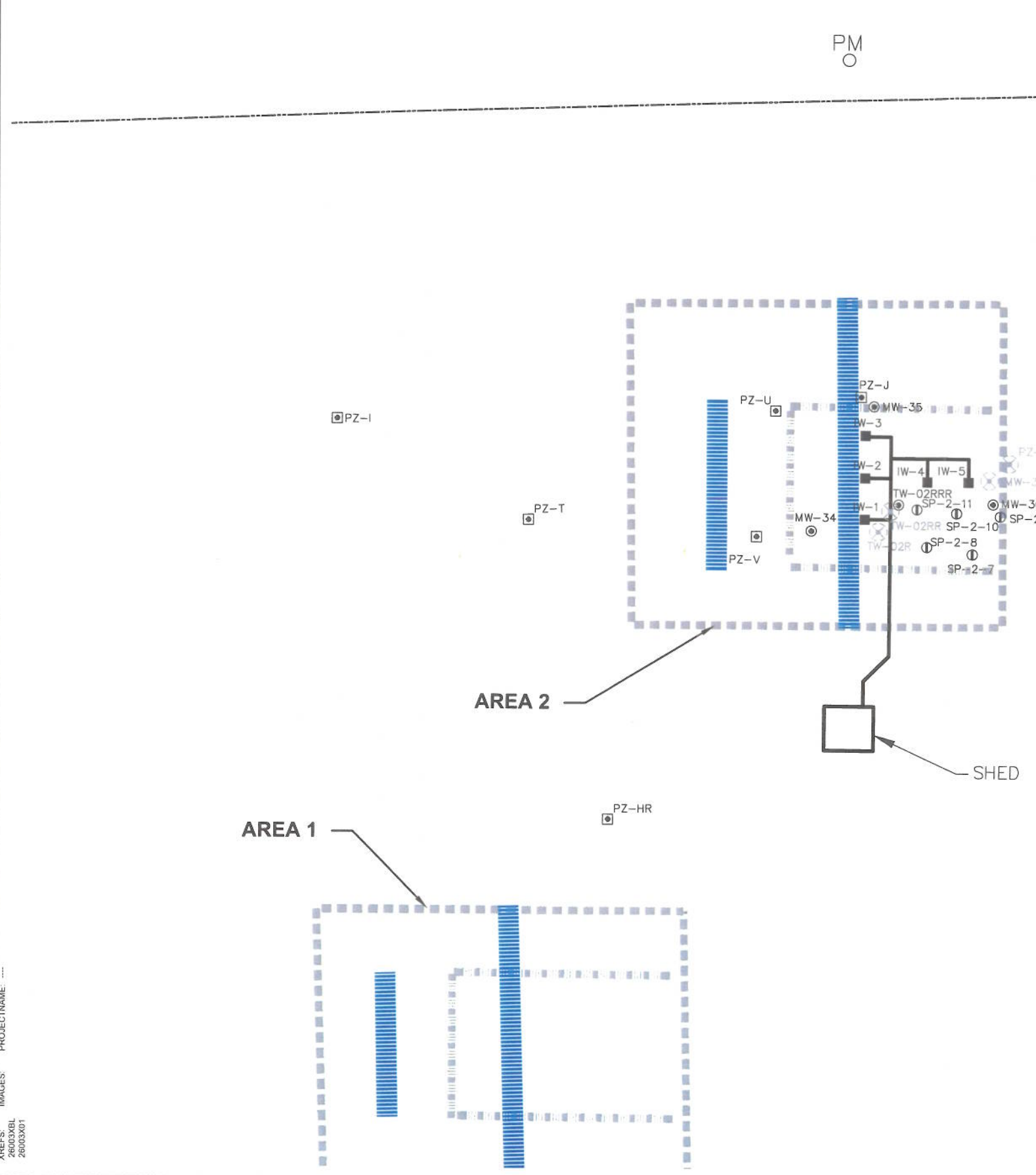
McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
PERIODIC REVIEW REPORT

SITE PLAN

ARCADIS

FIGURE 1

CITY: SYRACUS, NY DIV/GROUP: ENV/141 DB: RCA LAFGMS K. SARTORI LD: PIC: PM: B. BYRNES TM: LYR: ON=*;OFF=*REF; |AREA-HIGHER; |TREE
G:\ENVCAD\SYRACUSE\ACTIB0026003\000\001900\DWG\BIANNUAL\MARCH-2009\26003B02.DWG LAYOUT: 1 SAVED: 8/4/2011 2:41 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/4/2011 2:51 PM BY: JONES, WENDY
XREFS: IMAGES: PROJECTNAME: ---
26003X01
26003XBL



LEGEND:

- PROPERTY LINE
- PM — PETROLUEM PIPE LINE MARKER
- MW-19 — GROUNDWATER MONITORING WELL
- PZ-A — PIEZOMETER
- TW-02R — REMOVED/DECOMMISSIONED GROUNDWATER MONITORING WELL/PIEZOMETER
- IW-3 — OXYGEN INFUSION WELL
- SP-2-7 — STANDPIPE LOCATION
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER INFILTRATION TRENCH
- PVC CONDUIT CARRYING POLYURETHANE TUBES
- AREA OF HISTORICALLY RELATIVELY HIGHER CONCENTRATION OF COCs

NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. LOCATIONS ARE APPROXIMATE.

0 30' 60'

GRAPHIC SCALE

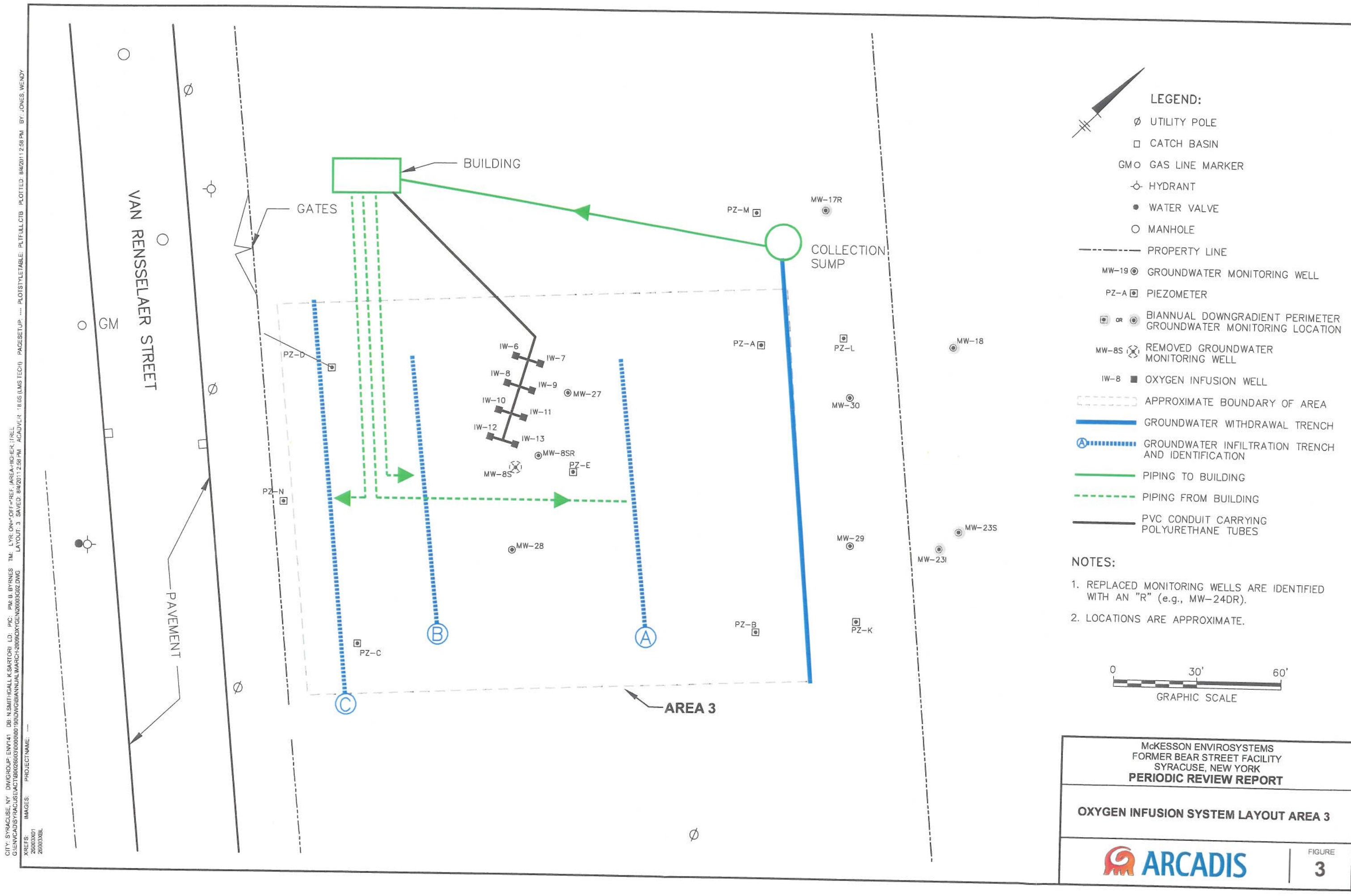
McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
PERIODIC REVIEW REPORT

OXYGEN INFUSION SYSTEM LAYOUT AREA 2

ARCADIS

FIGURE 2

CITY:SYRACUSE, NY DIV/GROUP:ENV/IM-DV DB: N. SMITH/GALL R. BASSETT, P. LISTER PM/TM: D. PENNIMAN TR: C. SOBOL LYR: ON=*;OFF=*REF; (FRZ)
G:\ENV\CAD\SYRACUSE\ACTIVE\26003000\0019\DWG\PRR26003G01.DWG LAYOUT: 2 SAVED: 2/8/2012 3:37 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 2/8/2012 3:37 PM BY: LISTER, PAUL
XREFS: IMAGES: PROJECTNAME: ----
26003XBL
26003X01



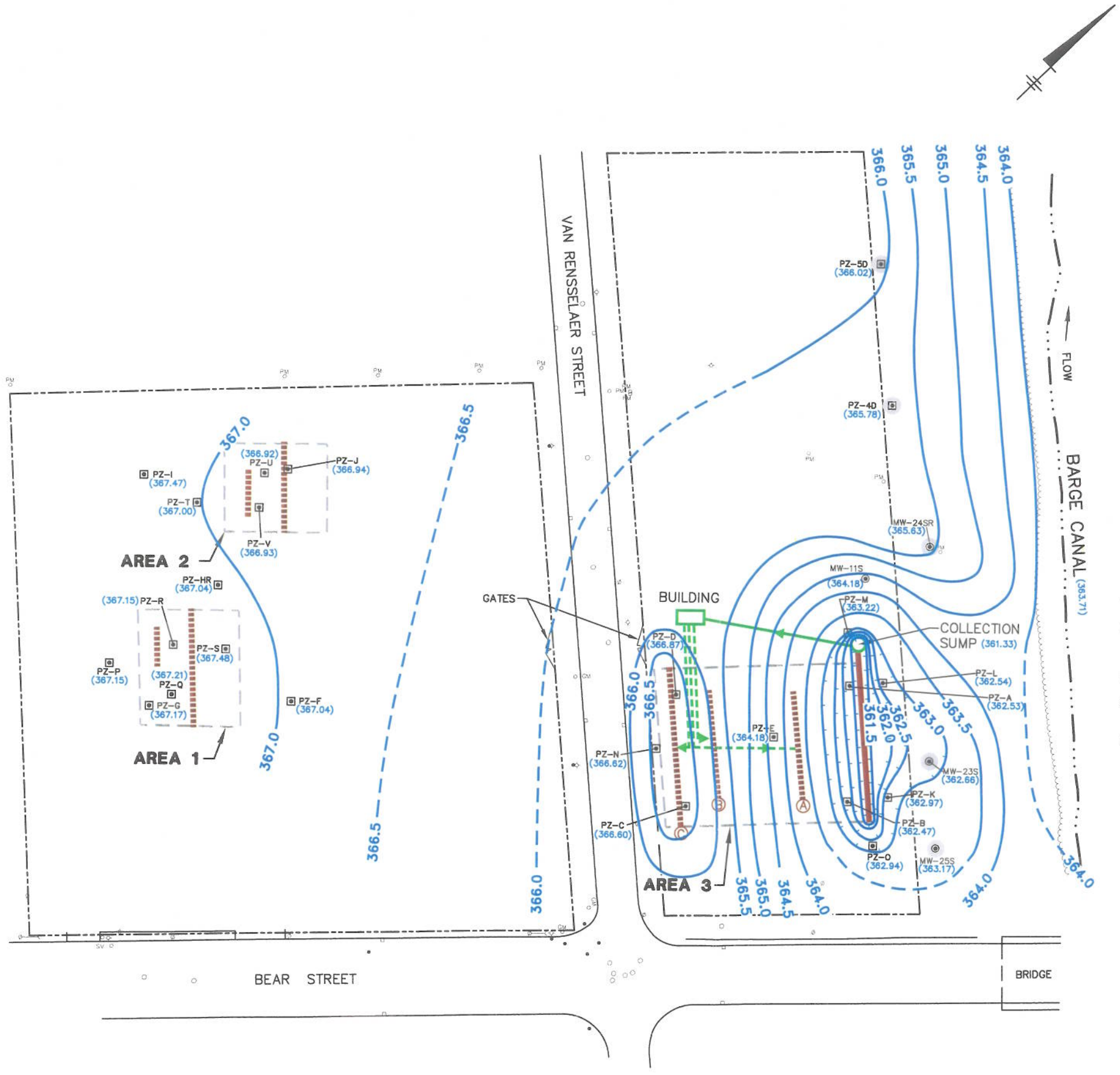
CITY: SYRACUSE, NY DIV/GROUP: ENV/141 DB: N.SMITH/GALL K.SARTORI LD: PIC: PM: B. BYRNES TM: LYR: ON=*;OFF=*REF,|AREA+HIGHER,|FREE,|
G:\ENV\CADD\SYRACUSE\ACTIVE\26003\0100\0000\160\190\DWG\BIANNUAL\MARCH-2009\OXYGEN\26003G02.DWG LAYOUT: 3 SAVED: 8/4/2011 2:58 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/4/2011 2:58 PM BY: JONES, WENDY
XREFS:
26003X01
26003XBL
IMAGES:
PROJECTNAME: ----

McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
PERIODIC REVIEW REPORT

OXYGEN INFUSION SYSTEM LAYOUT AREA 3

ARCADIS

FIGURE
3



LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- TREE LINE
- EDGE OF BARGE CANAL
- PROPERTY LINE
- MW-11S — GROUNDWATER MONITORING WELL
- OR — BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- PZ-A — PIEZOMETER
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- A — GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING
- (365.63) — GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (AMSL)
- 366.0 — GROUNDWATER ELEVATION CONTOUR (FEET AMSL) DASHED WHERE INFERRED
- CLOSED DEPRESSION

NOTES:

1. ONLY THE HYDRAULIC MONITORING LOCATIONS USED TO DRAW THIS MAP ARE SHOWN.
2. REPLACED MONITORING WELLS AND PIEZOMETERS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
3. ELEVATIONS REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.
4. THE BARGE CANAL ELEVATION WAS MEASURED FROM A MARKED POINT ON THE BEAR STREET BRIDGE.
5. CONTOUR INTERVAL = 0.5 FOOT.

0 100' 200'

GRAPHIC SCALE

McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
PERIODIC REVIEW REPORT

POTENTIOMETRIC SURFACE OF THE SHALLOW HYDROGEOLOGIC UNIT SAND LAYER- OCTOBER 24, 2011

ARCADIS

FIGURE 4

CITY:SYRACUSE,NY DIV/GROUP:ENV/IM-DIV DB:R.BASSETT; W.JONES,P.LISTER PM/TM:D.PENNIMAN TR:C.SOBOL LYR ON=*;OFF=*REF.(FRZ)
G:\ENVCAD\SYRACUSE\ACT\B0026803\000\D0019\DWGPRR\26003W04.DWG LAYOUT: 4 SAVED: 2/8/2012 3:20 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---
PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 2/8/2012 3:22 PM BY: LISTER, PAUL
XREFS: IMAGES:
26003X01
26003X00

MW-35

Date	3/27/2009	9/15/2009	4/30/2010	10/14/2010	4/5/2011	10/26/2011
Acetone	<10	8.5 J	<10 J	<10	<10	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	0.16 J	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Aniline	<5.0	<5.0	<5.0	<5.0	<5.6	<5.1
N,N-Dimethylaniline	<0.50	<1.0	<1.0	<1.0	<1.1	<1.0
Methanol	<500	1100	<500	<500 J	<500	<500

MW-34

Date	3/27/2009	9/15/2009	4/30/2010	10/14/2010	4/5/2011	10/26/2011
Acetone	14	24	50 J	20	16	350
Benzene	1.4	<1.0	0.82 J	1.0	1.7	1.2
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	0.70 J	0.84 J	0.42 J	0.44 J	0.74 J	0.71 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	1.5 J	1.7 J	1.4 J	1.3 J	2.0 J	0.90 J
Aniline	12	<5.0	<5.0	1.8 J	10	<5.6
N,N-Dimethylaniline	2.0	2.5	2.4	2.9	2.7	2.5
Methanol	<500	1000	<500	<500 J	<500	<500

TW-02RRR

Date	3/27/2009	8/16/2009	9/15/2009	4/30/2010	10/14/2010	4/5/2011	10/27/2011	12/15/2011
Acetone	<10 [<10]	NA	<10 [<10]	9.5 J [12 J]	<10 [<10]	<10 [<10]	<10 [<10]	NA
Benzene	5.0 [4.8]	NA	4.3 [4.2]	4.1 [4.0]	3.3 [3.0]	2.1 [2.0]	1.2 [1.1]	NA
Ethylbenzene	1.5 [1.8]	NA	1.2 [1.3]	1.2 [1.2]	1.0 [0.91 J]	1.2 [1.3]	0.67 J [0.69 J]	NA
Methylene Chloride	<1.0 [<1.0]	NA	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	NA
Toluene	1.0 [1.0 J]	NA	0.79 J [0.81 J]	0.78 J [0.75 J]	0.82 J [0.76 J]	0.74 J [0.75 J]	0.53 J [0.48 J]	NA
Trichloroethene	<1.0 [<1.0]	NA	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	NA
Xylenes (total)	4.2 [4.1]	NA	3.5 [3.6]	4.2 [4.0]	3.8 [3.6]	5.2 [5.3]	1.5 J [1.4 J]	NA
Aniline	2000 [1600]	2800 J	1800 J [1500]	2800 D [3100 D]	760 [810]	1.9 J [2.1 J]	1300 D [1500 D]	1,400
N,N-Dimethylaniline	<10 [<10]	<20 J	<10 [<10]	<20 J [<20 J]	<5.0 [2.2 J]	3.4 [3.3]	5.5 [6.2]	NA
Methanol	<500 [<500]	NA	1000 [1200]	<500 [<500]	<500 J [<500 J]	<500 [<500]	<500 [<500]	NA

MW-36R

Date	3/27/2009	8/16/2009	9/15/2009	4/30/2010	10/14/2010	4/5/2011	10/26/2011	12/15/2011
Acetone	28	NA	21	<10 J	12	<10	<10	NA
Benzene	2.4	NA	3.1	3.3	3.8	4.3	1.8	NA
Ethylbenzene	<1.0	NA	<1.0	0.26 J	0.28 J	<1.0	<1.0	NA
Methylene Chloride	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA
Toluene	0.80 J	NA	0.96 J	1.1	1.2	0.95 J	0.86 J	NA
Trichloroethene	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA
Xylenes (total)	2.5 J	NA	3.2	5.4	4.8	4.4	1.4 J	NA
Aniline	150	480	390	77	820	310	92	120
N,N-Dimethylaniline	<5.0	NA	3.1	2.8	<5.0	4.0	3.8	NA
Methanol	<500	NA	<500	<500	<500 J	NA	NA	NA

TW-01

Date	3/26/2009	9/15/2009	4/28/2010	10/12/2010	4/4/2011	10/25/2011
Acetone	<10	2.9 J	<10	<10	<10	<10
Benzene	1.9	<1.0	0.32 J	<1.0	0.21 J	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	0.11 J	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	0.60 J	<3.0	<3.0	<3.0	<3.0	<3.0 J
Aniline	<5.0	<5.0	<5.0	<5.3	<5.3	<5.6
N,N-Dimethylaniline	<0.50	1.1	1.0	1.3	<1.1	1.6
Methanol	22300	970	<500	<500 J	<500	<500

MW-4S

Date	10/15/2010
Acetone	<10 [<10]
Benzene	<1.0 [<1.0]
Ethylbenzene	<1.0 [<1.0]
Methylene Chloride	<1.0 [<1.0]
Toluene	<1.0 [<1.0]
Trichloroethene	<1.0 [<1.0]
Xylenes (total)	<3.0 [<3.0]
Aniline	<5.0 [<5.0]
N,N-Dimethylaniline	<1.0 [<1.0]
Methanol	<500 J [<500 J]

