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:
October 31, 2012

Contact:
David J. Ulm

Phone:
315.671.9210

Email:
david.ulm@arcadis-us.com

Our ref:
B0026003.0000.00190 #2

Dear Mr. Long:

ARCADIS of New York, Inc. (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 the DER-10 Technical Guidance for Site Investigation and Remediation (New York State Department of Environmental Conservation [NYSDEC] 2010a). This PRR describes the operation and maintenance (O&M) activities conducted at the site and the monitoring results obtained from January through June 2012.

This PRR also fulfills the requirements of the NYSDEC-approved Site Operation and Maintenance Plan (Site O&M Plan; Blasland, Bouck & Lee, Inc. [BBL] 1999a) and 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 addendum to the Site O&M Plan (BBL 1999b), and the 2010 modifications (ARCADIS 2010a and NYSDEC 2010b) are collectively referred to herein as the Site O&M Plan and associated documents (BBL 1999a and 1999b, ARCADIS 2010a, and NYSDEC 2010b).

The information provided in this PRR is presented in the following sections:

- *Site Remediation Background.* Provides a brief description and history of the remediation activities at the site and Site O&M Plan modifications (ARCADIS 2010a and NYSDEC 2010b).

- *In-Situ Aerobic Bioremediation Treatment Program Activities.* Describes the *in-situ* aerobic bioremediation treatment program activities conducted at the site from January through June 2012.

- *Hydraulic Process Control Monitoring.* Describes the results of the hydraulic process control monitoring activities conducted at the site from January through June 2012.

- *Chemical of Concern Process Control and Biannual Groundwater Monitoring Program.* Describes the April 2012 results of the constituent of concern (COC) process control and Biannual Groundwater Monitoring Program, and summarizes the COC data obtained at the site from 1988 through June 2012.

- *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 signed in March 1994 (OU1 ROD; NYSDEC 1994) called for *in-situ* aerobic bioremediation of the unsaturated soils comprising OU1. A ROD for OU2 signed in March 1997 (OU2 ROD; NYSDEC 1997) called for anaerobic bioremediation of groundwater and saturated soil. Biannual reports detailing both the O&M activities and 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 (cy) 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. According to DER-33 (NYSDEC 2010c), a deed restriction is required (rather than an environmental easement or environmental notice) because the site is a Class 2 Inactive Hazardous Waste Disposal Site (i.e., significant threat to the public health or environment – action required) and the OU1 ROD (NYSDEC 1994) 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.

Figure 1 shows the locations of the withdrawal trench and the infiltration trenches. The trenches in Area 3 have been designated as main infiltration trench "C," secondary infiltration trench "B," and secondary infiltration trench "A." In addition to the aforementioned components, the remedy for OU2 initially included the following:

- Conducting a process control monitoring program to monitor the effectiveness of the *in-situ* anaerobic bioremediation treatment systems.

- Introducing RAMM into the shallow hydrogeologic unit within each of the three areas, at discrete locations throughout each area, using a truck-mounted vertical injection mast. Two discrete RAMM injection events were conducted: an initial event from August 5 to 12, 1998 and a second event on August 28, 29, and 30, 2000.

A process control monitoring program was implemented to monitor the effectiveness of the *in-situ* anaerobic bioremediation treatment systems. The process control monitoring program included hydraulic, biological, and COC monitoring. Ongoing O&M activities are performed as part of the NYSDEC-selected remedies for both of these OUs. These O&M activities, in general, include the following:

- Conducting biannual groundwater monitoring in association with the NYSDEC-selected remedy for OU2

- Operating and maintaining the *in-situ* anaerobic bioremediation systems installed as part of the NYSDEC-selected remedy for OU2