MW-32

Date	3/26/2009	9/15/2009	4/28/2010	10/12/2010	4/4/2011	10/25/2011
Acetone	<10	<10	<10	<10	<10	<10
Benzene	0.50 J	<1.0	0.23 J	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	0.19 J
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0
Aniline	<5.0	<5.0	<5.0	<5.2	<3.0	<3.0 J
N,N-Dimethylaniline	<0.50	1.1	0.89 J	0.87 J	<5.3	<5.0
Methanol	<500	1200	<500	<500 J	<1.1	1.5
					<500	<500

MW-38

Date	3/26/2009	9/16/2009	4/28/2010	10/12/2010	4/6/2011	10/27/2011
Acetone	<10	<10	<10	<10	<10	<10
Benzene	<1.0	0.17 J	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	0.35 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Aniline	<5.0	<5.0	<5.0	<5.2	<5.3 J	<5.0
N,N-Dimethylaniline	<0.50	<1.0	<1.0	<1.0	<1.1 J	<1.0
Methanol	<500	<500	<500	NA	NA	NA

MW-33

Date	3/26/2009	9/16/2009	4/28/2010	10/12/2010	4/5/2011	10/26/2011
Acetone	<10	<10	<10	<10	<10	<10
Benzene	3.2	2.6	1.6	1.7	0.79 J	0.58 J
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	0.20 J	<1.0	<1.0	<1.0	0.12 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Aniline	<5.0	<5.0	<5.0	<5.1	<5.3	<5.3
N,N-Dimethylaniline	2.4	<1.0	2.0	2.7	1.9	1.9
Methanol	<500	<500	<500	NA	NA	NA

MW-6S

Date	3/28/2009	9/15/2009	4/28/2010	10/13/2010	4/5/2011	10/25/2011
Acetone	<200	<10	<10	<10	<10	<10
Benzene	24	1.7	0.86 J	1.3	0.91 J	1.2
Ethylbenzene	550	20	26	11	29	4.2
Methylene Chloride	<20	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	50	2.2	2.1	1.9	2.8	1.8
Trichloroethene	<20	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	1300	70	89	45	89	41 J
Aniline	<5.0	<5.0	<5.0	<5.1	<5.3	<5.0
N,N-Dimethylaniline	4.2	4.1	6.5	7.5	5.4	7.6
Methanol	<500	730	<500	<500 J	<500	<500

MW-31

Date	3/26/2009	9/15/2009	4/28/2010	10/13/2010	4/5/2011	10/25/2011
Acetone	9.4 J	<10	<10	<10	<10	<10
Benzene	8.3	10	4.8	6.9	8.3	5.7
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	0.80 J	0.49 J	0.40 J	0.50 J	0.77 J	0.62 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	0.80 J	2.0 J	1.3 J	1.5 J	2.5 J	1.5 J
Aniline	<5.0	<5.0	<5.0	<5.3	<5.3	<5.0
N,N-Dimethylaniline	2.3	2.5	2.3	3.6	2.3	3.5
Methanol	<500	730	<500	<500 J	<500	<500

NYSDEC GQS	
Acetone	50
Benzene	1
Ethylbenzene	5
Methylene Chloride	5
Toluene	5
Trichloroethene	5
Xylenes (total)	5
Aniline	5
N,N-dimethylaniline	1
Methanol	NS

MW-4M

Date	Sep-06	Nov-06	Jun-07
Acetone	NA	130 J	33
Benzene	NA	3.8	4.8
Ethylbenzene	NA	<4.0	0.80 J
Methylene Chloride	NA	<3.0	<3.0
Toluene	NA	1.2 J	1.4 J
Trichloroethene	NA	<1.0	<1.0
Xylenes (total)	NA	1.1 J	5
Aniline	3.5	420	1300
N,N-Dimethylaniline	1.2	1.7 J	<10
Methanol	NA	<500	<500

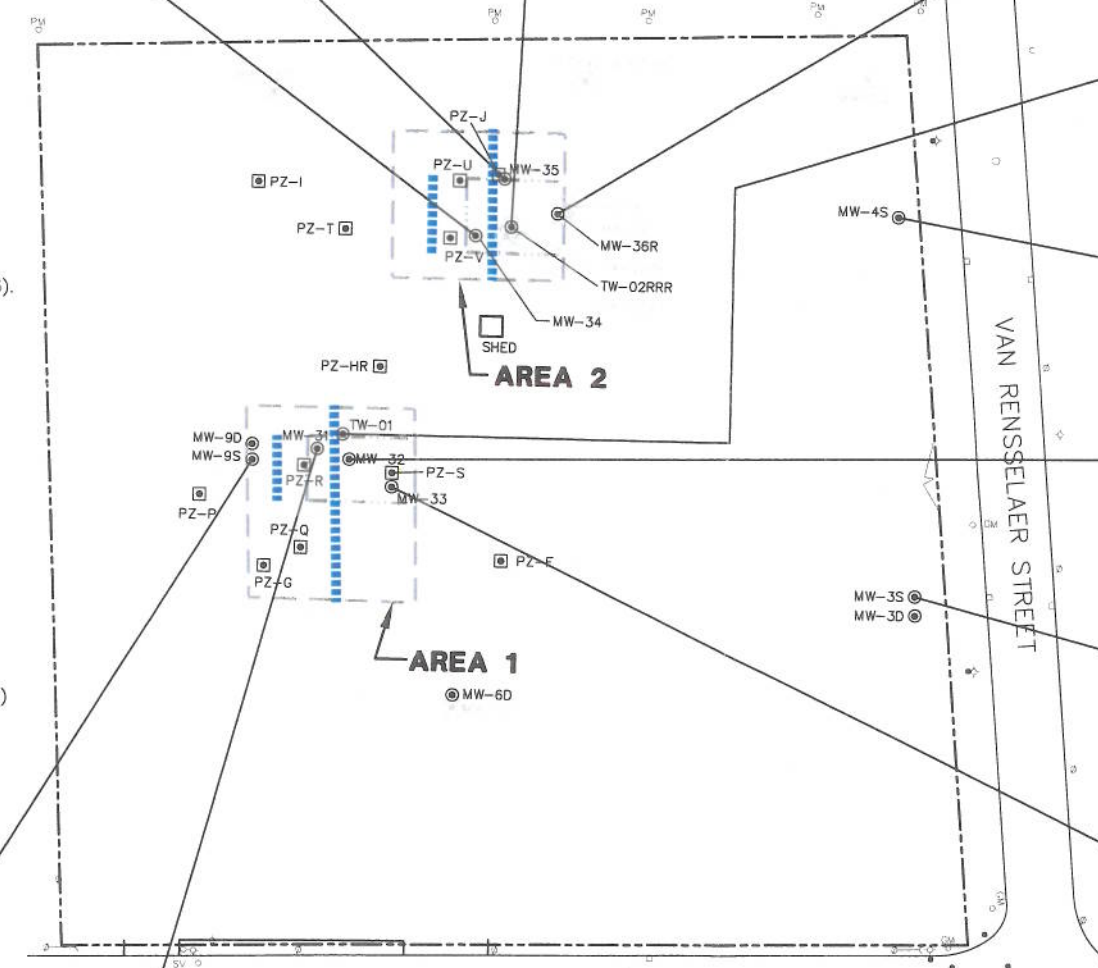
SAMPLE IDENTIFICATION

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

CONCENTRATION (ppb)

NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. TRENCH LOCATIONS ARE APPROXIMATE.
3. MONITORING LOCATIONS ARE APPROXIMATE.
4. FIGURE ONLY SHOWS COC CONCENTRATIONS AT MONITORING LOCATIONS WITHIN THE IMPACTED AREAS AND THE CHEMICAL PROCESS CONTROL MONITORING LOCATIONS.
5. ONLY COC CONCENTRATIONS DETECTED OR THAT HAVE BEEN DETECTED ARE PRESENTED ON THIS FIGURE (SEE ATTACHMENT A FIGURES 1 AND 3).
6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. NA = COMPOUND WAS NOT ANALYZED FOR IN THE SAMPLE.
8. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
9. R = THE SAMPLE RESULT WAS REJECTED.
10. THE 9/06, 8/07 AND 6/09 SAMPLING EVENTS WERE INTERIM SAMPLING EVENTS, ANALYZING FOR ANILINE & N,N-DIMETHYLANILINE ONLY.
11. DATA VALUES FOR ANILINE AND N,N-DIMETHYLANILINE AT TW-02RRR PRESENTED WITH THE 11/07 DATA ARE THE RESULTS OF SAMPLES COLLECTED AT TW-02RR IN 12/07. THE ORIGINAL SAMPLE COLLECTED IN 11/07 WAS DAMAGED AND HAD TO BE RESAMPLED.
12. SAMPLE DATA ARE COMPARED TO NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION GROUNDWATER QUALITY STANDARDS (GQS) (TECHNICAL AND OPERATIONAL GUIDANCE SERIES 1.1.1).
13. NS – STANDARD NOT AVAILABLE.



LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- TW-02RRR GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- REMOVED/DECOMMISSIONED GROUNDWATER MONITORING WELL/PIEZOMETER
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER INFILTRATION TRENCH
- AREA OF HISTORICALLY RELATIVELY HIGHER CONCENTRATION OF COCs

0 100' 200'

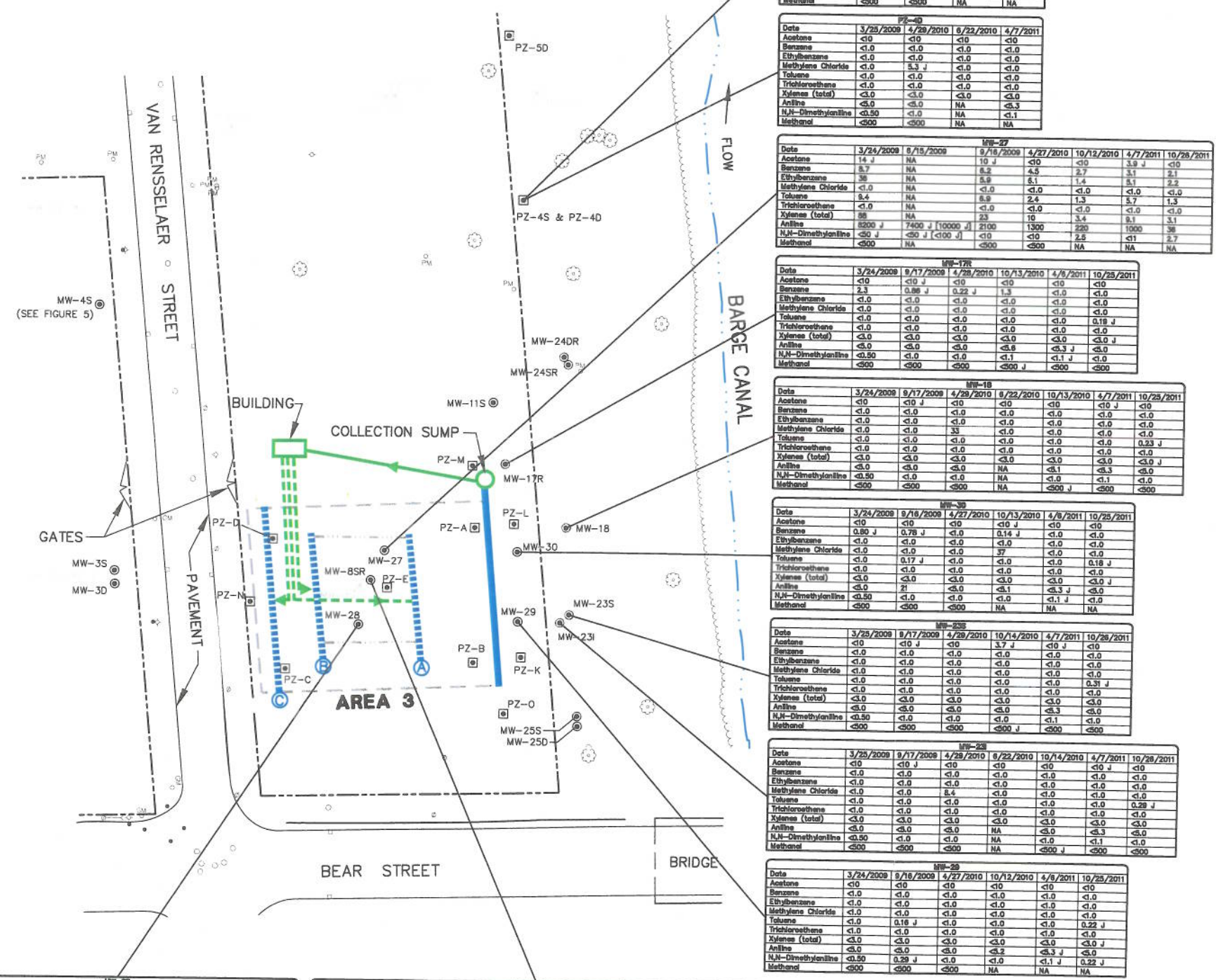
GRAPHIC SCALE

McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
PERIODIC REVIEW REPORT

GROUNDWATER MONITORING DATA SUMMARY FOR MARCH 2009 - DECEMBER 2011 AREAS 1 & 2 (AEROBIC TREATMENT)

ARCADIS

FIGURE 5



PZ-4S

Date	3/25/2009	4/29/2010	8/22/2010	4/7/2011
Acetone	<10	<10	<10 [<10]	<10 J
Benzene	<1.0	<1.0	<1.0 [<1.0]	<1.0
Ethylbenzene	<1.0	<1.0	<1.0 [<1.0]	<1.0
Methylene Chloride	<1.0	17	<1.0 [<1.0]	<1.0
Toluene	<1.0	<1.0	<1.0 [<1.0]	<1.0
Trichloroethene	<1.0	<1.0	<1.0 [<1.0]	<1.0
Xylenes (total)	<3.0	<3.0	<3.0 [<3.0]	<3.0
Aniline	<5.0	<5.0	NA	<5.3
N,N-Dimethylaniline	<0.50	<1.0	NA	<1.1
Methanol	<500	<500	NA	NA

PZ-4D

Date	3/25/2009	4/29/2010	8/22/2010	4/7/2011
Acetone	<10	<10	<10	<10
Benzene	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	5.3 J	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0
Aniline	<5.0	<5.0	NA	<5.3
N,N-Dimethylaniline	<0.50	<1.0	NA	<1.1
Methanol	<500	<500	NA	NA

MW-27

Date	3/24/2009	6/15/2009	9/16/2009	4/27/2010	10/12/2010	4/7/2011	10/26/2011
Acetone	14 J	NA	10 J	<10	<10	3.9 J	<10
Benzene	8.7	NA	5.2	4.9	2.7	3.1	2.1
Ethylbenzene	38	NA	5.9	5.1	1.4	5.1	2.2
Methylene Chloride	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	5.4	NA	6.9	2.4	1.3	5.7	1.3
Trichloroethene	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	88	NA	23	10	3.4	8.1	3.1
Aniline	8200 J	7400 J [10000 J]	2100	1300	220	1000	36
N,N-Dimethylaniline	<50 J	<50 J [<100 J]	<10	<10	2.5	<11	2.7
Methanol	<500	NA	<500	<500	NA	NA	NA

MW-17R

Date	3/24/2009	9/17/2009	4/28/2010	10/13/2010	4/6/2011	10/25/2011
Acetone	<10	<10 J	<10	<10	<10	<10
Benzene	2.3	0.86 J	0.22 J	1.3	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	0.19 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0 J
Aniline	<5.0	<5.0	<5.0	<5.6	<5.3 J	<5.0
N,N-Dimethylaniline	<0.50	<1.0	<1.0	<1.1	<1.1 J	<1.0
Methanol	<500	<500	<500	<500 J	<500	<500

MW-18

Date	3/24/2009	9/17/2009	4/28/2010	10/13/2010	4/7/2011	10/25/2011
Acetone	<10	<10 J	<10	<10	<10 J	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	33	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	0.33 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0 J
Aniline	<5.0	<5.0	NA	NA	<5.1	<5.3
N,N-Dimethylaniline	<0.50	<1.0	<1.0	NA	<1.0	<1.0
Methanol	<500	<500	<500	NA	<500 J	<500

MW-30

Date	3/24/2009	9/16/2009	4/27/2010	10/13/2010	4/6/2011	10/25/2011
Acetone	<10	<10	<10	<10 J	<10	<10
Benzene	0.80 J	0.78 J	<1.0	0.14 J	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	37	<1.0	<1.0
Toluene	<1.0	0.17 J	<1.0	<1.0	<1.0	0.18 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0 J
Aniline	<5.0	21	<5.0	<5.1	<5.3 J	<5.0
N,N-Dimethylaniline	<0.50	<1.0	<1.0	<1.0	<1.1 J	<1.0
Methanol	<500	<500	<500	NA	NA	NA

MW-23S

Date	3/25/2009	9/17/2009	4/29/2010	10/14/2010	4/7/2011	10/26/2011
Acetone	<10	<10 J	<10	3.7 J	<10 J	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	0.31 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Aniline	<5.0	<5.0	<5.0	<5.0	<5.3	<5.0
N,N-Dimethylaniline	<0.50	<1.0	<1.0	<1.0	<1.1	<1.0
Methanol	<500	<500	<500	<500 J	<500	<500

MW-23I

Date	3/25/2009	9/17/2009	4/28/2010	8/22/2010	10/14/2010	4/7/2011	10/26/2011
Acetone	<10	<10 J	<10	<10	<10	<10 J	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	8.4	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.28 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Aniline	<5.0	<5.0	<5.0	NA	<5.0	<5.3	<5.0
N,N-Dimethylaniline	<0.50	<1.0	<1.0	NA	<1.0	<1.1	<1.0
Methanol	<500	<500	<500	NA	<500 J	<500	<500

MW-25D

Date	3/24/2009	9/16/2009	4/27/2010	10/12/2010	4/6/2011	10/25/2011
Acetone	<10	<10	<10	<10	<10	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	0.16 J	<1.0	<1.0	<1.0	0.22 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0 J
Aniline	<5.0	<5.0	<5.0	<5.3 J	<5.3 J	<5.0
N,N-Dimethylaniline	<0.50	0.29 J	<1.0	<1.0	<1.1 J	0.22 J
Methanol	<500	<500	<500	NA	NA	NA

MW-28

Date	3/24/2009	9/16/2009	4/27/2010	10/12/2010	4/7/2011	10/26/2011
Acetone	<10	<10	<10	<10	4.3 J	<10
Benzene	3.5	3.1	2.8	1.8	2.3	1.8
Ethylbenzene	0.80 J	0.32 J	0.60 J	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0 B	<1.0
Toluene	0.30 J	0.25 J	0.23 J	<1.0	0.11 J	0.38 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	1.1 J	0.48 J	0.46 J	<3.0	<3.0	<3.0
Aniline	18	8.7	<5.0	2.4 J	3.9 J	<5.0
N,N-Dimethylaniline	<0.50	<1.0	0.48 J	0.80 J	0.75 J	<1.0
Methanol	881	<500	<500	<500 J	<500	<500

MW-8SR

Date	3/24/2009	6/15/2009	9/16/2009	4/27/2010	10/12/2010	4/7/2011	10/28/2011
Acetone	6.8 J [5.8 J]	NA	<10 [8.3 J]	<10 [<10]	<10	5.9 J [4.3 J]	<10 [<10]
Benzene	6.8 J [6.8 J]	NA	8.5 J [7.9]	4.2 [3.3]	2.7	3.2 [3.2]	1.8 [2.0]
Ethylbenzene	86 [63]	NA	44 J [36]	23 J [18]	18	10 [8.8]	2.0 [2.1]
Methylene Chloride	<1.0 [<1.0]	NA	<1.0 [<1.0]	<1.0 [<1.0]	<1.0	<1.0 [<1.0]	<1.0 [<1.0]
Toluene	10 [10]	NA	6.8 J [6.5]	4.6 [3.7]	2	2.8 [2.6]	1.3 [1.3]
Trichloroethene	<1.0 [<1.0]	NA	<1.0 [<1.0]	<1.0 [<1.0]	<1.0	<1.0 [<1.0]	<1.0 [<1.0]
Xylenes (total)	140 [140]	NA	81 J [71]	41 [33]	31	32 [31]	14 [15]
Aniline	2200 [1800]	7000 J	4000 [3400]	370 J [720 J]	220	57 J [64]	<5.0 [<5.0]
N,N-Dimethylaniline	<12 [<12]	<50 J	<20 [<20]	1.0 J [<5.0]	1.8	1.5 [1.6]	2.8 [<1.0]
Methanol	<500 [<500]	NA	<500 [<500]	<500 [<500]	NA	NA	NA

PZ-5S

Date	Jun-08	Jun-07	Mar-08	Mar-09	Apr-10	Jun-10	Apr-11
Acetone	<5.0	<5.0	<5.0	<10	<10	<10	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<1.0	8.3 J	<1.0	<1.0
Toluene	0.50 J	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<3.0	<3.0	<3.0	<3.0
Aniline	<1.0	<5.5	<5.0	<4.0	<4.0	NA	<5.3
N,N-Dimethylaniline	<0.50	<1.1	<0.50	<0.50	<1.0	NA	<1.1
Methanol	<1000	<500	NA	NA	<500	NA	NA

NYSDEC GQS	
Acetone	50
Benzene	1
Ethylbenzene	5
Methylene Chloride	5
Toluene	5
Trichloroethene	5
Xylenes (total)	5
Aniline	5
N,N-Dimethylaniline	1
Methanol	NS

SAMPLE IDENTIFICATION

CONCENTRATION (ppb)

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

0 100' 200'

GRAPHIC SCALE

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PMO PETROLEUM PIPE LINE MARKER
- GMO GAS LINE MARKER
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY
- LINE EDGE OF WATER
- EDGE OF TREELINE
- TREE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- OR BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- MW-26S PUMPING WELL
- REMOVED/DECOMMISSIONED GROUNDWATER MONITORING WELL/PIEZOMETER
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING
- AREA OF HISTORICALLY RELATIVELY HIGHER CONCENTRATION OF COCs

NOTES:

1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (e.g., MW-24DR).
2. TRENCH LOCATIONS ARE APPROXIMATE.
3. MONITORING LOCATIONS ARE APPROXIMATE.
4. FIGURE ONLY SHOWS COC CONCENTRATIONS AT MONITORING LOCATIONS WITHIN THE IMPACTED AREAS AND THE CHEMICAL PROCESS CONTROL MONITORING LOCATIONS.
5. ONLY COC CONCENTRATIONS DETECTED OR HAVE BEEN DETECTED ARE PRESENTED ON THIS FIGURE (SEE ATTACHMENT A FIGURES 2 AND 4).
6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. NA = COMPOUND WAS NOT ANALYZED FOR IN THE SAMPLE.
8. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
9. R = THE SAMPLE RESULT WAS REJECTED.
10. B = COMPOUND WAS FOUND IN ASSOCIATED METHOD BLANK.
11. THE 9/06, 8/07 AND 6/09 SAMPLING EVENTS WERE INTERIM SAMPLING EVENTS, ANALYZING FOR ANILINE & N,N-DIMETHYLANILINE ONLY. THE 6/10 SAMPLING EVENT WAS AN INTERIM SAMPLING EVENT ANALYZING FOR VOLATILE ORGANIC COMPOUNDS ONLY.
12. SAMPLE DATA ARE COMPARED TO NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) GROUNDWATER QUALITY STANDARDS (GQS) (TECHNICAL AND OPERATIONAL GUIDANCE SERIES 1.1.1).
13. NS – STANDARD NOT AVAILABLE.

McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
PERIODIC REVIEW REPORT

GROUNDWATER MONITORING DATA SUMMARY FOR MARCH 2009 - OCTOBER 2011 AREA 3 (AEROBIC TREATMENT)

ARCADIS

FIGURE 6

CITY:SYRACUSE, NY DIV/GROUP:ENV/IM-DV DB:N.SMITHGALL, R.BASSETT, P.LISTER PM/TM:D.PENNIMAN TR:C.SOBOL LYR:ON=* OFF=REF,(FRZ) G:\ENVCAD\SYRACUSE\ACT\B0026030000\0190\DWG\PRR26003C02.DWG LAYOUT: 6 SAVED: 2/8/2012 4:10 PM ACADVER: 18.1S (LMS TECH) PAGESETUP ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 2/8/2012 4:11 PM BY: LISTER, PAUL
XREFS: 26003X01 26003X00
IMAGES:

ARCADIS

Attachment A

Table 1. Summary of Historical Groundwater Monitoring Data

Table 2. Summary of Historical Groundwater Level Measurements

Figures 1 – 7. Groundwater Monitoring Data Summaries

Table 1. Summary of Historical Groundwater Level Measurements, June 1998 through June 2006, 2011 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Location	Reference Elevation (feet AMSL)	6/10/98 Static	6/22/98	7/6/98	7/20/98 Week 1	7/27/98 Week 2	8/5/98 Week 3	8/10/98 (morning) Week 4	8/10/98 (afternoon) Week 4	8/11/98 (morning) Week 4	8/11/98 (afternoon) Week 4	8/12/98 (morning) Week 4	8/12/98 (afternoon) Week 4	10/16/98 Week 13	11/17/98 Week 18
Canal	393.39*	362.91	363.37	363.72	363.08	363.08	362.94		362.78	362.94			362.84	363.27	
Collection Sump	372.81	364.33	363.08	363.68	362.50	361.31	361.83	361.89	362.14	361.00	361.71	361.95	362.31	362.01	361.48
MW-3S	376.54	365.93	366.26	367.82	366.20			365.29							365.25
MW-3D	375.56	365.63	365.87	366.16			364.97	364.85						365.08	365.00
MW-6D	377.07	365.75	366.01	366.29										365.25	365.15
MW-8D	374.68	365.51	365.74	366.05			364.80		364.67	364.79	364.88	364.87	364.87	364.93	364.83
MW-9D	376.76**	365.78					365.14	365.10						365.25	365.16
MW-11D	373.68	365.46	365.67	365.29			364.62	364.49	364.50	364.62		364.69	364.67	364.77	364.68
MW-11S	373.50	364.88	364.62	365.11	364.12	363.70	363.58	363.52	363.58	363.73		363.69	363.74	363.74	363.69
MW-18	372.57	362.64													361.90
MW-19	376.00	362.42													361.78
MW-23I	372.77	365.04	365.34	365.72			364.34		364.45	364.16			364.43	364.43	364.34
MW-23S	372.61	363.99	363.43	364.04	362.92	362.50	362.41		362.40	362.66		362.54	362.67	362.68	362.56
MW-24DR	375.14	365.41													364.63
MW-24SR	375.55	365.15	365.32	365.66	364.91	364.45	364.27		364.20				364.36	364.47	364.37
MW-25D	373.67	365.43													364.74
MW-25S	373.39	363.91	363.64	364.14	363.21	362.95	362.75		362.75			362.89	362.96	363.01	362.89
PZ-4D	376.11	365.46	365.73	366.01	365.21	364.83	364.63		364.54	364.67	364.75	364.74	364.70	364.80	364.69
PZ-5D	375.58	365.66	365.91	366.18	365.36	365.07	364.84		364.76	364.88	364.94	364.93	364.91	364.99	364.89
PZ-8D	375.83	365.90	366.11	366.35			365.25	365.13	365.83					365.35	365.27
PZ-9D	377.29	365.73					365.47	365.28						365.12	365.03
PZ-A	373.94	364.49	363.69	364.28	363.13	362.58	362.56	362.62	362.76	363.39	362.82	362.64	363.02	362.75	362.56
PZ-B	373.92	364.49	363.60	364.21	363.02	362.62	362.50	363.26	362.71	363.00	362.97	362.59	363.01	362.67	362.54
PZ-C	374.85	365.69	366.29	367.02	365.93	365.97	365.47	365.38	365.30	365.54	365.99	365.53	365.54	365.56	365.52
PZ-D	375.12	365.78	366.25	366.99	365.99	365.91	365.53	365.37	365.30	365.53	366.06	365.58	365.67	365.59	365.55
PZ-E	374.12	364.75	364.25	364.86	363.73	364.00	363.41	363.61	363.54	364.22	364.67	364.67	364.08	363.57	363.67
PZ-F	377.06	366.17					365.56	365.50						365.37	365.27
PZ-G	377.16	366.21					365.66	365.60						365.46	365.36
PZ-HR	376.99	366.16					365.54							365.44	365.34
PZ-I	375.15	366.56					365.86	365.64						365.88	365.57
PZ-J	374.89	366.15					365.53	365.40						365.53	365.39
PZ-K	373.19	364.53	363.78	364.35	363.27	362.69	362.69	362.71	362.75	362.92	362.80	362.78	362.98	362.82	362.66
PZ-L	374.62	364.25	363.59	364.18	363.04	362.42	362.48	362.44		362.88	362.63	362.57	362.84	362.65	362.40
PZ-M	374.35	364.70	364.09	364.64	363.52	362.96	362.96	362.96	363.09	363.29	363.15	363.05	363.30	363.12	362.93
PZ-N	376.94***	365.79	366.37	367.06	365.99	365.91	365.53	365.39	365.33	365.55	365.97	365.58	365.59	365.59	365.55
PZ-O	375.36	364.29	363.68	364.29	363.21	362.84	362.72	362.87	362.78	363.05	362.97	362.80	363.03	362.81	362.74
PZ-P	376.89	366.25					365.65	365.60						365.52	365.39
PZ-Q	377.61	366.23					365.64	365.57						365.45	365.35
PZ-R	377.05	366.23		366.94			365.65	365.57						365.50	365.38
PZ-S	378.13	366.19					365.57	365.52						365.43	365.35
PZ-T	376.25	366.14					365.54	365.43						365.52	365.38
PZ-U	375.35	365.99		366.81			365.50	365.33						365.37	365.30
PZ-V	375.78	366.07					365.48	365.35						365.43	365.29
PZ-W	375.78	366.07					365.46	365.31						365.41	365.28

See notes on page 4.

Table 1. Summary of Historical Groundwater Level Measurements, June 1998 through June 2006, 2011 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Location	Reference Elevation (feet AMSL)	12/16/98 Week 22	12/22/98 Week 23	1/6/99 Week 25	1/13/99 Week 26	4/14/99 Week 39	6/3/99 Week 46	7/13/99 Week 52	3/27/00	6/1/00	9/18/00	11/14/00	3/19/01	9/24/01
Canal	393.39*	363.14	362.21	363.11			363.22	362.78	363.73	363.75	362.75^	363.24	363.01	362.96
Collection Sump	372.81	361.75	363.09	361.93	361.73	363.17	362.45	361.87	362.99	361.48	361.69	361.66	361.59	362.04
MW-3S	376.54	365.67	366.81	365.67	365.25		365.26		357.10					
MW-3D	375.56	365.04		365.04	364.91	365.41	364.92	364.57	355.64	365.57	364.81	355.16	365.40	364.54
MW-6D	377.07	365.23	365.36	365.23	365.06	365.62	365.12	364.79	365.85	365.77	364.97	365.34	365.64	364.75
MW-8D	374.68	364.86		364.88	364.74	365.22	364.77	364.35	365.42	365.36	364.62	364.94	365.18	364.34
MW-9D	376.76**	365.22	365.36	365.26	365.08	365.65	365.17	364.83	365.88	365.80	365.01	365.36	365.68	364.76
MW-11D	373.68	364.73		364.73	364.57	365.02	364.60	364.18	365.24	365.18	364.46	364.81	364.96	364.18
MW-11S	373.50	363.69	364.27	363.79	363.61	364.50	363.88	363.39	364.72	364.35	363.55	363.86	364.48	363.33
MW-18	372.57	361.93	362.05	362.05	361.84	362.18	361.79	361.38	362.43	361.77	361.71	362.08	362.17	361.50
MW-19	376.00	361.84	361.98	361.87	361.89	362.15	361.80	361.46	362.58	361.88	361.90	362.25	362.44	361.82
MW-23I	372.77	364.36		364.47	364.26	364.69	364.28	363.83	364.99	364.93	364.25	364.58	364.73	363.99
MW-23S	372.61	362.52	363.35	362.66	362.46	363.64	362.94	362.42	363.85	363.17	362.64	362.87	363.59	362.36
MW-24DR	375.14	364.67	364.81	364.69	364.54	364.96	364.49	364.09	365.19	364.60	364.39	364.77	364.91	364.16
MW-24SR	375.55	364.44	364.66	364.50	364.33	364.87	364.41	363.95	365.12	365.55	364.30	364.60	364.86	364.05
MW-25D	373.67	364.76		364.77	364.64	365.07	364.64	364.20	365.28	365.20	364.51	364.84	364.97	364.22
MW-25S	373.39	362.87	363.48	362.96	362.79	363.89	363.20	364.75	364.12	363.69	362.94	363.23	364.14	362.61
PZ-4D	376.11	364.73	364.87	364.72	364.55	365.02	364.60	364.22	365.28	365.21	364.49	364.82	365.03	364.22
PZ-5D	375.58	364.93	365.09	364.94	364.78	365.28	364.86	364.47	365.57	365.48	364.71	365.10	365.36	364.46
PZ-8D	375.83	365.33	365.48	365.33	365.19	365.78	365.08	365.00						
PZ-9D	377.29	365.08	365.24		364.94	365.50	365.04	364.68	365.70	365.72	364.87	365.16	365.55	364.60
PZ-A	373.94	362.60	364.04	362.72	362.56	363.81	363.12	362.61	363.95	363.15	362.75	362.91	363.56	362.58
PZ-B	373.92	362.51	364.27	362.62	363.45	363.91	363.19	362.67	364.08	363.32	362.79	362.94	363.94	362.55
PZ-C	374.85	365.52	365.97	365.18	365.02	365.79	365.10	364.75	366.04	366.04	365.03	365.35	366.39	364.54
PZ-D	375.12	365.53	366.06	365.25	365.12	365.79	365.18	364.89	366.09	366.10	365.10	365.46	366.36	364.65
PZ-E	374.12	363.53	366.41	363.57	363.52	364.93	364.20	363.81	365.16	365.03	363.92	364.40	365.90	363.49
PZ-F	377.06	365.52	365.73	365.62	365.27	366.36	365.53	365.11	366.89	366.72	365.27	365.70	367.06	364.93
PZ-G	377.16	365.60	365.76	365.71	365.44	366.44	365.61	365.17	366.89	366.80	365.36	365.75	367.11	364.93
PZ-HR	376.99	365.54	365.84	365.60	365.39	366.34	365.55	365.11	366.80	366.68	365.33	365.66	367.02	364.91
PZ-I	375.15	365.90	366.59	366.05	365.76	366.93	365.79	365.23	367.30	367.23	365.55	366.08	367.81	364.91
PZ-J	374.89	365.55	365.93	365.59	365.47	366.21	365.53	365.14	366.55	366.50	365.32	365.64	366.69	364.96
PZ-K	373.19	362.66	363.70	362.78	362.58	363.87	363.13	362.59	363.97	363.19	362.69	362.86	363.53	362.49
PZ-L	374.62	362.51	363.59	362.65	362.45	363.69	363.00	362.47	363.84	363.03	362.61	362.68	363.42	362.47
PZ-M	374.35	363.01	364.07	363.13	362.94	364.06	363.40	362.90	364.22	363.54	363.05	363.24	363.86	362.90
PZ-N	376.94***	365.56	366.09	365.31	365.12	365.87	365.19	364.87	366.17	366.12	NM	365.35	366.43	364.47
PZ-O	375.36	362.75	363.74	362.87	362.68	364.01	363.25	362.73	364.22	363.57	362.86	363.06	364.22	362.64
PZ-P	376.89	365.61	365.78	365.73	365.44	366.43	365.59	365.18	366.85	366.73	365.34	365.77	367.02	364.93
PZ-Q	377.61	365.59	365.70	365.71	365.42	366.44	365.60	365.16	366.93	366.78	365.26	365.76	367.21	364.89
PZ-R	377.05	365.61	365.81	365.67	365.47	366.46	365.61	365.20	366.89	366.81	365.37	365.72	367.21	364.93
PZ-S	378.13	365.57	365.94	365.65	365.40	366.39	365.56	365.15	366.84	366.73	365.32	365.71	367.12	364.90
PZ-T	376.25	365.58	365.96	365.64	365.47	366.34	365.53	365.10	366.71	366.65	365.29	375.70	366.90	364.90
PZ-U	375.35	365.49	365.91	365.55	365.40	366.17	365.46	365.08	366.55	366.49	365.22	365.60	366.75	364.85
PZ-V	375.78	365.47	365.90	365.52	365.37	366.20	365.44	365.06	366.54	366.50	365.25	365.58	366.76	364.83
PZ-W	375.78	365.44	365.78	365.53	365.33	366.15	365.41	365.02	366.49	366.41	365.20	365.59	366.63	364.85

See notes on page 4.

Table 1. Summary of Historical Groundwater Level Measurements, June 1998 through June 2006, 2011 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Location	Reference Elevation (feet AMSL)	4/15/02	6/3/02	6/18/02	10/7/02	1/20/03	5/5/03	10/27/03	6/14/04	11/1/04	6/6/05	10/31/05	6/5/06
Canal	393.39*	364.59	363.64	364.17	362.19	^^	363.34	363.34	363.39	363.39	364.39^^^	363.84	363.69
Collection Sump	372.81	362.27	361.50	361.42	362.05	361.90	361.91	361.86	362.11	362.00	361.49	362.96	361.70
MW-3S	376.54	367.70	366.26	367.50	364.26	366.27	366.38	366.98	366.65	365.54	365.82	368.11	368.19
MW-3D	375.56	364.16	364.55	365.10	363.92	365.10	365.53	365.05	365.59	365.27	365.36	366.25	366.07
MW-6D	377.07	364.22	364.62	365.21	364.07	365.31	365.75	365.24	365.80	365.46	365.59	366.45	366.29
MW-8D	374.68	364.13	364.51	365.01	363.82	^^	365.30	364.83	365.39				
MW-9D	376.76**	364.05	364.47	365.10	364.00	365.31	365.79	365.26	365.85	365.51	365.64	366.47	366.34
MW-11D	373.68	364.07	364.44	364.92	363.73	364.81	365.17	364.75	365.26	364.93	364.00	365.94	365.78
MW-11S	373.50	363.57	363.89	364.33	363.09	364.15	364.38	363.89	364.34	363.98	364.12	365.06	365.04
MW-18	372.57	361.65	362.09	362.50	361.37	362.26	362.69	362.26	362.62	362.29	362.37	363.17	363.07
MW-19	376.00	361.83	362.11	362.57	361.51	362.52	361.91	362.46	362.89	362.59	362.69	363.50	363.38
MW-23I	372.77	363.99	364.34	364.80	363.62	364.60	365.01	364.56	364.99	364.67	364.77	365.66	365.47
MW-23S	372.61	363.97	363.38	363.68	362.50	362.26	363.31	362.81	363.04	362.77	362.80	364.05	363.80
MW-24DR	375.14	364.06	364.43	364.90	363.71	364.75	365.13	364.69	365.19	364.86	364.94	365.90	365.74
MW-24SR	375.55	364.00	364.40	364.86	363.64	364.69	365.03	364.62	365.12	364.78	364.88	365.81	365.66
MW-25D	373.67	364.19	364.57	365.02	363.82	364.82	365.24	364.74	365.26	364.93	365.00	364.49	365.77
MW-25S	373.39	364.39	363.83	364.21	362.74	363.61	363.67	363.19	363.49	363.08	363.14	365.63	364.13
PZ-4D	376.11	364.06	364.43	364.94	363.73	364.81	365.23	364.78	365.28	364.96	365.07	365.96	365.85
PZ-5D	375.58	364.12	364.47	365.03	363.81	365.05	365.49	365.02	365.53	365.20	365.29	365.19	365.98
PZ-8D	375.83												
PZ-9D	377.29	363.75	364.14	364.79	363.71	365.08	365.64	365.09	365.68	365.35	365.48	366.33	366.19
PZ-A	373.94	363.92	363.05	363.22	362.59	^^	363.40	363.57	363.18	362.89	362.96	364.20	364.14
PZ-B	373.92	364.44	363.24	363.40	362.65	363.39	363.47	363.89	363.21	362.92	362.92	364.32	364.32
PZ-C	374.85	365.68	365.38	366.26	364.19	365.65	365.76	365.44	366.07	365.50	365.65	366.65	366.45
PZ-D	375.12	365.58	365.41	366.21	364.21	365.65	365.84	365.53	366.11	365.62	365.75	366.75	366.57
PZ-E	374.12	366.51	364.63	364.77	363.47	364.94	365.00	366.92	364.58	364.07	364.47	365.25	366.51
PZ-F	377.06	365.50	365.51	366.29	364.29	366.25	366.41	365.46	366.65	365.75	366.13	367.59	367.16
PZ-G	377.16	365.39	365.53	366.22	364.36	366.35	366.46	365.43	366.68	365.81	366.14	367.76	366.97
PZ-HR	376.99	365.39	365.46	366.19	364.24	366.22	366.41	365.50	366.62	365.81	366.12	367.56	367.14
PZ-I	375.15	366.29	366.16	367.05	364.22	366.58	366.90	365.97	367.01	365.26	366.41	368.02	367.82
PZ-J	374.89	365.10	365.18	365.89	364.21	365.96	366.73	365.61	366.45	365.86	366.07	367.29	367.04
PZ-K	373.19	363.82	363.19	363.48	362.56	363.25	363.36	363.12	363.13	362.84	362.97	364.21	364.01
PZ-L	374.62	363.44	362.96	363.26	362.53	363.42	363.25	363.06	363.04	362.79	362.91	364.02	363.89
PZ-M	374.35	363.93	363.37	363.62	362.82	363.60	363.77	363.66	363.61	363.31	363.45	364.53	364.40
PZ-N	376.94***	366.60	365.29	366.13	364.09	365.54	365.74	364.48	365.95	365.47	365.53	366.56	366.41
PZ-O	375.36	364.47	363.63	363.98	362.75	363.61	363.53	363.36	363.43	363.04	363.13	364.36	364.26
PZ-P	376.89	365.31	365.48	366.19	364.25	366.25	366.45	365.53	366.65	365.87	366.20	367.63	367.19
PZ-Q	377.61	366.11	365.70	366.41	364.41	366.40	366.55	365.38	366.77	365.85	366.21	367.80	367.16
PZ-R	377.05	365.40	365.58	366.31	364.31	366.34	366.46	365.31	366.72	365.85	366.17	367.73	367.15
PZ-S	378.13	365.27	365.53	366.29	364.31	366.29	366.42	365.42	367.18	367.10	366.31	367.83	367.20
PZ-T	376.25	365.34	365.37	366.10	364.20	366.16	366.38	365.74	366.54	365.85	366.13	367.48	367.15
PZ-U	375.35	365.18	365.23	365.96	364.18	366.00	365.83	365.66	366.43	365.82	366.05	367.33	367.07
PZ-V	375.78	365.30	365.24	365.97	364.15	365.98	366.71	365.84	366.44	365.76	365.99	367.33	367.06
PZ-W	375.78	365.05	365.12	365.86	364.09	365.88	366.18	365.49	366.36	365.72	365.98	367.21	366.94

See notes on page 4.

Table 1. Summary of Historical Groundwater Level Measurements, June 1998 through June 2006, 2011 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Notes:

1. Weeks 1, 2, 3, 4, 13, 18, 22, 23, 25, 26, 39, 46 and 52 are weeks after the initial introduction of Revised Anaerobic Mineral Media (RAMM) into the three impacted areas.
2. 8/10, 8/11, and 8/12/98 water level measurements were taken during the initial discrete RAMM injection event.
3. AMSL = above mean sea level (NGVD of 1929)
4. The groundwater level in PZ-8D was not measured on 3/27/00 and 6/1/00 because this piezometer was damaged and subsequently decommissioned on August 30, 2000.
5. ^ = The canal water-level measurement for the third quarter of the first year of the long-term process control monitoring program was obtained on September 29, 2000.
6. * = The reference elevation for canal gauging point was 363.06 feet AMSL prior to 11/16/00. The canal gauging point was re-marked and re-surveyed 11/16/00. The new reference elevation is 393.39 feet AMSL.
7. NM = The groundwater level in PZ-N was not measured on 9/18/00 because this piezometer was damaged. This piezometer was repaired and subsequently resurveyed on 11/16/00. The new reference elevation for PZ-N is 376.94 feet AMSL.
8. 376.76** = The reference elevation for MW-9D as of 9/19/01.
9. *** = The reference elevation for PZ-N was 376.02 feet AMSL prior to 11/16/00 and, as noted above, the new reference elevation is 376.94 feet AMSL.
10. ^^ = Due to frigid weather conditions, the groundwater level in PZ-A and MW-8D could not be measured on 1/20/03, because the locks were frozen. The canal water level for the 1/03 resampling event could not be measured due to strong winds and ice on the water surface.
11. Monitoring location MW-8D was decommissioned on August 3, 2004.
12. The canal water level measurement for the 2005 second quarter long-term process control monitoring program was obtained on November 1, 2005.
13. ^^^ = The water level measurement of the canal collected during the first 2005 monitoring was not measured from the correct measuring point. The spring 2005 measurement was taken approximately 3 feet higher than the surveyed measuring point. This value reflects the corrected canal water level for the spring 2005 monitoring event.

Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008,
2011 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-1[K]	3/88	370.3	355.3	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	1/89			<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
	11/89			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	7/99			**0.7 JN**	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00			**8 J**	<10 J	**3 J**	<10 J	**5.0 J**	<1,000	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	10
	9/01			<10	<10	<10	<10	<10	<1,000 J	<10	<10	<10	<10
	4/02			<12	<5.0	<5.0	<5.0	<10	**990 J**	<5	<5	<5	<5
	10/02			<25	<10	<10	<10	<20	<1,000	<10	<5	R	<10
	5/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/03			<12	<5	<5	<5	<10	<1,000	<5	**2 J**	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	**0.2 J**	<1.0	<3.0
	11/05			<1.3 J	<0.3	<0.4	<0.5	<0.5	<1,000	<0.4	<1.0	<1.0 J	<0.5
	6/06			<5.0 J	<1.0 J	<5.0 J	<4.0 J	<5.0 J	<1,000 J	<1.0 J	<1.0 J	<1.0 J	<3.0 J
	11/06			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0	<3.0
	6/07			<5	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500 J	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			**7.4**	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.6	<0.6	<3.0
MW-2S	3/88	368.1	353.1	<1,000	**1,900**	**110**	**610**	**2,800**	<1,000	<10	<10	<10	<10
	1/89			<1,000	**2,000**	**65**	**330**	**1,200**	<1,000	<10	<11	<11	<10
	11/89			<1,000	**1,800**	<100	**360**	**810**	**38,000**	<100	<100	<100	<100
MW-3S	3/88	365.1	350.1	<100	<1	<1	<1	<1	<1,000	**50**	<10	<10	**110**
	1/89			<10,000	<100	**120**	<100	<100	<1,000	**1,100**	<11	**5,570**	**4,700**
	11/89			<10,000	<100	<100	<100	<100	<1,000	**100**	<52	**440**	**2,700**
	11/91			**2,900**	**10**	**10**	**4.0**	**31**	<1,000	<10	**790**	**170**	<10
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5.0	**15**	**2.0 J**	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	7/99			<10	**1 J**	**0.7 J**	<10	<10	<1,000	<10	**9 J**	<10	<10
	3/00			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10	<10	<10
	9/00			<10 J	**1 J**	**2 J**	<10 J	<10 J	<1,000	<10 J	**2 J**	**1 J**	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	**3 J**	**8 J**	**1 J**	**2 J**	<1,000 J	<10	690 D (69)[B]	**4 J**	<10
	4/02			<12	<5	<5	<5	<10	**370 J**	<5.0	**1.7 J**	<5	<5

See notes on page 18.

Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008,
2011 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-3S	10/02			<25	<10	<10	<10	<20	<1,000	<10	<5	R	<10
(cont'd)	5/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/03			<12	<5	<5	<5	<10	<1,000	<5	4 J	<5	<5
	6/04			6.0 J	<10	<10	<10	<20	<1,000	<10	0.8 J	<6	<10
	11/04			<25	<10	<10	<10	<20	150 J	<10	4 J	<5.0	<10
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	15	<1.0	<3.0
	11/05			<1.3 J	<0.3	<0.4	<0.5	<0.4	<1,000	<0.4	<1.0	<1.0 J	<0.5
	6/06			<5.0	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/06			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500 J	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.6	<0.6	<3.0
MW-3D	8/95	343.8	339	<1,000	<25 D	<25 D	<25 D	<25 D	<1,000	<25 D	1 J	5 J	200 D
MW-4S	3/88	365.5	350.5	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	1/89			<100	<1	<1	<1	<1	<1,000	<1	<11	19	280
	11/89			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
MW-5[C]	3/88	363.3	348.3	<100	<1	<1	<1	<1	<1,000	<1	230	130	<1
	1/89			<100	<1	<1	<1	<1	<1,000	<1	34	<11	<1
	11/89			<100	<1	<1	<1	<1	<1,000	<1	17	<10	<1
MW-6[D]	1/89	365.5	355.9	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
(Replaced by MW-6S)	11/89			<10	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
MW-7[D]	1/89	367	357.4	<100	<1	<1	<1	2	<1,000	<1	<11	<11	100
	11/89			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
MW-8[D]	1/89	364.7	355.1	<1,000,000	<10,000	<10,000	<10,000	<10,000	430,000	<10,000	2,900	24,000	3,200,000
(Replaced by MW-8S)[E]	11/89			470,000	<10,000	<10,000	<10,000	<10,000	300,000	<10,000	8,500	52,000	2,800,000
	11/91			<1,000,000	<10,000	<10,000	<10,000	<30,000	150,000	<10,000	8,000	33,000	1,600,000
	8/95			<1,000	<250,000D	<250,000D	<250,000D	<250,000D	22,000	60,000 JD	<25,000D	380,000 D	7,700,000 D
	9/98			<10,000 J	<10,000	<10,000	<10,000	<10,000	7,900	3,300 J	1,200 J	26,000 D	140,000
	2/99			<20,000	<20,000	<20,000	<20,000	<20,000	16,000JN	11,000 J	30,000 D	120,000 D	650,000 DB
	7/99			10 J	22 J	240 J	58 J	220 J	17,000	11,000 J	24,000	77,000	450,000 D
	3/00			<100,000	<100,000	<100,000	<100,000	<100,000	30,000 J	<100,000	62,000	270,000 D	1,300,000
	9/00			<50,000 J	<50,000 J	<50,000 J	<50,000 J	<50,000 J	14,000 J	9,200 J	42,000 J	59,000	540,000 BJ
	3/01			<50,000	<50,000	<50,000	<50,000	<50,000	53,000	11,000 J	90,000 D	120,000 D	990,000
	9/01			<400	<400	430	170 J	680	8,900 J	18,000 JD	21,000	29,000	440,000 BD
	4/02			2,100	50 J	410	100 J	400	<1,000	9,600 J	793,000 D	773,000 D	660,000 D
	10/02			120 J	23	310	73	267	<1,000	3,100	80,000	21,000 J	320,000
	5/03			<12	20 J	600 D	81	300	<1,000	6,700 D	79,000 D	29 J	910,000 D
	10/03			21	25	330 D	93	360	1,200 J	3,100 D	67,000 D	24,000 D	400,000 D
	6/04			<25	40	330 EJ	110	400	<1,000	5,900 D	56,000	51,000	1,200,000 D

See notes on page 18.

Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008,
2011 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-8SR[B]	11/04	362.7	352.7	<1,200	<500	100 DJ	<500	164 DJ	<1,000	<500	35,000 D	5,300 D	10,000 D
(cont'd)	6/05			81 J	13	100	53	180	<1,000	<1.0	30,000	<200	<3.0
	11/05			15 J	13	130	66	260	<1,000	<1.0	32,000	<260 J	<3.0
	6/06			48	15	120	79	260	<1,000	<1.0	23,000	<200	<3.0
	9/06			NA	NA	NA	NA	NA	NA	NA	52,000 [51,000]	<520 [<520]	NA
	11/06			28	16	100	84	270	<500	<1.0	28,000	<200	<3.0
	6/07			58	14	110	83	250	<500	<2.0	2,700	<22	<6.0
	8/07			NA	NA	NA	NA	NA	NA	NA	17,000	<100	NA
	11/07			<5.0 J	12	22	73	210	<500	<1.0	22,000 J	<100 J	<3.0
	3/08			<10 [9.6 J]	5.5 [5.7]	22 [22]	70 [68]	160 [160]	<500 [<500]	<2.0 [<2.0]	5,800 [5,200]	<25 [<50]	<6.0 [<6.0]
	8/08			8.2 J [<10]	11 [11]	24 [22]	70 [70]	190 [190]	<500 [<500]	<2.0 [<2.0]	32,000 [25,000]	<250 [<250]	<6.0 [<6.0]
MW-9[D]	1/89	365.6	356	1,600	NA	64	130	270	<1,000	<10	660	1,200	1,500
(Replaced by MW-9S)	11/89			<1,000	48	25	60	60	<1,000	<10	670	150	<10
	11/91			<100	<10	9	19	30	<1,000	<1.0	95	18	<1
	8/95			<1,000	11 JD	26 JD	69 D	226 JD	<1,000	<50	50	28	110 D
	7/99			<10	4 J	2 J	9 J	18	<1,000	<10	<10	5.0 J	<10
	3/00			<10	2 J	2 J	11	21	<1,000 J	<10	2.0 J	9.0 J	<10
	9/00			<10 J	11 J	2 J	6.0 J	18 J	<1,000	<10 J	1.0 J	6.0 J	<10 J
	3/01			<10	1 J	3 J	17	61	<1,000	<10	2.0 J	11	<10
	9/01			<10	10	3 J	7.0 J	35	<1,000 J	<10	<10	10	<10
	4/02			<23	10	2 J	6	17 J	370 J	<5	9	43	<5
	10/02			16 J	38	40	2 J	15 J	<1,000	<10	<5.0	2.0 J	<10
	5/03			<12	11	<5	7	18	<1,000	<5.0	0.9 J	3.0 J	<5
	10/03			<12	2 J	<5	5	19	<1,000	<5.0	1.0 J	<5.0	<5
	6/04			14 J	6 J	2.0 J	8 J	19 J	<1,000	<10	<5.0	<5.0	<10
	11/04			<25	4 J	2 J	9 J	30 J	<1,000	<10	<5.0	<5.0	<10
	6/05			44 J	1.9	3.2 J	24	64	<1,000	<1.0	2.6	1.9	<3.0
	11/05			<1.3 J	3.5	3.8	11	33	<1,000	<0.4	1.4	6.1 J	<0.5
	6/06			<5.0 J	1.1 J	2.3 J	25 J	60 J	<1,000 J	<1.0 J	<1.1 J	3.8 J	<3.0 J
	11/06			<5.0	1.4	3.5 J	23	63	<500	<1.0	0.5 J	3.3 J	<3.0
	6/07			<5.0	1.4	3.3 J	42	110	<500	<1.0	<5.0	4.1	<3.0
	11/07			<5.0	0.9 J	2.0 J	11	58	<500 J	<1.0	1.7 J	8.6	<3.0
	3/08			<5.0 J	1.1	3.0 J	37	73	<500	1.2	0.7 J	6.8	<3.0
	8/08			24	3.7	3.3 J	21	72	<500	<1.0	<5.5	5.1	<3.0
MW-10[D]	1/89	355.5	345.9	<1,000,000	<10,000	<10,000	<10,000	<10,000	210,000	<10,000	720	9,400	520,000
(Replaced by MW-9D)	11/89			<100,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	900	2,400	28,000
	11/91			<100	<1	3.0	2.0	<3.0	<1,000	<1	230	<10	41
	8/95			<1,000	<25 UD	<25 UD	<25 UD	<25 UD	<1,000	<25 UD	<5.0	<10	350 D
MW-11[D]	1/89	355.1	345.5	<100	<1	<1	<1	<1	8,400	<1	<12	<12	1
(Replaced MW-6D)	11/89			<100	<1	<1	<1	<1	<1,000	<1	230	<52	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10

See notes on page 18.

Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008,
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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-11S	12/94	359.9	354.9	<380	<10	<10	<10	<10	**880**	<10	<5	<10	<10
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<26
	10/95			NA	<5	<5	<5	<5	NA	<5	NA	NA	<5
MW-11D	12/94	349.8	344.8	<310	<5	<5	<5	<5	**2,100**	<5	<5	<10	<5
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	10/95			NA	<5	<5	<5	<5	NA	<5	NA	NA	<5
MW-12D[D]	1/89	354.8	345.2	<100,000	<1,000	<1,000	<1,000	<1,000	**12,000**	<1,000	67	410	120,000
(Replaced MW-8D)[E]	11/89			**69,000**	<1,000	<1,000	<1,000	<1,000	**39,000**	<1,000	<1,000	4,900	360,000
	11/91			<1,000,000	<10,000	<10,000	<10,000	<30,000	<10,000	<10,000	750	5,800	220,000
	8/95			<1,000	450 JD	430 JD	430 JD	1,250 JD	<1,000	<1,300 D	30 D	230 D	<13,000 D
	8/96			**13**	<10	<10	<10	<10	<1,000	**2.0 J**	<5	<10	40
MW-13S	11/89	368.7	359.1	<100	3	<1	<1	<1	<1,000	<1.0	<52	<52	<1.0
	11/90			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
	11/91			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
	11/92			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
MW-14D[C]	1/89	359	349.4	<100	<1	<1	<1	<1	<1,000	<1.0	<11	<11	<1.0
	11/89			<100	<1	<1	<1	<1	<1,000	<1.0	<10	<10	<1.0
MW-15S	1/89	370	360.25	<100	<1	<1	<1	<1	<1,000	<1.0	<11	<11	<1.0
	11/89			<100	<1	<1	<1	<1	<1,000	<1.0	<52	<52	<1.0
MW-16D[C]	1/89	350.8	341.2	<100	<1	<1	<1	<1	<1,000	<1.0	<11	<11	<1.0
	11/89			<100	<1	<1	<1	<1	<1,000	<1.0	<10	<10	<1.0
MW-17[C]	11/90	365.7	356.1	<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
(Replaced by MW-17R)	11/91			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
	11/92			<100	<1	<1	<1	<3	<1,000	<1.0	<10	<10	<1.0
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<11
	10/95			NA	<5	<5	<5	<5	NA	**2 J**	NA	NA	<5
	8/96			**11**	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/99			<10	**1 J**	<10	<10	<10	<1,000	<10	<10	<10	<10 J
	3/00			<10	8 J	<10	<10	<10	<1,000 J	<10	<5.0	<10	<10
	9/00			<10 J	15 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	24 J	4 J	**1 J**
	3/01			<10	8 J	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	5 J	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	6	<5	<5	<10	**620 J**	<5	150 (<5)[F]	110 (<5)[F]	<5
	10/02			<25 J	14	<10	<10	<20	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	8	<5	<5	<5	<1,000	<5	<5	<5	<5
	11/03			<12	7	<5	<5	<10	<1,000	<5	<5	<5	<5

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-17[D]	6/04			<25	**5 J**	<10	<10	<20	<1,000	<10	<5	<5	<10
(cont'd)	11/04			--	--	--	--	--	**200 J**	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0	**0.8 J**	<5.0	<4.0	<5.0	<1,000	<1.0	<1.1	<1.1	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			<5.0	**0.7 J**	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500 J	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			**2.3 J**	**1.8**	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
MW-18	11/89	325.15	316.15	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	12/94			<10	<5	<5	<5	<5	<200	<5	<5	<10	<5
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<10	<10	<10	<20	**720 J**	<10	**280 D (<5)[F]**	**200 D (<5)[F]**	<10
	10/02			**6 J**	<10	<10	<10	<20	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	**280 J**	<5	<5	<5	<5
	10/03			<12	<5	<5	<5	<10	<1,000	<5	**0.7 J**	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	R	R	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.1	<1.1 J	<3.0
	6/06			<5.0	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-18	8/08			**5.5**	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.6	<0.6	<3.0
MW-19[K]	11/89	318.45	309.45	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	12/94			<10	<5	<5	<5	<5	<200	<5	<5	<10	<5
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<12
	10/95			NA	<5	<5	<5	<5	NA	<5	NA	NA	<5
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	5 J	<11
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	<10	<10	<10 J
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	10/03			<11	<5	<5	<5	<10	<1,000	<5	51 J	16 J	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.1	<1.1	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.5	<1.1	<3.0
	11/07			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.6	<0.6	<3.0
	3/09			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
MW-20[C]	11/89	329.85	320.85	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
MW-21[C]	11/89	323.65	314.65	<100	<5	<1	<1	<1	<1,000	<1	<10	<10	<1
MW-22[L]	11/89	368.55	359.55	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	10/10			<10	<1.0	<1.0	<1.0	<3.0	<500 J	<1.0	<5.0	<1.0	<1.0
MW-23S	12/94	364.1	354.1	<10	<5	<5	<5	<5	<200	<5	<5	<10	<5
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-23S	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/96			<10	<10	<10	<10	<10	<1,000	<10	7	<10	<10
	2/97			<10	<10	<10	<10	<10	<1,000	<10	11	<10	<10
	8/97			12	<10	<10	<10	<10	<1,000	<10	92	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	56[H]	7 J	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	10	<10 J
	6/99			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10 J	2 J	<10 J
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	2 J	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	2 J	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<62	<25	<25	<25	<50	380 J	<25	<5	<5	<25
	10/03			<12	<5	<5	<5	<10	<1,000	<5	60	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.2	<1.2	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.6	<0.6	<3.0
MW-23I	12/94	341.2	336.2	<10	<5.0	<5	<5.0	<5.0	<200	<5.0	<5.0	<10	<5
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<11	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10 J
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			4 J	<10	<10	<10	2 J	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	2 J
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-23I	10/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
(cont'd)	6/04			<25	<10	<10	<10	<20	<1,000	<10	**1 J**	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0 J	<1.0	**0.6 J**	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
MW-24S[CL]	12/94	358.4	352.4	<10	<5	<5	<5	<5	<1,000	<5	<5	<10	<5
(Replaced by MW-24SR)	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<10
	6/99			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10 J	<10 J	<10 J
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	6/02[F]			NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	10/03			<12	<5	<5	<5	<10	<1,000	<5	16	<6	<5
	6/04[J]			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.7	<0.6	<3.0
	9/09			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
MW-24D[CL]	12/94	334.4	341.2	<10	<5	<5	<5	<5	<1,000	<5	<5	<10	<5
(Replaced by MW-24DR)	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<10
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<10
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	<10	<10	<10 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	6/02[F]			NA	NA	NA	NA	NA	NA	NA	ND	ND	NA

See notes on page 18.

Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008,
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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-24D[DL]	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
(cont'd)	10/03			<12	<5	<5	<5	<10	<1,000	<5	**0.5 J**	<5	<5
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5 J	<1	<5	<4	<5	<1,000	<1	<1	<1	<3
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.1	<1.1 J	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.7	<0.6	<3.0
	9/09			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
MW-25S[L]	8/95	361.2	356.2	<1,000	<5	<5	<5	<5	<1,000	<5	<5	**0.7 J**	<10
	10/95			NA	<5	<5	<5	<5	NA	<5	<5	<10	<5
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	**130**	<10	<10 J
	6/99			<10 J	<10	<10	<10	<10	<1,000 J	<10	**110 J**	**21 J**	<10 J
	7/99			<10 J	<10	<10	<10	<10	<1,000	<10	**5 J**	<10	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/02			<25	<10	<10	<10	<20	<1,000	<10	<5[G]	<5[G]	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	11/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.1	<1.1	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.2	<0.5	<3.0
	3/09			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	9/09			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
MW-25D[L]	8/95	349.55	344.55	<1,000	<5	<5	<5	<5	<1,000	<5	<5	**1 J**	<5
	10/95			NA	<5	<5	<5	<5	NA	**3 J**	<5	<10	<5
	8/96			**15**	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<11	<10

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Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008,
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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-25D[L]	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10 J
(cont'd)	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	3/01			<10	<10	<10	<10	<10	<1,000	<10	**5 J**	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	6/06			<5.0 J	<1.0	**0.7 J**	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	6/07			**12 J**	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	3/09			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<0.5	<1.0
	4/10			<10	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
MW-26	12/96	365	355.3	<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
MW-27	9/98	362.5	354.5	**23**	**3 J**	**4 J**	<10	**3 J**	<1,000	<10	**340 DJ**	<10	<10
	7/99			<10 J	**4 J**	**2 J**	**3 J**	**8 J**	<1,000	<10	**740 D**	<10	<10
	3/00			<10	**6 J**	<10	**8 J**	**2 J**	<1,000 J	<10	**110 D**	**1 J**	<10
	9/00			<10 J	**4 J**	<10 J	**3 J**	**1 J**	<1,000 J	<10 J	**16 J**	**2 J**	**1 J**
	3/01			<10	**5 J**	<10	**5 J**	**2 J**	<1,000	<10	**260 D**	**2 J**	<10
	9/01			<10	**5 J**	<10	**2 J**	<10	<1,000 J	<10	**26**	<10	<10
	4/02			<18	**7**	**11**	**12**	**26**	<1,000	<5	**176,000 DJ**	**19 J**	<5
	10/02			**9 J**	**3 J**	<10	<10	<20	<1,000	**4 J**	**2,700 D**	**100 J**	**60 JN**
	5/03			<12	**8**	**11**	**23**	**51**	<1,000	<5	**15,000 DJ**	**11**	**43**
	10/03			**170**	**5**	<5	<5	**3 J**	<1,000	<5	**3,700 D**	<5	**240 D**
	6/04			**23 J**	**5 J**	**4 J**	**2 J**	**6 J**	<1,000	<10	**3,700 D**	**20 J**	<10
	11/04			<120 (28)	<50 (4 J)	<50 (2 J)	<50 (<10)	<100 (<20)	<1,000	<50 (<10)	**1,100 DJ**	<5	**310 (490 D)**
	6/05			**31 J**	**6.1**	**15**	**5.8**	**15**	<1,000	<1.0	**5,200**	<23	<3.0
	11/05			**35 J (37 J)**	**11 (12)**	**77 (78)**	**26 (26)**	**86 (88)**	<1,000 (<1,000)	<1.0 (<1.0)	**37,000 (38,000)**	<270 J (<260 J)	<3.0 (<3.0)
	6/06			**5.3 J (5.8 J)**	**9.5 J (8.9 J)**	**50 J (48 J)**	**25 J (25 J)**	**66 J (63 J)**	<1,000 J (<1,000 J)	<1.0 J (<1.0 J)	**14,000 J (12,000 J)**	<100 J (<100 J)	<3.0 J (<3.0 J)
	9/06			NA	NA	NA	NA	NA	NA	NA	**1,700**	<10	NA
	11/06			**31 [24]**	**14 [14]**	**71 [71]**	**42 [45]**	**91 [110]**	<500 [<500]	<1.0 [<1.0]	**33,000 [33,000]**	<210 [<200]	<3.0 [<3.0]
	6/07			**21**	**8.4**	**9.5**	**14**	**24**	<500	<1.0	**1,100**	<10	<3.0
	8/07			NA	NA	NA	NA	NA	NA	NA	**<10 J [4,300 J]**	<1.0 [<20]	NA
	11/07			<5.0 J [<5.0]	**6.6 [5.9]**	**4.7 J [4.1 J]**	**8.6 [7.2]**	**24 [21]**	<500 [<500]	<1.0 [<1.0]	**3,000 J [3,800 J]**	<25 J [<25 J]	<3.0 [<3.0]
	3/08			**21**	**9.4**	**23**	**43**	**68**	<500	<2.0	**13,000**	<100	<6.0
	8/08			**3.8 J**	**5**	**2.2 J**	**1.8 J**	**10**	<500	<1.0	**2,400**	<25	<3.0
MW-28	9/98	363.6	355.6	<5,000 J	<5,000	<5,000	<5,000	<5,000	**2,200**	<5,000	**546 D[H]**	**54**	**64,000 J**
	7/99			<500 J	<500	<500	<500	<500	<1,000	<500	**1,100 D**	**40**	**39,000 D**
	3/00			<10,000	<10,000	<10,000	<10,000	<10,000	<1,000 J	<10,000	**1,300 D**	**30**	**130,000 J**
	9/00			<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	<1,000 J	**540 DJ**	<10	**8,100 BJ**
	3/01			<400	<400	<400	<400	<400	<1,000	<400	**3,200 D**	**7 J**	**5,900 B**
	9/01			<400	<400	<400	<400	<400	<1,000 J	<400	**1,000 D**	<10	**4,700 B**

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Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008,
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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-28	4/02			<49	8	6	9	10 J	<1,000	<5	33,400 D	57	4,600 D
(cont'd)	10/02			14 J	8 J	6 J	11	12 J	<1,000	<10	2,700 D	R	<10
	5/03			13	4 J	2 J	2 J	8 J	<1,000	<5	1,000 DJ	3 J	52
	10/03			24	11	6	12	13 J	<1,000	<5	1,900 D	<5	<5
	6/04			20 J	4 J	2 J	5 J	4 J	<1,000	<10	910 D	<5	<10
	11/04			<120 (<25)	<50 (4 J)	<50 (<10)	<50 (5 J)	<100 (3 J)	190 J	<50 (<10)	640 DJ	<5	<50 (<10)
	6/05			5.2 J	4.5	1.2 J	4.6	3.9 J	<1,000	<1.0	630	<5.0	<3.0
	11/05			6.8 J (7.8 J)	6.1 (5.8)	<5.0 (<5.0)	4.7 (4.7)	<5.0 (<5.0)	<1,000 (<1,000)	<1.0 (<1.0)	380 J (350 J)	<2.2 (<2.1)	<3.0 (<3.0)
	6/06			<5.0 J (<5.0 J)	6.0 J (6.3 J)	1.2 J (1.3 J)	5.3 J (5.4 J)	4.2 J (4.3 J)	<500 J (<1,000 J)	<1.0 J (<1.0 J)	430 J (530 J)	<2.1 J (<5.0 J)	<3.0 J (<3.0 J)
	9/06			NA	NA	NA	NA	NA	NA	NA	280	<2.2	NA
	11/06			12	8.2	1.4 J	5.6	4.4 J	<500	<1.0	1,000	<5.2	<3.0
	6/07			13	4.6	0.4 J	0.8 J	0.6 J	<500	<1.0	60	<1.0	<3.0
	8/07			NA	NA	NA	NA	NA	NA	NA	40	<1.0	NA
	11/07			<5.0 J	4.5	0.5 J	1.4 J	0.8 J	<500	<1.0	29 J	<0.5 J	<3.0
	3/08			<5.0	4.0	0.5 J	1.6 J	1.3 J	<500	<1.0	81	0.9	<3.0
	8/08			<5.0	3.8	<5.0	<4.0	<5.0	<500	<1.0	0.7 J	<0.5	<3.0
MW-29	9/98	362.9	345.9	<10	<10	<10	<10	2 J	<1,000	<10	<10	13	<10
	2/99			7 J	<10	<10	<10	1 J	<1,000	<10	5 J	4 J	<10
	7/99			<10	<10	<10	<10	<10	<1,000	<10	2 J	4 J	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	450 D	6 J	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	24 J	4 J	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	30	4 J	<10
	9/01			<10	<10	<10	<10	<10	<1,000	<10	7 J	2 J	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	3 J	9	<6
	10/02			<25 J	<10	<10	<10	<20	<1,000	<10	8	R	4 JN
	5/03			<12	<5	<5	<5	<10	<1,000	<5	19	1 J	<3
	10/03			<12	<5	<5	<5	<10	<1,000	<5	2 J	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	3 J	<5	<10
	11/04			<120	<50	<50	<50	<100	420 J	<50	<5	<5	<50
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/06			5.4	<1.0	<5.0	<4.0	<5.0	<500	<1.0	0.4 J	<1.0	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	0.5 J	<500	<1.0	<5.5	<1.1	<3.0
	11/07			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0 J	<0.5 J	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
MW-30	9/98	363.5	355.5	<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	2/99			7 J	<10	<10	<10	<10	<1,000	<10	<10	2 J	<10
	7/99			<10	0.7 J	<10	<10	<10	<1,000	0.5 J	<10	1 J	<10
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	18	2 J	4 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	9 J	2 J	2 J

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-30	3/01			<10	<10	<10	<10	<10	<1,000	<10	8 J	2 J	<10
(cont'd)	9/01			4 J	2 J	<10	<10	<10	<1,000 J	<10	8 J	1 J	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	250	210	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	R	R	<10
	5/03			<62	<25	<25	<25	<50	<1,000	<25	18	0.6 J	8 J
	10/03			<12	<5	<5	<5	<10	<1,000	<5	4 J	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			<120	<50	<50	<50	<100	<1,000	<50	<5	<5	<50
	6/05			<5.0 J	0.3 J	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	0.7 J	0.6 J	<4.0	0.5 J	<1,000	<1.0	240	<1.0 J	<3.0
	6/06			<5.0	0.6 J	0.4 J	<4.0	<5.0	<1,000	<1.0	29	<1.0	<3.0
	11/06			11	1.0	<5.0	<4.0	<5.0	<500	<1.0	200	<1.0	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	30	<1.1	<3.0
	11/07			<5.0 J	0.8 J	<5.0	<4.0	<5.0	<500	<1.0	49	<0.5	<3.0
	3/08			<5.0	0.6 J	<5.0	<4.0	0.2 J	<500	<1.0	3.0 J	0.7	<3.0
	8/08			<5.0	0.7 J	<5.0	<4.0	<5.0	<500	<1.0	31	<0.5	<3.0
MW-31	9/98	363.7	355.4	<10	12	<10	<10	<10	<1,000	<10	34	4 J	<10
	7/99			<10	16	<10	<10	<10	<1,000	<10	230 D	3 J	<10
	3/00			<10	16	<10	<10	<10	<1,000 J	<10	3 J	4 J	<10
	9/00			<10 J	12 J	<10 J	<10 J	<10 J	<1,000	<10 J	10	6 J	<10 J
	3/01			21	11	<10	<10	<10	<1,000	<10	<10	5 J	<10
	9/01			<10	14	<10	<10	<10	<1,000 J	<10	91 D	3 J	<10
	4/02			<14	9	<5	<5	<10	<1,000	<5	804 D	21	<5
	10/02			<25	11	<10	<10	<20	<1,000	<10	560 D	1 J	<10
	5/03			<12	9	<5	<5	<10	<1,000	<5	0.9 J	3 J	<5
	10/03			1,200 D	13	<5	<5	<5	<1,000	<5	88	<5	<5
	6/04			15 J	12	<10	<10	<20	<1,000	<10	3 J	<5	<10
	11/04			<25	9 J	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	11	<5.0	<4.0	1.3 J	<1,000	<1.0	3.2	2.7	<3.0
	11/05			<1.3 J	6.7	<0.4	<0.5	0.6	<1,000	<0.4	16	<1.0 J	<0.5
	6/06			<5.0 J	11 J	0.6 J	<4.0 J	1.7 J	<1,000 J	<1.0 J	<1.0 J	2.4 J	<3.0 J
	9/06			NA	NA	NA	NA	NA	NA	NA	1.6	3.4	NA
	11/06			R	6.9	<5.0	<4.0	<5.0	<500	<1.0	0.4 J	1.1 J	<3.0
	6/07			<5.0	14	0.7 J	<4.0	1.3 J	<500	<1.0	<5.0	2.0	<3.0
	8/07			NA	NA	NA	NA	NA	NA	NA	0.5 J	2.7	NA
	11/07			<5.0 [<5.0]	12 [10]	<5.0 [0.4 J]	<4.0 [<4.0]	1.1 J [1.4 J]	<500 J [<500 J]	<1.0 [<1.0]	<5.0 [0.3 J]	2.3 [2.8]	<3.0 [<3.0]
	3/08			<5.0 J	2.0	<5.0	<4.0	<5.0	<500	<1.0	0.2 J	1.6	<3.0
	8/08			22	13	0.4 J	<1.0	2.2 J	<500	<1.0	<5.6	2.4	<3.0
MW-32	9/98	364	356	<10	16	2 J	5 J	3 J	<1,000	<10	6,300 D	4 J	<10
	7/99			3 J	14	2 J	4 J	<10	<1,000	56	<10	3 J	<10
	3/00			<10	5 J	<10	<10	<10	<1,000 J	<10	800 D	<10	<10

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-32	9/00			<10 J	12 J	<10 J	<10 J	<10 J	<1,000	<10 J	4,500 D	<10	<10 J
(cont'd)	3/01			<10	5 J	<10	<10	<10	<1,000	<10	1,900 D	2 J	<10
	9/01			<10	10	<10	<10	<10	<1,000 J	<10	1,100 D	2 J	<10
	4/02			<15	4 J	<5	<5	<10	<1,000	<5	4,620 D	11	<5
	10/02			<25	4 J	<10	<10	<20	<1,000	<10	50	R	<10
	5/03			<12	<5	<5	<5	<10	<1,000	<5	0.6 J	0.7 J	<5
	10/03			20	2 J	<5	<5	<10	<1,000	<5	<5	<5	<5
	6/04			6 J	1 J	<10	<10	<20	<1,000	<10	1 J	<5	<10
	11/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	1.0	<5.0	<4.0	<5.0	<1,000	<1.0	0.4 J	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0 J	<1.0 J	<5.0 J	<4.0 J	<5.0 J	<1,000 J	<1.0 J	<1.0 J	<1.0 J	<3.0 J
	11/06			R	<1.0	0.8 J	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500 J	<1.0	0.1 J	0.8	<3.0
	3/08			<5.0 J	0.8 J	<5.0	<4.0	<5.0	<500	<1.0	<5.0	0.8	<3.0
	8/08			5.8	0.3 J	<5.0	<4.0	<5.0	<500	<1.0	<5.7	<0.6	<3.0
MW-33	9/98	344.1	356.1	<10	<10	<10	<10	<10	<1,000	<10	9 J	6 J	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	120	6 J	<10
	7/99			5 J	2 J	0.7 J	<10	<10	<1,000	<10	150	8 J	<23
	3/00			<10 J	<10	<10	<10	<10	<1,000 J	<10	51	7 J	11
	9/00			45 J	4 J	1 J	<10 J	<10 J	<1,000	<10 J	540 D	23	330 DJ
	3/01			17 J	<20	<20	<20	<20	<1,000	<20	1,300 D	16	370 B
	9/01			21	5 J	<10	<10	<10	<1,000 J	<10	1,900 D	12	<18
	4/02			<18	3 J	<5	<5	<10	<1,000	<5	2,780 D	21	19
	10/02			11 J	4 J	<10	<10	<20	<1,000	<10	290 D	3 J	4 J
	5/03			88	13	<5	<5	<10	<1,000	<5	2,000	35 J	2,800 D
	10/03			22	2 J	<5	<5	<10	<1,000	<5	1,900 D	<6	<5
	6/04			9 J	12 J	<10 J	<10 J	<20 J	<1,000	<10 J	2,700 D	5 J	<10 J
	11/04			--	--	--	--	--	<1,000	--	2,700 D	5 J	--
	6/05			<5.0 J	11	1.0 J	<4.0	<5.0	<1,000	<1.0	1,800	<10	<3.0
	11/05			<5.0 J	16	1.8 J	<4.0	<5.0	<1,000	<1.0	3,500	<25 J	<3.0
	6/06			<5.0 J	6.7 J	0.7 J	<4.0 J	<5.0 J	<1,000 J	<1.0 J	370 J	3.5 J	<3.0 J
	9/06			NA	NA	NA	NA	NA	NA	NA	940	8.0	NA
	11/06			17 J	8.6	0.7 J	<4.0	<5.0	<500	<1.0	84	2.9 J	<3.0
	6/07			<5.0	5.7	0.4 J	<4.0	<5.0	<500	<1.0	46	2.6	<3.0
	8/07			NA	NA	NA	NA	NA	NA	NA	46	4.2	NA
	11/07			<5.0	4.0	<5.0	<4.0	<5.0	<500 J	<1.0	0.1 J	3.5	<3.0
	3/08			<5.0 J	4.1	<5.0	<4.0	<5.0	<500	<1.0	<5.0	4.1	<3.0
	8/08			<5.0	3.2	<5.0	<4.0	<5.0	<500	<1.0	<5.9	2.8	<3.0

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-34	9/98	362.7	354.7	<10	<10	<10	<10	<10	<1,000	<10	83	<10	<10
	7/99			2 J	0.9 J	1 J	<10	<10	<1,000	<10	380 D	2 J	<10
	3/00			<10 J	1 J	2 J	<10	<10	<1,000 J	<10	200 D	3 J	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	320 D	4 J	<10 J
	3/01			<10	<10	2 J	<10	2 J	<1,000	<10	700 D	5 J	<10
	9/01			7 J	2 J	2 J	<10	2 J	<1,000 J	<10	76	3 J	<10
	4/02			<32	<5	<5	<5	<10	<1,000	<5	640 D	15	<5
	10/02			37 J	<10	<10	<10	<20	<1,000	<10	380 DJ	2 J	<10
	5/03			16	<5	<5	<5	<10	<1,000	<5	140	3 J	<5
	10/03			9 J	<5	<5	<5	<10	<1,000	<5	18	<5	<5
	6/04			24 J	<10	<10	<10	<20	<1,000	<10	30	<5	<10
	11/04			<25	<10	<10	<10	<20	180 J	<10	14	<5	<10
	6/05			5.6 J	0.7 J	0.9 J	<4.0	1.2 J	<1,000	0.4 J	16	2.5	<3.0
	11/05			20 J	<0.3	0.9	<0.5	1.1	<1,000	<0.4	12	2 J	<0.5
	6/06			6.4	0.6 J	0.5 J	<4.0	<5.0	<1,000	<1.0	16	2.3	<3.0
	11/06			49 J	<1.0	0.6 J	<4.0	0.6 J	<500	<1.0	9.9	1.2 J	<3.0
	6/07			22	0.9 J	0.5 J	<4.0	0.6 J	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	0.8 J	0.6 J	<4.0	1.1 J	<500 J	<1.0	0.3 J	1.5	<3.0
	3/08			16	1.0 J	0.5 J	<4.0	1.1 J	<500	<1.0	24	1.3	<3.0
	8/08			12	0.8 J	0.5 J	<4.0	1.1 J	<500	<1.0	0.6 J	1.6	<3.0
MW-35	9/98	363	355	<10	<10	<10	<10	<10	<1,000	<10	6 J	5 J	<10
	7/99			<10	0.7 J	<10	<10	<10	<1,000	<10	3 J	4 J	<10
	3/00			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10	2 J	<10
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	<10	3 J	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			<10	<10	<10	<10	<10	<1,000 J	<10	<10	2 J	<10
	4/02			<13	<5	<5	<5	<10	<1,000	<5	3 J	4 J	<5
	10/02			<25	<10	<10	<10	<20	<1,000	<10	2 J	R	<10
	5/03			<12	<5	<5	<5	<10	<1,000	<5	1,000	<100	<5
	10/03			5 J	<5	<5	<5	<10	<1,000	<5	4 J	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	30	4 J	<10
	11/04			<25	<10	<10	<10	<20	240 J	<10	82	<5	<10
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	6/06			<5.0	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	0.4 J	<1.0	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	1.1	<1.0 J	<3.0
	6/07			13	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500 J	<1.0	<5.0	<0.5	<3.0
	3/08			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			5.4	<1.0	<5.0	<4.0	<5.0	<500	<1.0	1.1 J	<0.5	<3.0
MW-36[E]	9/98	363.6	355.6	<10	<10	<10	<10	<10	<1,000	<10	290 D	6 J	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	860 D	4 J	<10
	7/99			8 J	0.8 J	<10	<10	<10	<1,000	<10	250	<10	<10
	3/00			<10 J	<10	<10	<10	<10	<1,000 J	<10	60	7 J	<10
	9/00			5 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	8 J	6 J	<5
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01			54	<10	<10	<10	<10	<1,000 J	<10	350 D	5 J	<10
	4/02			<20	<5	<5	<5	<10	<1,000	<5	9	41	<5
	10/02			12 J	<10	<10	<10	<20	<1,000	<10	2 J	2 J	<10

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Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
MW-36[E]	5/03			9 J	<5	<5	<5	<10	<1,000	<5	67	4 J	<5
	10/03			580 D	<5	<5	<5	<10	<1,000	<5	100	<5	<5
	6/04			22 J	<10 J	<10 J	<10 J	<20 J	<1,000	<10 J	33	7	<10 J
	11/04			13 J	<10	<10	<10	<20	<1,000	<10	22	<5	<10
	6/05			24 J	2.1	<5.0	<4.0	1.0 J	<1,000	<1.0	1,200	<5.4	<3.0
	11/05			77 J	3.6	2.0 J	0.6 J	2.8 J	<1,000	<1.0	1,600	<10 J	<3.0
	6/06			25	1.6	0.7 J	<4.0	1.2 J	<1,000	<1.0	76	1.9	<3.0
	9/06			NA	NA	NA	NA	NA	NA	NA	3.5	1.2	NA
	11/06			130 J	3.6	1.2 J	<4.0	1.1 J	<500	<1.0	420	1.7 J	<3.0
	6/07			33	4.6	1.4 J	0.8 J	5.0	<500	<1.0	1,300	<10	<3.0
	8/07			NA	NA	NA	NA	NA	NA	NA	740	<5.0	NA
	11/07			10	4.5	1.7 J	0.9 J	5.3	<500 J	<1.0	480 J	3.4 J	<3.0
	3/08			8.0 J	4.2	1.5 J	0.8 J	5.5	<500	<1.0	130	3.0	<3.0
	8/08			27	3.7	1.4 J	0.6 J	5.7	<500	<1.0	4.5 J	3.2	<3.0
TW-01	12/96	365.1	355.4	<10	82	4 J	6 J	4 J	<1,000	<10	2,090 D	13	4 J
	9/98			<10	15	<10	4 J	<10	<1,000	<10	4,400 DEJ	4 J	<10
	2/99			<10	24	2 J	2 J	2 J	<1,000	<10	9,000 D	5 J	<10
	7/99			<10	16	1 J	3 J	<10	<1,000	<10	4,400 D	4 J	<10
	3/00			<10	16	<10	<10	<10	<1,000 J	<10	280 D	4 J	<10
	9/00			<10 J	11 J	<10 J	<10 J	<10 J	<1,000	<10 J	15	2 J	<10 J
	3/01			<10	5 J	<10	<10	<10	<1,000	<10	<10	3 J	<10
	9/01			<10	10	<10	<10	<10	<1,000 J	<10	<10	2 J	<10
	4/02			<14	3 J	<5	<5	<10	<1,000	<5	8	13	<5
	10/02			<25	7 J	<10	<10	<20	<1,000	<10	<5	R	<10
	5/03			<12	7	<5	<5	<10	<1,000	<5	<5	1 J	<5
	10/03			<12	6	<5	<5	<10	<1,000	<5	0.6 J	<5	<5
	6/04			6 J	3 J	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			<25	2 J	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	1.8	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<1.3 J	1.9	<0.4	<0.5	<0.4	<1,000	<0.4	<1.0	<1.0 J	<0.5
	6/06			<5.0 J	1 J	<5.0 J	<4.0 J	<5.0 J	<1,000 J	<1.0 J	<1.0 J	0.8 J	<3.0 J
	11/06			R	0.7 J	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	6/07			7.8	0.5 J	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<1.0	<3.0
	11/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500 J	<1.0	0.2 J	1.1	<3.0
	3/08			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	1.0	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.6	<0.6	<3.0
TW-02[D]	12/96	363.3	353.3	53	10	77	16	65	<1,000	585 D	15,900 JD	3,920 D	42,449 D
(Replaced by TW-02R)[E]	9/98			<500 J	<500 J	<500 J	<500 J	53,000	5,000	300 J	38,000 D	61,000 D	86,000 D
	2/99			<1,000	<1,000	190 J	<1,000	150 J	14,000JN	<1,000	83,000 D	7,900	14,000 B
	7/99			630	37	240 J	31	150	<1,000	55	100,000 D	3,500 J	9,700 D
	3/00			<1,000 J	<1,000	160 J	<1,000	240 J	<1,000 J	<1,000	64,000 D	3,900	13,000
	9/00			190 J	28 J	95 J	35 J	160 J	<1,000	6 J	79,000	<10,000	390 J
	3/01			81	19	68	28	130	<1,000	<10	67,000 D	650 J	400 D
	9/01			57	25	70	31	140	<1,000 J	<20	63,000 D	32	48 B
	4/02			240	19	65	23	96	<1,000	<5	1,090,000 D	<5,300	14
	10/02			110 J	15	19	23	65	<1,000	<10	80,000 D	10 J	<10
	5/03			240	30	130	49	226	<1,000	<5	160,000 D	230	97
	10/03			68	28	75 J	<5	<10	<1,000	2 J	92,000 D	<260	91
	6/04			140 J	19 J	39 J	31 J	111 J	<1,000	<10 J	82,000	<5,200	4 J

See notes on page 18.

Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008,
2011 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
TW-02RR[RE]	11/04	363.3	353.3	18 J	4 J	8 J	4 J	16 J	<1,000	<10	7,100 D	<5	<10
	6/05			7.2 J	3.6	2.1 J	3.6 J	9.6	<1,000	0.3 J	8,400	<50	<3.0
	11/05			26 J	6	4.1	3.6	11	<1,000	<0.4	14,000	<110 J	<0.5
	6/06			16	4.4	1.3 J	2.7 J	6.7	<1,000	<1.0	10,000	<100	<3.0
	9/06			NA	NA	NA	NA	NA	NA	NA	7,600	<52	NA
	11/06			78 J	4.9	1.4 J	2.2 J	6.2	<500	<1.0	2,100	<10 J	<3.0
	6/07			17	5.5	1.3 J	4.0	8.8	<500	<1.0	6,800	<100	<3.0
	8/07			NA	NA	NA	NA	NA	NA	NA	4,000 J	<20	NA
	11/07			5.5	5.8	1.2 J	3.0 J	7.6	<500 J	<1.0	3,700	<25	<3.0
	3/08			6.4 [5.2]	4.5 J [2.3 J]	1.3 J [0.7 J]	3.8 J [1.9 J]	10 [4.8 J]	<500 [<500]	<1.0 [<1.0]	7,500 [5,400]	<50 [<50]	<3.0 [<3.0]
	8/08			9.0 [9.6]	4.4 [4.6]	1.0 J [1.1 J]	2.3 J [2.4 J]	6.7 [7.0]	<500 [<500]	<1.0 [<1.0]	9,600 [7,000]	<71 [<56]	<3.0 [<3.0]
PZ-4D	11/89	350.8	345.9	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	0.8 J	<5
	10/95			NA	<5	<5	<5	<5	NA	<5	<5	<10	<5
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<6	<12	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10 J
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	6/06			<5.0	<1.0	0.5 J	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.5	<1.1	<3
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
PZ-4S	11/89	362.79	357.88	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	<10	<18
	10/95			NA	<5	<5	<5	<5	NA	<5	NA	NA	<5
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	6/99			<10 J	<10	<10	<10	<10	<1,000 J	<10	<10 J	<10 J	<10 J
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	3 J	<10
	4/02			<14	<5	<5	<5	<10	<1,000	<5	8 (<5)[F]	<5 (<5)[F]	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[U]	<5[U]	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	6/06			<5.0	<1.0	0.6 J	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	6/07			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.5	<1.1	<3.0
	3/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0

See notes on page 18.

Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008,
2011 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (ft. AMSL) Top	Bottom	Acetone	Benzene	Toluene	Ethyl-benzene	Xylene[A]	Methanol	Trichloro-ethene	Aniline	N,N-Dimethyl-aniline	Methylene Chloride
NYSDEC Groundwater Quality Standards (Part 700)				50	1	5	5	5	NS	5	5	1	5
PZ-5D[L]	11/89	353.5	348.6	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	12/94			<10	<5	<5	<5	<5	<200	<5	<5	<10	<5
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<12
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	<10	<10	<10 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	10/03			<12	<5	<5	<5	<10	<1,000	<5	46	<5	<5
	6/04 [J]			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0	<3.0
	11/05			<5.0 J	<1.0	0.7 J	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	11/07			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.1	<0.5	<3.0
	9/09			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
PZ-5S[KL]	11/89	361.42	356.52	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
	12/94			<10	<5	<5	<5	<5	<200	<5	<5	<10	<5
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			5 J	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5[H]	<10	<12
	6/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10 J	<10 J	<10 J
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10	<10	<10 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	9/01			7 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5[G]	<5[G]	<10
	10/03			<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	11/04			--	--	--	--	--	<1,000	--	<5	<5	--
	6/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.1	<1.1	<3.0
	11/05			<5.0 J	<1.0	<5.0	<4.0	<5.0	<1,000	<1.0	<1.0	<1.0 J	<3.0
	11/06			R	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<1.0	<1.0 J	<3.0
	11/07			<5.0 J	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.0	<0.5	<3.0
	8/08			<5.0	<1.0	<5.0	<4.0	<5.0	<500	<1.0	<5.3	<0.5	<3.0
	9/09			<10 J	<1.0	<1.0	<1.0	<3.0	<500	<1.0	<5.0	<1.0	<1.0
PZ-8S[I]	9/98	362.6	357.7	<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
PZ-11D[D]	11/89	352.09	347.19	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
PZ-11S[D]	11/89	359.09	354.19	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
PZ-12D[D]	11/89	350	345.1	<100	<1	<1	<1	<1	<1,000	<1	<53	<53	<1
	11/90			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<1	3	<1	<10	<10	<1
	11/92			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
PZ-12S[D]	11/89	360	355.1	<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
	11/90			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
	11/91			<100	<1	<1	<1	<3	6	<1	<10	<10	5
	11/92			<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
PZ-13D[C]	11/89	349.4	344.4	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
PZ-13S[C]	11/89	359.5	354.5	<100	<1	2	<1	2	<1,000	<1	<11	<11	<1

See notes on page 18.

Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008,
2011 Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

General Notes:

1. Concentrations are presented in micrograms per liter, which is equivalent to parts per billion.
2. Compounds detected are indicated by bold-faced type.
3. Detections exceeding New York State Department of Environmental Conservation (NYSDEC) Groundwater Standards (Part 700) are indicated by shading.
4. Replacement wells for MW-6, MW-8, MW-9, MW-10, MW-11 and MW-12D were installed 8/95.
5. Replacement wells for MW-17, MW-24S, MW-24D and TW-02 were installed 11/97 - 12/97.
6. The laboratory analytical results for the duplicate sample collected from monitoring well MW-23S during the 7/99 sampling event indicated the presence of methanol at 5.1 milligrams per liter. Because methanol was not detected in the original sample, the duplicate results were determined, based on the results of the data validation process, to be unacceptable. Furthermore, methanol has not been previously detected in groundwater samples collected from this monitoring well. Accordingly, the detection of methanol appears to be the result of a laboratory error and not representative of actual groundwater quality in the vicinity of monitoring well MW-23S.
7. N,N-dimethylaniline data for 10/02 sampling event for MW-1, MW-3S, MW-28, MW-29, MW-32, MW-35 and TW-01 were rejected due to matrix spike and matrix spike duplicate recoveries below control limits. Aniline and N,N-dimethylaniline data for 10/02 sampling event for MW-30 were rejected due to matrix spike and matrix spike duplicate recoveries below control limits. These wells and piezometers are not perimeter monitoring locations and were not resampled.
8. Aniline and N,N-dimethylaniline results of nondetect for the 6/04 sampling event at MW-18 were rejected due to the deviation from a surrogate recovery that was below 10%. This well was not resampled.
9. Volatile organic compound (VOC) results for the 11/04 sampling event were inadvertently lost due to laboratory equipment failure for monitoring locations MW-1, MW-17R, MW-18, MW-23I, MW-23S, MW-24DR, MW-24SR, MW-25, MW-33, PZ-5D and PZ-5S. In addition, the initial VOC results were also irretrievable due to laboratory equipment failure for monitoring locations MW-27, MW-28, MW-29 and MW-30; however, results for subsequent dilutions of these groundwater samples were valid, but the detection limits were high. The duplicate sample VOC results for MW-27 and MW-28 have lower detection limits and are presented in parentheses. These wells were not resampled.

Superscript Notes:

[A] = Data presented is total xylenes (m- and p-xylenes and o-xylenes). For the 1995 data, the listed quantitation limit applies to the analyses conducted for m- and p-xylenes and o-xylenes.

[B] = Because aniline was detected at monitoring well MW-3S at a concentration of 690 ug/l during the September 2001 sampling event, this well was resampled for aniline on November 8, 2001. Aniline was detected in MW-3S during the November 8, 2001 resampling event at a concentration of 69 ug/l.

[C] = Wells/piezometers MW-5, MW-14D, MW-16D, MW-17, MW-20, MW-21, MW-24S, MW-24D, TW-02, PZ-13S, and PZ-13D were abandoned 11/97 - 1/98.

[D] = Wells/piezometers MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12D, PZ-11D, PZ-11S, PZ-12D, and PZ-12S were abandoned during OU No.1 soil remediation activities (1994).

[E] = Wells MW-8S, MW-8D, and TW-02R were abandoned in 8/04 and replacement wells MW-8SR and TW-02RR were installed in 8/04.

[F] = MW-17R, MW-18, and PZ-4S wells/piezometers were resampled for aniline and N,N-dimethylaniline on June 18, 2002 because N,N-dimethylaniline and/or aniline was detected during the April 2002 sampling event. The results of this additional sampling event are shown in parenthesis. MW-24SR and MW-24DR were also sampled for aniline and N,N-dimethylaniline on June 18, 2002, because N,N-dimethylaniline and/or aniline was detected at nearby perimeter monitoring locations during the April 2002 sampling event.

[G] = MW-17R, MW-18, MW-19, MW-23S, MW-23I, MW-24DR, MW-24SR, MW-25S, PZ-4S, PZ-5S and PZ-5D wells/peizometers were resampled for aniline and N,N-dimethylaniline during 1/03, because the 10/02 results were rejected due to matrix spike and matrix spike duplicate recoveries below control limits. These wells and piezometers are perimeter monitoring locations.

[H] = MW-18, MW-19, MW-23I, MW-23S, MW24DR, MW-24SR, MW-28, PZ-5S and PZ-5D wells/piezometers were resampled for aniline during 12/98, because the 9/98 results were rejected due to laboratory error.

[I] = Piezometer PZ-8S was decommissioned 8/00.

[J] = MW-24SR and PZ-5D well and piezometer were sampled during the June 2004 sampling event because N,N-dimethylaniline and/or aniline was detected at nearby perimeter monitoring locations during the October 2003 sampling event.

[K] = Wells/piezometers MW-1, MW-19, and PZ-5S were abandoned 11/10.

[L] = Wells/piezometers, MW-22, MW-24S, MW-24D, MW-25S, MW-25D, PZ-5S and PZ-5D were eliminated from the groundwater monitoring program after the 10/10 sampling event; therefore all data for these locations are presented in this table.

Abbreviations:

AMSL = Above mean sea level (NGVD of 1929).
NA = Parameter not analyzed for.
ND = Not detected.
NS = Standard not available.

Analytical Qualifiers:

D = Indicates the presence of a compound in a secondary dilution analysis.
J = The compound was positively identified; however, the numerical value is an estimated concentration only.
E = The compound was quantitated above the calibration range.
JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
B = The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
< = Compound was not detected at the listed quantitation limit.
U = Undetected.
R = The sample results were rejected.
-- = Sample results are not available. (See Note 9.)

ARCADIS

Attachment B

Validated Analytical Laboratory Report

ARCADIS

Infrastructure · Water · Environment · Buildings

Imagine the result

McKesson Bear Street

Data Usability Summary Report (DUSR)

SYRACUSE, NEW YORK

Volatile and Semivolatile Organic Compounds
(VOCs and SVOCs) and Methanol Analyses

SDG #s: 460-32903, 460-32906, and 460-32958

Analyses Performed By:
TestAmerica Laboratories
Edison, New York

Report #: 15153R
Review Level: Tier III
Project: B0026003.0000.00190

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) # 460-32903, 460-32906, and 460-32958 for samples collected in association with the McKesson Bear Street site in Syracuse, New York. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

SDG	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
						VOC	SVOC	PCB	MET	MISC
460-32903	MW-18	460-32903-1	Water	10/25/11		X	X			X
	MW-29	460-32903-2	Water	10/25/11		X	X			
	MW-30	460-32903-3	Water	10/25/11		X	X			
	MW-17R	460-32903-4	Water	10/25/11		X	X			X
	TB-102511-1	460-32903-5	Water	10/25/11		X				
	MW-9S	460-32903-6	Water	10/25/11		X	X			X
	TW-01	460-32903-7	Water	10/25/11		X	X			X
	MW-32	460-32903-8	Water	10/25/11		X	X			X
	MW-31	460-32903-9	Water	10/25/11		X	X			X
460-32906	MW-23S	460-32906-1	Water	10/26/11		X	X			X
	MW-23I	460-32906-2	Water	10/26/11		X	X			X
	MW-28	460-32906-3	Water	10/26/11		X	X			X
	MW-27	460-32906-4	Water	10/26/11		X	X			
	MW-8SR	460-32906-5	Water	10/26/11		X	X			
	DUP-102611-01	460-32906-6	Water	10/26/11	MW-8SR	X	X			
	MW-34	460-32906-7	Water	10/26/11		X	X			X
	MW-35	460-32906-8	Water	10/26/11		X	X			X
	MW-33	460-32906-9	Water	10/26/11		X	X			
	MW-36R	460-32906-10	Water	10/26/11		X	X			
	TB-102611-01	460-32906-11	Water	10/26/11		X				
460-32958	MW-3S	460-32958-1	Water	10/27/11		X	X			
	TW-02RRR	460-32958-2	Water	10/27/11		X	X			X
	DUP-102711-01	460-32958-3	Water	10/27/11	TW-02RRR	X	X			X
	TRIP BLANK	460-32958-4	Water	10/27/11		X				

Note: Miscellaneous analysis includes methanol. Sample locations MW-30 and MW-35 were used in the MS/MSD analyses.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8015B, 8260B, and 8270C as referenced in NYSDEC-ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999 and USEPA Region II SOPs associated with USEPA SW-846 Validating Volatile Organic Compounds by GC/MS SW-846 Method 8260B (SOP HW-24 Revision 2, October 2006) and Validating Semivolatile Organic Compounds by GC/MS SW-846 Method 8270D (SOP HW-22 Revision 3, October 2006).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected as unusable. The compound may or may not be present in the sample.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260B	Water	14 days from collection to analysis	Cool to 4±2 °C; pH < 2 with HCl
	Soil	48 hours from collection to extraction and 14 days from collection to analysis	Cool to 4±2 °C

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks, trip blanks, and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure sample storage contamination. Rinse blanks also measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Target compounds were detected in the associated QA blanks; however, the associated sample results were non-detect. Therefore, qualification of the sample results was not required.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

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

4.1 Initial Calibration (ICV)

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99, and a RRF value greater than control limit (0.05).

4.2 Continuing Calibration (CCV)

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compounds	Criteria
MW-18 MW-29 MW-30 MW-17R TB-102511-1 MW-9S TW-01 MW-32 MW-31	CCV %D	Acetone	%D > 20% (increase in sensitivity)
		o-Xylene	%D > 20% (decrease in sensitivity)
MW-23S MW-23I MW-28 MW-27 MW-8SR DUP-102611-01 MW-34 MW-35 MW-33 MW-36R TB-102611-01	CCV %D	Acetone	%D > 20% (increase in sensitivity)

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF < 0.05	Non-detect	R
		Detect	J
	RRF < 0.01[1]	Non-detect	R
		Detect	J
	RRF > 0.05 or RRF > 0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient < 0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D > 20% (increase in sensitivity)	Non-detect	No Action
		Detect	J

Initial/Continuing	Criteria	Sample Result	Qualification
	%D > 20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

[1] RRF of 0.01 only applies to typically poor responding compounds (e.g. ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within the control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC analysis exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard area counts were within the control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The spiked compounds used in the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD spiking concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

The MS/MSD exhibited acceptable recoveries and RPDs between the MS and MSD results.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS analysis must exhibit recoveries within the laboratory-established acceptance limits.

All compounds associated with the LCS analyses exhibited recoveries within the control limits.

9. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the

RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the reporting limit (RL), a control limit for the difference between the results of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results (in µg/L) for the field duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compounds	Sample Result	Duplicate Result	RPD
MW-8SR / DUP-102611-01	Benzene	1.9	2	5.1 %
	Ethylbenzene	2	2.1	4.9 %
	Toluene	1.3	1.3	0.0 %
	Xylenes, Total	14	15	6.9 %
TW-02RRR / DUP-102711-01	Benzene	1.2	1.1	8.7 %
	Ethylbenzene	0.67 J	0.69 J	AC
	Toluene	0.53 J	0.48 J	AC
	Xylenes, Total	1.5 J	1.4 J	AC

AC Acceptable
J Estimated (result is < RL)

The field duplicate sample results are acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment/Field blanks					X
C. Trip blanks		X	X		
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision RPD		X		X	
Field/Laboratory Duplicate Sample RPD		X		X	
Surrogate Spike %R		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Quantitation transcriptions/calculations		X		X	
E. Reporting limits adjusted for sample dilutions		X		X	

%R Percent recovery
RPD Relative percent difference
%RSD Relative standard deviation
%D Percent difference

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270C	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to 4±2 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to 4±2 °C

All samples were extracted and analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Target compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution are acceptable.

4. Calibration

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

4.1 Initial Calibration Verification (ICV)

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration Verification (CCV)

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits, and that all SVOC surrogate recoveries be greater than ten percent.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Location	Surrogate	Recovery
MW-18	Phenol-d_5	> UL
	2-Fluorophenol 2,4,6-Tribromophenol Nitrobenzene-d_5 2-Fluorobiphenyl Terphenyl-d_{14}	Acceptable

UL Upper control limit

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of surrogate deviations, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
D - Surrogates diluted below the calibration curve	Non-detect	J[1]
	Detect	

[1] A more concentrated analysis was not performed with surrogate compounds within the calibration range; therefore, no determination of extraction efficiency could be made.

No sample results required qualification.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC analysis exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within the control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established or analytical method-referenced acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

The MS/MSD exhibited acceptable recoveries and RPDs between the MS and MSD.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS analysis must exhibit recoveries within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

9. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the reporting limit (RL), a control limit for the difference between the results of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results (in µg/L) for the field duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compounds	Sample Result	Duplicate Result	RPD
MW-8SR / DUP-102611-01	n,n'-Dimethylaniline	2.6	1.0 U	AC
TW-02RRR / DUP-102711-01	n,n'-Dimethylaniline	5.5	6.2	12.0 %
	Aniline	1300	1500	14.3 %

U Not detected
AC Acceptable

The field duplicate sample results are acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compounds that exhibited concentrations greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
TW-02RRR	Aniline	--	1300	1300 D
DUP-102711-01	Aniline	--	1500	1500 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result < the calibration range	DJ
Diluted sample result > the calibration range	EDJ
Original sample result > the calibration range	EJ

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270C	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment/Field Blanks					X
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD RPD		X		X	
Field/Laboratory Duplicate Sample RPD		X		X	
Surrogate Spike %R		X	X		
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System Performance and Column Resolution		X		X	
Initial Calibration %RSDs		X		X	
Continuing Calibration RRFs		X		X	
Continuing Calibration %Ds		X		X	
Instrument Tune and Performance Check		X		X	
Ion Abundance Criteria for Each Instrument Used		X		X	
Internal Standards		X		X	
Compound Identification and Quantitation					
A. Reconstructed Ion Chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of Sample Compounds Within the Established RT Windows		X		X	
D. Quantitation transcriptions/calculations		X		X	
E. Reporting Limits Adjusted for Sample Dilutions		X		X	

%R Percent Recovery
RPD Relative Percent Difference
%RSD Relative Standard Deviation
%D Percent Difference

METHANOL ANALYSIS

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Methanol SW-846 8015B	Soil	14 days from collection to analysis	Cool to 4±2 °C
	Water	14 days from collection to analysis	Cool to 4±2 °C

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected analyte in an associated blank is calculated for QA blanks containing concentrations greater than the reporting limit (RL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Methanol was not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

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

4.1 Initial Calibration (ICV)

A maximum RSD of 20% or a correlation coefficient of greater than 0.99 is allowed.

4.2 Continuing Calibration (CCV)

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (15%).

All calibration criteria were within the control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. The analysis requires surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
MW-32 MW-23I	1-Pentanol	> UL

Upper control limit (UL)

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
D – Surrogates diluted below the calibration curve	Non-detect	J[1]
	Detect	

Note: [1] - A more concentrated analysis was not performed with surrogate compounds within the calibration range therefore no determination of extraction efficiency could be made.

No sample results required qualification.

6. Matrix Spike/Matrix Spike Duplicate Sample (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The spiked analytes used in the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on sample locations where the analyte concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

The MS/MSD exhibited acceptable recoveries and RPDs between the MS and MSD.

7. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS analysis must exhibit recoveries within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

8. Field Duplicate Sample Analysis

The field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the reporting limit (RL), a control limit for the difference between the results of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results (in µg/L) for the field duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compounds	Sample Result	Duplicate Result	RPD
TW-02RRR / DUP-102711-01	Methanol	500 U	500 U	AC

U Not detected
AC Acceptable

The field duplicate sample results are acceptable.

9. Analyte Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows.

All identified analytes met the specified criteria.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METHANOL

Methanol: SW-846 8015B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/FID)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (Units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment Blanks					X
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD RPD		X		X	
Field/Laboratory Duplicate Sample RPD		X		X	
Surrogate Spike %R		X		X	
Dilution Factor		X		X	
Moisture Content					
Tier III Validation					
Initial Calibration %RSDs		X		X	
Continuing Calibration %Ds		X		X	
System Performance and Column Resolution		X		X	
Compound Identification and Quantitation					
A. Quantitation Reports		X		X	
B. RT of Sample Compounds Within Established RT Windows		X		X	
C. Pattern Identification		X		X	
D. Transcription/Calculation Errors Present		X		X	
E. Reporting Limits adjusted for Sample Dilutions		X		X	

%R Percent Recovery
RPD Relative Percent Difference
%RSD Relative Standard Deviation
%D Percent Difference

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
460-32903	10/25/11	SW846	MW-18	Water	No	Yes	--	--	Yes	VOC: CCV response
	10/25/11	SW846	MW-29	Water	No	Yes	--	--	--	VOC: CCV response
	10/25/11	SW846	MW-30	Water	No	Yes	--	--	--	VOC: CCV response
	10/25/11	SW846	MW-17R	Water	No	Yes	--	--	Yes	VOC: CCV response
	10/25/11	SW846	TB-102511-1	Water	No	--	--	--	--	VOC: CCV response
	10/25/11	SW846	MW-9S	Water	No	Yes	--	--	Yes	VOC: CCV response
	10/25/11	SW846	TW-01	Water	No	Yes	--	--	Yes	VOC: CCV response
	10/25/11	SW846	MW-32	Water	No	Yes	--	--	Yes	VOC: CCV response
	10/25/11	SW846	MW-31	Water	No	Yes	--	--	Yes	VOC: CCV response
460-32906	10/26/11	SW846	MW-23S	Water	Yes	Yes	--	--	Yes	
	10/26/11	SW846	MW-23I	Water	Yes	Yes	--	--	Yes	
	10/26/11	SW846	MW-28	Water	Yes	Yes	--	--	Yes	
	10/26/11	SW846	MW-27	Water	Yes	Yes	--	--	--	
	10/26/11	SW846	MW-8SR	Water	Yes	Yes	--	--	--	
	10/26/11	SW846	DUP-102611-01	Water	Yes	Yes	--	--	--	
	10/26/11	SW846	MW-34	Water	Yes	Yes	--	--	Yes	
	10/26/11	SW846	MW-35	Water	Yes	Yes	--	--	Yes	
	10/26/11	SW846	MW-33	Water	Yes	Yes	--	--	--	
	10/26/11	SW846	MW-36R	Water	Yes	Yes	--	--	--	
	10/26/11	SW846	TB-102611-01	Water	Yes	--	--	--	--	
460-32958	10/27/11	SW846	MW-3S	Water	Yes	Yes	--	--	--	
	10/27/11	SW846	TW-02RRR	Water	Yes	No	--	--	Yes	SVOC: Dilution
	10/27/11	SW846	DUP-102711-01	Water	Yes	No	--	--	Yes	SVOC: Dilution
	10/27/11	SW846	TRIP BLANK	Water	Yes	--	--	--	--	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable

CHAIN OF CUSTODY /
CORRECTED SAMPLE ANALYSIS DATA SHEETS

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

32903

TAL-4124 (1007)

11/09/2011

Client	Project Manager	Date	Chain of Custody Number
ARCADIS	Dawn Penniman	10/25/2011	198283
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
6723 TOWPATH Rd.	~~315-671-~~ 315-446-9120		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	**Analysis (Attach list if more space is needed)**
Syracuse / NY / 13214	Nathan Smith	Grace Chang	
Project Name and Location (State)	**Carrier/Waybill Number**		
McKesson			
Contract/Purchase Order/Quote No.			
60026003.0000.00010			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8270C	8260B	8015B	MS/MSD	Special Instructions/ Conditions of Receipt
MW-1B	10/25/11	1440		X			5			3			2	3	3		1
MW-29		0950		X			2			3			2	3	-		2
MW-30		1105		X			6			3 NPS			6	9	-	X	3
MW-17R		1330		X			5			3			2	3	3		4
TB-102511-1		—		X			-			3			-	3	-		5
MW-9S		1110		X			5			3			2	3	3		6
TW-01		1230		X			5			3			2	3	3		7
MW-32		1430		X			5			3			2	3	3		8
MW-31		1530		X			5			3			2	3	3		9

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Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)
MS/MSD From MW-30 (as noted on sample labels)

1. Relinquished By	Date	Time	1. Received By	Date	Time
(ARCADIS)	10/25/11	1630	Energy Lab, Syr	10.25.11	16:30
2. Relinquished By	**Date**	**Time**	**2. Received By**	**Date**	**Time**
Energy Lab	10.25.11	19:00		10/26/11	10:15
3. Relinquished By	**Date**	**Time**	**3. Received By**	**Date**	**Time**

Comments
1.3 / 4.0 / 3.6 / 4.5 / 5.6 / 1.5 / 1.60 C.O.C # 300236 / 300236 / 300261 / 300252 / 300237 / 300261

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: MW-18

Lab Sample ID: 460-32903-1
Client Matrix: Water

Date Sampled: 10/25/2011 1440
Date Received: 10/26/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91229	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14030.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/30/2011 1604			Final Weight/Volume:	5 mL
Prep Date:	10/30/2011 1604				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.0	U	0.13	1.0
Toluene	0.23	J	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U J	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	113		70 - 122
Bromofluorobenzene	88		69 - 135
Toluene-d8 (Surr)	90		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: **MW-29**

Lab Sample ID: 460-32903-2
Client Matrix: Water

Date Sampled: 10/25/2011 0950
Date Received: 10/26/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91229	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14031.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/30/2011 1627			Final Weight/Volume:	5 mL
Prep Date:	10/30/2011 1627				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.0	U	0.13	1.0
Toluene	0.22	J	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U J	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		70 - 122
Bromofluorobenzene	86		69 - 135
Toluene-d8 (Surr)	93		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: **MW-30**

Lab Sample ID: 460-32903-3
Client Matrix: Water

Date Sampled: 10/25/2011 1105
Date Received: 10/26/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91229	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14024.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/30/2011 1346			Final Weight/Volume:	5 mL
Prep Date:	10/30/2011 1346				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.0	U	0.13	1.0
Toluene	0.18	J	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U J	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111		70 - 122
Bromofluorobenzene	87		69 - 135
Toluene-d8 (Surr)	93		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: **MW-17R**

Lab Sample ID: 460-32903-4
Client Matrix: Water

Date Sampled: 10/25/2011 1330
Date Received: 10/26/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91229	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14032.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/30/2011 1650			Final Weight/Volume:	5 mL
Prep Date:	10/30/2011 1650				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.0	U	0.13	1.0
Toluene	0.19	J	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U J	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		70 - 122
Bromofluorobenzene	87		69 - 135
Toluene-d8 (Surr)	92		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: TB-102511-1

Lab Sample ID: 460-32903-5
Client Matrix: Water

Date Sampled: 10/25/2011 0000
Date Received: 10/26/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91229	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14029.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/30/2011 1541			Final Weight/Volume:	5 mL
Prep Date:	10/30/2011 1541				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.0	U	0.13	1.0
Toluene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U J	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 122
Bromofluorobenzene	89		69 - 135
Toluene-d8 (Surr)	94		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: **MW-9S**

Lab Sample ID: 460-32903-6
Client Matrix: Water

Date Sampled: 10/25/2011 1110
Date Received: 10/26/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91229	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14033.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/30/2011 1714			Final Weight/Volume:	5 mL
Prep Date:	10/30/2011 1714				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.2		0.13	1.0
Toluene	1.8		0.090	1.0
Ethylbenzene	4.2		0.25	1.0
Xylenes, Total	41	J	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 122
Bromofluorobenzene	92		69 - 135
Toluene-d8 (Surr)	102		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: TW-01

Lab Sample ID: 460-32903-7
Client Matrix: Water

Date Sampled: 10/25/2011 1230
Date Received: 10/26/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91229	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14034.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/30/2011 1737			Final Weight/Volume:	5 mL
Prep Date:	10/30/2011 1737				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.0	U	0.13	1.0
Toluene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U J	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		70 - 122
Bromofluorobenzene	92		69 - 135
Toluene-d8 (Surr)	97		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: MW-32

Lab Sample ID: 460-32903-8
Client Matrix: Water

Date Sampled: 10/25/2011 1430
Date Received: 10/26/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91229	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14035.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/30/2011 1800			Final Weight/Volume:	5 mL
Prep Date:	10/30/2011 1800				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.0	U	0.13	1.0
Toluene	0.19	J	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U J	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 122
Bromofluorobenzene	92		69 - 135
Toluene-d8 (Surr)	97		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: **MW-31**

Lab Sample ID: 460-32903-9
Client Matrix: Water

Date Sampled: 10/25/2011 1530
Date Received: 10/26/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91229	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14036.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/30/2011 1823			Final Weight/Volume:	5 mL
Prep Date:	10/30/2011 1823				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	5.7		0.13	1.0
Toluene	0.62	J	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	1.5	J	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 122
Bromofluorobenzene	93		69 - 135
Toluene-d8 (Surr)	99		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: MW-18

Lab Sample ID: 460-32903-1
Client Matrix: Water

Date Sampled: 10/25/2011 1440
Date Received: 10/26/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91318	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91104	Lab File ID:	x19108.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	10/30/2011 1324			Final Weight/Volume:	2.00 mL
Prep Date:	10/28/2011 1055			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.0	U	1.8	5.0
n,n'-Dimethylaniline	1.0	U	0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	64		53 - 108
2-Fluorophenol	64		10 - 65
Nitrobenzene-d5	71		56 - 112
Phenol-d5	56	X	10 - 48
Terphenyl-d14	88		50 - 122
2,4,6-Tribromophenol	74		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: MW-29

Lab Sample ID: 460-32903-2
Client Matrix: Water

Date Sampled: 10/25/2011 0950
Date Received: 10/26/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91440	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91202	Lab File ID:	x19152.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	10/31/2011 0826			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0744			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.0	U	1.8	5.0
n,n'-Dimethylaniline	0.22	J	0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	82		53 - 108
2-Fluorophenol	34		10 - 65
Nitrobenzene-d5	76		56 - 112
Phenol-d5	18		10 - 48
Terphenyl-d14	98		50 - 122
2,4,6-Tribromophenol	87		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: MW-30

Lab Sample ID: 460-32903-3
Client Matrix: Water

Date Sampled: 10/25/2011 1105
Date Received: 10/26/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91440	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91202	Lab File ID:	x19151.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	10/31/2011 0803			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0744			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.0	U	1.8	5.0
n,n'-Dimethylaniline	1.0	U	0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	77		53 - 108
2-Fluorophenol	32		10 - 65
Nitrobenzene-d5	72		56 - 112
Phenol-d5	18		10 - 48
Terphenyl-d14	92		50 - 122
2,4,6-Tribromophenol	78		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: MW-17R

Lab Sample ID: 460-32903-4
Client Matrix: Water

Date Sampled: 10/25/2011 1330
Date Received: 10/26/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91440	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91202	Lab File ID:	x19153.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	10/31/2011 0849			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0744			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.0	U	1.8	5.0
n,n'-Dimethylaniline	1.0	U	0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	72		53 - 108
2-Fluorophenol	28		10 - 65
Nitrobenzene-d5	67		56 - 112
Phenol-d5	15		10 - 48
Terphenyl-d14	89		50 - 122
2,4,6-Tribromophenol	75		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: **MW-9S**

Lab Sample ID: 460-32903-6
Client Matrix: Water

Date Sampled: 10/25/2011 1110
Date Received: 10/26/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91440	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91202	Lab File ID:	x19154.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	10/31/2011 0913			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0744			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.0	U	1.8	5.0
n,n'-Dimethylaniline	7.6		0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	86		53 - 108
2-Fluorophenol	31		10 - 65
Nitrobenzene-d5	81		56 - 112
Phenol-d5	17		10 - 48
Terphenyl-d14	100		50 - 122
2,4,6-Tribromophenol	88		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: TW-01

Lab Sample ID: 460-32903-7
Client Matrix: Water

Date Sampled: 10/25/2011 1230
Date Received: 10/26/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91440	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91202	Lab File ID:	x19155.d
Dilution:	1.0			Initial Weight/Volume:	900 mL
Analysis Date:	10/31/2011 0936			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0744			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.6	U	2.0	5.6
n,n'-Dimethylaniline	1.6		0.23	1.1

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	85		53 - 108
2-Fluorophenol	39		10 - 65
Nitrobenzene-d5	83		56 - 112
Phenol-d5	21		10 - 48
Terphenyl-d14	95		50 - 122
2,4,6-Tribromophenol	85		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: **MW-32**

Lab Sample ID: 460-32903-8
Client Matrix: Water

Date Sampled: 10/25/2011 1430
Date Received: 10/26/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91440	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91202	Lab File ID:	x19156.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	10/31/2011 0959			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0744			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.0	U	1.8	5.0
n,n'-Dimethylaniline	1.5		0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	75		53 - 108
2-Fluorophenol	31		10 - 65
Nitrobenzene-d5	72		56 - 112
Phenol-d5	16		10 - 48
Terphenyl-d14	80		50 - 122
2,4,6-Tribromophenol	70		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: MW-31

Lab Sample ID: 460-32903-9
Client Matrix: Water

Date Sampled: 10/25/2011 1530
Date Received: 10/26/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91440	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91202	Lab File ID:	x19157.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	10/31/2011 1022			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0744			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.0	U	1.8	5.0
n,n'-Dimethylaniline	3.5		0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	84		53 - 108
2-Fluorophenol	37		10 - 65
Nitrobenzene-d5	82		56 - 112
Phenol-d5	20		10 - 48
Terphenyl-d14	103		50 - 122
2,4,6-Tribromophenol	85		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: **MW-18**

Lab Sample ID: 460-32903-1
Client Matrix: Water

Date Sampled: 10/25/2011 1440
Date Received: 10/26/2011 1015

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-91249	Instrument ID:	BNAGC5
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/29/2011 0310			Injection Volume:	1 uL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Methanol	500	U	500	500

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Pentanol	116		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: **MW-17R**

Lab Sample ID: 460-32903-4
Client Matrix: Water

Date Sampled: 10/25/2011 1330
Date Received: 10/26/2011 1015

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-91249	Instrument ID:	BNAGC5
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/29/2011 0316			Injection Volume:	1 uL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Methanol	500	U	500	500

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Pentanol	113		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: **MW-9S**

Lab Sample ID: 460-32903-6
Client Matrix: Water

Date Sampled: 10/25/2011 1110
Date Received: 10/26/2011 1015

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-91249	Instrument ID:	BNAGC5
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/29/2011 0323			Injection Volume:	1 uL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Methanol	500	U	500	500

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Pentanol	119		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: **TW-01**

Lab Sample ID: 460-32903-7
Client Matrix: Water

Date Sampled: 10/25/2011 1230
Date Received: 10/26/2011 1015

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-91249	Instrument ID:	BNAGC5
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/29/2011 0329			Injection Volume:	1 uL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Methanol	500	U	500	500

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Pentanol	120		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: MW-32

Lab Sample ID: 460-32903-8
Client Matrix: Water

Date Sampled: 10/25/2011 1430
Date Received: 10/26/2011 1015

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-91249	Instrument ID:	BNAGC5
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/29/2011 0336			Injection Volume:	1 uL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Methanol	500	U	500	500

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Pentanol	136	X	47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-32903-1

Client Sample ID: **MW-31**

Lab Sample ID: 460-32903-9
Client Matrix: Water

Date Sampled: 10/25/2011 1530
Date Received: 10/26/2011 1015

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-91249	Instrument ID:	BNAGC5
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/29/2011 0342			Injection Volume:	1 uL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Methanol	500	U	500	500

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Pentanol	111		47 - 132

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

32906

11/08/2011

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
ARCADIS	DAWN PENNIMAN	10/26/11	126670
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
6723 TOWPATH ROAD	315 - 446-9120		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
SYRACUSE NY 13214	Nathan Smith	Grace Chang	
Project Name and Location (State)	**Carrier/Waybill Number**		
MICROSON BEAR ST.			
Contract/Purchase Order/Quote No.			
60026003.0000. ~~00190~~ 00010			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260S	8015S	8270C	MS/MSD	Special Instructions/ Conditions of Receipt
MW-23S	10/26/11	1620		X			5			3			X	X	X		1
MW-23I		1500					5			3			X	X	X		2
MW-28		1320					5			3			X	X	X		3
~~DUP OF MW-05R MS~~		~~1140~~					4			6			X		X		—
MW-27		1010					2			3			X		X		4
MW-05R		1140					2			3			X		X		5
DUP-102611-01		—					2			3			X		X		6
MW-34		1020					5			3			X	X	X		7
MW-35		1210					15			9			X	X	X	X	8 *
MW-33		1435					2			3			X		X		9
MW-36R		1625					2			3			X		X		10
TB-102611-01	10/26/11	—								3			X				11

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)
MS/MSD from MW-35 *

1. Relinquished By: Nathan P. Smith	Date 10/26/11	Time 1737	1. Received By: [signature] The Syr	Date 10-26-11	Time 17:37
2. Relinquished By: [signature] The Syr	Date 10-26-11	Time 1830	2. Received By: [signature]	Date	Time
3. Relinquished By:	Date	Time	3. Received By: [signature]	Date 10/27/11	Time 10:15

Comments
CS # 300279 | 300278 | 300268 | 300277 — 4.0 | 3.6 | 6.7 | 5.0 °C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-23S**

Lab Sample ID: 460-32906-1
Client Matrix: Water

Date Sampled: 10/26/2011 1620
Date Received: 10/27/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91293	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14064.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/31/2011 1824			Final Weight/Volume:	5 mL
Prep Date:	10/31/2011 1824				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.0	U	0.13	1.0
Toluene	0.31	J	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111		70 - 122
Bromofluorobenzene	95		69 - 135
Toluene-d8 (Surr)	104		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-23I**

Lab Sample ID: 460-32906-2
Client Matrix: Water

Date Sampled: 10/26/2011 1500
Date Received: 10/27/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91293	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14057.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/31/2011 1543			Final Weight/Volume:	5 mL
Prep Date:	10/31/2011 1543				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.0	U	0.13	1.0
Toluene	0.29	J	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	122		70 - 122
Bromofluorobenzene	98		69 - 135
Toluene-d8 (Surr)	104		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-28**

Lab Sample ID: 460-32906-3
Client Matrix: Water

Date Sampled: 10/26/2011 1320
Date Received: 10/27/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91293	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14058.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/31/2011 1605			Final Weight/Volume:	5 mL
Prep Date:	10/31/2011 1605				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.8		0.13	1.0
Toluene	0.38	J	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		70 - 122
Bromofluorobenzene	87		69 - 135
Toluene-d8 (Surr)	94		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-27**

Lab Sample ID: 460-32906-4
Client Matrix: Water

Date Sampled: 10/26/2011 1010
Date Received: 10/27/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91293	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14059.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/31/2011 1629			Final Weight/Volume:	5 mL
Prep Date:	10/31/2011 1629				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	2.1		0.13	1.0
Toluene	1.3		0.090	1.0
Ethylbenzene	2.2		0.25	1.0
Xylenes, Total	3.1		0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 122
Bromofluorobenzene	90		69 - 135
Toluene-d8 (Surr)	91		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-8SR**

Lab Sample ID: 460-32906-5
Client Matrix: Water

Date Sampled: 10/26/2011 1140
Date Received: 10/27/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91293	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14060.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/31/2011 1652			Final Weight/Volume:	5 mL
Prep Date:	10/31/2011 1652				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.9		0.13	1.0
Toluene	1.3		0.090	1.0
Ethylbenzene	2.0		0.25	1.0
Xylenes, Total	14		0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 122
Bromofluorobenzene	91		69 - 135
Toluene-d8 (Surr)	89		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **DUP-102611-01**

Lab Sample ID: 460-32906-6
Client Matrix: Water

Date Sampled: 10/26/2011 0000
Date Received: 10/27/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91293	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14061.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/31/2011 1715			Final Weight/Volume:	5 mL
Prep Date:	10/31/2011 1715				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	2.0		0.13	1.0
Toluene	1.3		0.090	1.0
Ethylbenzene	2.1		0.25	1.0
Xylenes, Total	15		0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 122
Bromofluorobenzene	92		69 - 135
Toluene-d8 (Surr)	91		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-34**

Lab Sample ID: 460-32906-7
Client Matrix: Water

Date Sampled: 10/26/2011 1020
Date Received: 10/27/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91293	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14062.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/31/2011 1738			Final Weight/Volume:	5 mL
Prep Date:	10/31/2011 1738				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	350		2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.2		0.13	1.0
Toluene	0.71	J	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	0.90	J	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 122
Bromofluorobenzene	89		69 - 135
Toluene-d8 (Surr)	94		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-35**

Lab Sample ID: 460-32906-8
Client Matrix: Water

Date Sampled: 10/26/2011 1210
Date Received: 10/27/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
Prep Method: 5030B
Dilution: 1.0
Analysis Date: 10/31/2011 1520
Prep Date: 10/31/2011 1520

Analysis Batch: 460-91293
Prep Batch: N/A

Instrument ID: VOAMS4
Lab File ID: d14056.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.0	U	0.13	1.0
Toluene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		70 - 122
Bromofluorobenzene	89		69 - 135
Toluene-d8 (Surr)	95		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-33**

Lab Sample ID: 460-32906-9
Client Matrix: Water

Date Sampled: 10/26/2011 1435
Date Received: 10/27/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91293	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14063.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/31/2011 1801			Final Weight/Volume:	5 mL
Prep Date:	10/31/2011 1801				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	0.58	J	0.13	1.0
Toluene	0.12	J	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 122
Bromofluorobenzene	89		69 - 135
Toluene-d8 (Surr)	94		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-36R**

Lab Sample ID: 460-32906-10
Client Matrix: Water

Date Sampled: 10/26/2011 1625
Date Received: 10/27/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91293	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14065.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/31/2011 1847			Final Weight/Volume:	5 mL
Prep Date:	10/31/2011 1847				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.8		0.13	1.0
Toluene	0.66	J	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	1.4	J	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 122
Bromofluorobenzene	88		69 - 135
Toluene-d8 (Surr)	91		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **TB-102611-01**

Lab Sample ID: 460-32906-11
Client Matrix: Water

Date Sampled: 10/26/2011 0000
Date Received: 10/27/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91293	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14054.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/31/2011 1433			Final Weight/Volume:	5 mL
Prep Date:	10/31/2011 1433				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.26	J	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.0	U	0.13	1.0
Toluene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 122
Bromofluorobenzene	88		69 - 135
Toluene-d8 (Surr)	94		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-23S**

Lab Sample ID: 460-32906-1
Client Matrix: Water

Date Sampled: 10/26/2011 1620
Date Received: 10/27/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91465	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91203	Lab File ID:	x19204.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	11/01/2011 1514			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0750			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.0	U	1.8	5.0
n,n'-Dimethylaniline	1.0	U	0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	82		53 - 108
2-Fluorophenol	33		10 - 65
Nitrobenzene-d5	80		56 - 112
Phenol-d5	18		10 - 48
Terphenyl-d14	107		50 - 122
2,4,6-Tribromophenol	86		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-23I**

Lab Sample ID: 460-32906-2
Client Matrix: Water

Date Sampled: 10/26/2011 1500
Date Received: 10/27/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91465	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91203	Lab File ID:	x19205.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	11/01/2011 1537			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0750			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.0	U	1.8	5.0
n,n'-Dimethylaniline	1.0	U	0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	85		53 - 108
2-Fluorophenol	46		10 - 65
Nitrobenzene-d5	84		56 - 112
Phenol-d5	29		10 - 48
Terphenyl-d14	103		50 - 122
2,4,6-Tribromophenol	93		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-28**

Lab Sample ID: 460-32906-3
Client Matrix: Water

Date Sampled: 10/26/2011 1320
Date Received: 10/27/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91465	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91203	Lab File ID:	x19206.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	11/01/2011 1600			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0750			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.0	U	1.8	5.0
n,n'-Dimethylaniline	1.0	U	0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	83		53 - 108
2-Fluorophenol	31		10 - 65
Nitrobenzene-d5	76		56 - 112
Phenol-d5	17		10 - 48
Terphenyl-d14	97		50 - 122
2,4,6-Tribromophenol	79		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-27**

Lab Sample ID: 460-32906-4
Client Matrix: Water

Date Sampled: 10/26/2011 1010
Date Received: 10/27/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91465	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91203	Lab File ID:	x19207.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	11/01/2011 1624			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0750			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	36		1.8	5.0
n,n'-Dimethylaniline	2.7		0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	91		53 - 108
2-Fluorophenol	36		10 - 65
Nitrobenzene-d5	81		56 - 112
Phenol-d5	19		10 - 48
Terphenyl-d14	98		50 - 122
2,4,6-Tribromophenol	86		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-8SR**

Lab Sample ID: 460-32906-5
Client Matrix: Water

Date Sampled: 10/26/2011 1140
Date Received: 10/27/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91465	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91203	Lab File ID:	x19208.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	11/01/2011 1646			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0750			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.0	U	1.8	5.0
n,n'-Dimethylaniline	2.6		0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	91		53 - 108
2-Fluorophenol	36		10 - 65
Nitrobenzene-d5	82		56 - 112
Phenol-d5	18		10 - 48
Terphenyl-d14	100		50 - 122
2,4,6-Tribromophenol	77		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **DUP-102611-01**

Lab Sample ID: 460-32906-6
Client Matrix: Water

Date Sampled: 10/26/2011 0000
Date Received: 10/27/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91465	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91203	Lab File ID:	x19209.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	11/01/2011 1710			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 1120			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.0	U	1.8	5.0
n,n'-Dimethylaniline	1.0	U	0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	91		53 - 108
2-Fluorophenol	33		10 - 65
Nitrobenzene-d5	81		56 - 112
Phenol-d5	21		10 - 48
Terphenyl-d14	102		50 - 122
2,4,6-Tribromophenol	76		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-34**

Lab Sample ID: 460-32906-7
Client Matrix: Water

Date Sampled: 10/26/2011 1020
Date Received: 10/27/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91465	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91203	Lab File ID:	x19210.d
Dilution:	1.0			Initial Weight/Volume:	900 mL
Analysis Date:	11/01/2011 1733			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0750			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.6	U	2.0	5.6
n,n'-Dimethylaniline	2.5		0.23	1.1

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	89		53 - 108
2-Fluorophenol	37		10 - 65
Nitrobenzene-d5	79		56 - 112
Phenol-d5	21		10 - 48
Terphenyl-d14	100		50 - 122
2,4,6-Tribromophenol	74		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-35**

Lab Sample ID: 460-32906-8
Client Matrix: Water

Date Sampled: 10/26/2011 1210
Date Received: 10/27/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91465	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91203	Lab File ID:	x19211.d
Dilution:	1.0			Initial Weight/Volume:	980 mL
Analysis Date:	11/01/2011 1756			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0750			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.1	U	1.8	5.1
n,n'-Dimethylaniline	1.0	U	0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	81		53 - 108
2-Fluorophenol	35		10 - 65
Nitrobenzene-d5	75		56 - 112
Phenol-d5	19		10 - 48
Terphenyl-d14	102		50 - 122
2,4,6-Tribromophenol	83		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-33**

Lab Sample ID: 460-32906-9
Client Matrix: Water

Date Sampled: 10/26/2011 1435
Date Received: 10/27/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91465	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91203	Lab File ID:	x19214.d
Dilution:	1.0			Initial Weight/Volume:	950 mL
Analysis Date:	11/01/2011 1906			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0750			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.3	U	1.9	5.3
n,n'-Dimethylaniline	1.9		0.22	1.1

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	87		53 - 108
2-Fluorophenol	35		10 - 65
Nitrobenzene-d5	77		56 - 112
Phenol-d5	18		10 - 48
Terphenyl-d14	96		50 - 122
2,4,6-Tribromophenol	82		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-36R**

Lab Sample ID: 460-32906-10
Client Matrix: Water

Date Sampled: 10/26/2011 1625
Date Received: 10/27/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91465	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91203	Lab File ID:	x19215.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	11/01/2011 1929			Final Weight/Volume:	2 mL
Prep Date:	10/29/2011 0750			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	92		1.8	5.0
n,n'-Dimethylaniline	3.6		0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	82		53 - 108
2-Fluorophenol	32		10 - 65
Nitrobenzene-d5	76		56 - 112
Phenol-d5	17		10 - 48
Terphenyl-d14	89		50 - 122
2,4,6-Tribromophenol	63		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-23S**

Lab Sample ID: 460-32906-1
Client Matrix: Water

Date Sampled: 10/26/2011 1620
Date Received: 10/27/2011 1015

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-91249	Instrument ID:	BNAGC5
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/29/2011 0407			Injection Volume:	1 uL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Methanol	500	U	500	500

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Pentanol	117		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: MW-23I

Lab Sample ID: 460-32906-2
Client Matrix: Water

Date Sampled: 10/26/2011 1500
Date Received: 10/27/2011 1015

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-91249	Instrument ID:	BNAGC5
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/29/2011 0414			Injection Volume:	1 uL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Methanol	500	U	500	500

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Pentanol	183	X	47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-28**

Lab Sample ID: 460-32906-3
Client Matrix: Water

Date Sampled: 10/26/2011 1320
Date Received: 10/27/2011 1015

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-91249	Instrument ID:	BNAGC5
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/29/2011 0348			Injection Volume:	1 uL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Methanol	500	U	500	500

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Pentanol	116		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-34**

Lab Sample ID: 460-32906-7
Client Matrix: Water

Date Sampled: 10/26/2011 1020
Date Received: 10/27/2011 1015

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-91249	Instrument ID:	BNAGC5
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/29/2011 0355			Injection Volume:	1 uL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Methanol	500	U	500	500

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Pentanol	103		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-32906-1

Client Sample ID: **MW-35**

Lab Sample ID: 460-32906-8
Client Matrix: Water

Date Sampled: 10/26/2011 1210
Date Received: 10/27/2011 1015

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-91249	Instrument ID:	BNAGC5
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/29/2011 0401			Injection Volume:	1 uL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Methanol	500	U	500	500

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Pentanol	108		47 - 132

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

32958

11/14/2011

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
ARCADIS	DAWN PENNIMAN	10/27/2011	126671

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page
6723 TOWPATH RD	315-446-9120		Page 1 of 1

City	State	Zip Code	Site Contact	Lab Contact
SYRACUSE	NY	13214	Nathan Smith	Grace Chang

Project Name and Location (State): McKesson Bear Street

Carrier/Waybill Number:

Contract/Purchase Order/Quote No.: B002600.3.0000-00010

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): 8260B	6010B	8270C	Special Instructions/ Conditions of Receipt
MW-35	10/27/11	1330		X			2			3			X	-	X	1
TW-02RRR	10/27/11	1500		X			5			3			X	X	X	2
DUP-102711-01	10/27/11	—		X			5			3			X	X	X	3
TRIP BLANK	10/27/11	—		X			—			3			X	-	-	4

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.	Nathan P. Smith	10/27/11	16:15	R English Sys	10/27/11	16:15
2.	R English	10/27/11	19:00	[illegible]	10/28/11	1:15
3.						

Comments

1.3° Ice C.O.C 300274

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Client: ARCADIS U.S. Inc

Job Number: 460-32958-1

Client Sample ID: MW-3S

Lab Sample ID: 460-32958-1
Client Matrix: Water

Date Sampled: 10/27/2011 1330
Date Received: 10/28/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91615	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14142.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	11/02/2011 2135			Final Weight/Volume:	5 mL
Prep Date:	11/02/2011 2135				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.0	U	0.13	1.0
Toluene	0.35	J	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116		70 - 122
Bromofluorobenzene	105		69 - 135
Toluene-d8 (Surr)	108		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32958-1

Client Sample ID: **TW-02RRR**

Lab Sample ID: 460-32958-2
Client Matrix: Water

Date Sampled: 10/27/2011 1500
Date Received: 10/28/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91615	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14143.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	11/02/2011 2159			Final Weight/Volume:	5 mL
Prep Date:	11/02/2011 2159				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.2		0.13	1.0
Toluene	0.53	J	0.090	1.0
Ethylbenzene	0.67	J	0.25	1.0
Xylenes, Total	1.5	J	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 122
Bromofluorobenzene	96		69 - 135
Toluene-d8 (Surr)	92		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32958-1

Client Sample ID: **Dup-102711-01**

Lab Sample ID: 460-32958-3
Client Matrix: Water

Date Sampled: 10/27/2011 0000
Date Received: 10/28/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91615	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14144.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	11/02/2011 2222			Final Weight/Volume:	5 mL
Prep Date:	11/02/2011 2222				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.1		0.13	1.0
Toluene	0.48	J	0.090	1.0
Ethylbenzene	0.69	J	0.25	1.0
Xylenes, Total	1.4	J	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 122
Bromofluorobenzene	95		69 - 135
Toluene-d8 (Surr)	94		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32958-1

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 460-32958-4
Client Matrix: Water

Date Sampled: 10/27/2011 0000
Date Received: 10/28/2011 1015

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-91615	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d14137.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	11/02/2011 1940			Final Weight/Volume:	5 mL
Prep Date:	11/02/2011 1940				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	1.0	U	0.19	1.0
Acetone	10	U	2.5	10
Trichloroethene	1.0	U	0.18	1.0
Benzene	1.0	U	0.13	1.0
Toluene	1.0	U	0.090	1.0
Ethylbenzene	1.0	U	0.25	1.0
Xylenes, Total	3.0	U	0.43	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 122
Bromofluorobenzene	92		69 - 135
Toluene-d8 (Surr)	96		69 - 125

Client: ARCADIS U.S. Inc

Job Number: 460-32958-1

Client Sample ID: **MW-3S**

Lab Sample ID: 460-32958-1
Client Matrix: Water

Date Sampled: 10/27/2011 1330
Date Received: 10/28/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91628	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91448	Lab File ID:	x19227.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	11/02/2011 1009			Final Weight/Volume:	2.00 mL
Prep Date:	11/01/2011 1235			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	5.0	U	1.8	5.0
n,n'-Dimethylaniline	1.0	U	0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	90		53 - 108
2-Fluorophenol	52		10 - 65
Nitrobenzene-d5	90		56 - 112
Phenol-d5	27		10 - 48
Terphenyl-d14	94		50 - 122
2,4,6-Tribromophenol	100		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32958-1

Client Sample ID: TW-02RRR

Lab Sample ID: 460-32958-2
Client Matrix: Water

Date Sampled: 10/27/2011 1500
Date Received: 10/28/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91628	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91448	Lab File ID:	x19228.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	11/02/2011 1032			Final Weight/Volume:	2.00 mL
Prep Date:	11/01/2011 1235			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
n,n'-Dimethylaniline	5.5		0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	92		53 - 108
2-Fluorophenol	46		10 - 65
Nitrobenzene-d5	86		56 - 112
Phenol-d5	24		10 - 48
Terphenyl-d14	99		50 - 122
2,4,6-Tribromophenol	91		46 - 122

Client Sample ID: TW-02RRR

Lab Sample ID: 460-32958-2
Client Matrix: Water

Date Sampled: 10/27/2011 1500
Date Received: 10/28/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91628	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91448	Lab File ID:	x19246.d
Dilution:	10			Initial Weight/Volume:	1000 mL
Analysis Date:	11/02/2011 1731	Run Type:	DL	Final Weight/Volume:	2.00 mL
Prep Date:	11/01/2011 1235			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	1300	D	18	50

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	0	D	53 - 108
2-Fluorophenol	0	D	10 - 65
Nitrobenzene-d5	0	D	56 - 112
Phenol-d5	0	D	10 - 48
Terphenyl-d14	0	D	50 - 122
2,4,6-Tribromophenol	0	D	46 - 122

Client Sample ID: Dup-102711-01

Lab Sample ID: 460-32958-3
Client Matrix: Water

Date Sampled: 10/27/2011 0000
Date Received: 10/28/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91628	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91448	Lab File ID:	x19229.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	11/02/2011 1055			Final Weight/Volume:	2.00 mL
Prep Date:	11/01/2011 1235			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
n,n'-Dimethylaniline	6.2		0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	101		53 - 108
2-Fluorophenol	54		10 - 65
Nitrobenzene-d5	97		56 - 112
Phenol-d5	28		10 - 48
Terphenyl-d14	103		50 - 122
2,4,6-Tribromophenol	97		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32958-1

Client Sample ID: **Dup-102711-01**

Lab Sample ID: 460-32958-3
Client Matrix: Water

Date Sampled: 10/27/2011 0000
Date Received: 10/28/2011 1015

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-91628	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-91448	Lab File ID:	x19247.d
Dilution:	10			Initial Weight/Volume:	1000 mL
Analysis Date:	11/02/2011 1754	Run Type:	DL	Final Weight/Volume:	2.00 mL
Prep Date:	11/01/2011 1235			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	1500	D	18	50

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	0	D	53 - 108
2-Fluorophenol	0	D	10 - 65
Nitrobenzene-d5	0	D	56 - 112
Phenol-d5	0	D	10 - 48
Terphenyl-d14	0	D	50 - 122
2,4,6-Tribromophenol	0	D	46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-32958-1

Client Sample ID: TW-02RRR

Lab Sample ID: 460-32958-2
Client Matrix: Water

Date Sampled: 10/27/2011 1500
Date Received: 10/28/2011 1015

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-91249	Instrument ID:	BNAGC5
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/29/2011 0420			Injection Volume:	1 uL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Methanol	500	U	500	500

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Pentanol	82		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-32958-1

Client Sample ID: **Dup-102711-01**

Lab Sample ID: 460-32958-3
Client Matrix: Water

Date Sampled: 10/27/2011 0000
Date Received: 10/28/2011 1015

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-91249	Instrument ID:	BNAGC5
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/29/2011 0426			Injection Volume:	1 uL
Prep Date:	N/A			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Methanol	500	U	500	500

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Pentanol	85		47 - 132