- Conducting process control monitoring in association with the remedy for OU2

The data obtained during the process control monitoring program have been periodically reviewed. In 2004, the periodic review of the data obtained as part of the monitoring program suggested that concentrations of aniline and N,N-dimethylaniline near MW-8S and TW-02R were not being reduced as successfully as in other areas of the site. A selected excavation program was designed and implemented for the removal of 65 cy of saturated soil near MW-8S and approximately 6 cy of saturated soil around TW-02R. The backfill placed in the Area 3 excavation was amended with

RAMM to facilitate the anaerobic degradation of COCs in groundwater that entered that area of the site. In addition, three well points were installed around monitoring wells MW-27, MW-28, and MW-33 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 6 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 semivolatile 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)

- Installation of an aerator stone in the equalization tank of the Area 3 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 in 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 from the hydraulic monitoring program
- 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 are analyzed for all site COCs, excluding methanol. Because there were 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 near this well, and its relatively remote location on site (Figure 1), MW-4S is included in the sampling program every third biannual sampling event. Samples were collected during the April 2012 event and will be collected from this well again in fall 2013.

Beginning in June 2011, the *in-situ* aerobic bioremediation treatment program was modified to include monthly injections of ORC®-amended groundwater into the five standpipes within Area 2. The ORC® was the product left over from the December 2010 excavation work. Monthly ORC®-amended groundwater injections ended in December 2011.

In-Situ Aerobic Bioremediation Treatment Program Activities

In July 2006, the NYSDEC verbally approved the *in-situ* aerobic bioremediation treatment program 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; and 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 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 (January through June 2012) 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 PRR.

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 April 9, 2012. Monitoring locations are listed in Table 1 and shown on Figure 1. Mr.

Payson Long (NYSDEC) was notified of the spring 2012 hydraulic and COC monitoring event in the PRR dated April 4, 2012 (ARCADIS 2012).

Table 2 summarizes the groundwater elevation measurements obtained during the April 9, 2012 hydraulic process control monitoring event, as well as those obtained since October 2006 (just after initiating the *in-situ* aerobic bioremediation treatment program). Table 2 of Attachment A summarizes the historical groundwater elevation 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 April 2012 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 2.27 to 4.93 gallons per minute from January through June 2012.

- 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 January through June 2012.

- The hydraulic data that have been 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 1.75 to 2.19 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.

Institutional and Engineering Controls

A deed restriction was identified as an institutional control in the ROD for OU1. To date, the deed restriction has not been filed.

For the engineering controls identified for the site (i.e., fencing/access control and groundwater containment), the following statements are true:

- The engineering controls employed at the site are unchanged from the date the control was put in place, or last approved by the NYSDEC Division of Environmental Remediation (DER);
- Nothing has occurred that would impair the ability of such controls to protect public health and the environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for these controls; and
- Access to the site will continue to be provided to DER to evaluate the remedy, including access to evaluate the continued maintenance of these controls.

Attachment C contains the completed Institutional and Engineering Controls Certification Form.

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 April 9 through 12, 2012 in accordance with the Site O&M Plan (BBL 1999a). 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 April 2012 sampling events: temperature, conductivity, DO, and oxidation/reduction potential. Table 1 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 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, ARCADIS validated laboratory analytical results for the April 2012 samples. 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 April 2012, 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 Table 2 of Attachment A and presented on Figures 1 through 6 of Attachment A. Copies of the validated analytical laboratory reports associated with the April 2012 sampling event are presented in Attachment B. This PRR summarizes the COC analytical results and DO measurements for each of the three areas and the downgradient perimeter monitoring locations.

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

During the April 2012 sampling event, the presence or absence of nonaqueous 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 April 2012 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 April 2012 for monitoring locations MW-8SR, MW-27, MW-28, MW-33, MW-36R, and TW-02RRR.

The COC analytical results and DO measurements for the April 2012 groundwater sampling event are summarized below for each area and downgradient monitoring wells, along with Mann-Kendall Test for Trends results, which integrate the April 2012 data:

- *Sentinel Wells*. COCs were not detected at sentinel wells MW-3S and MW-4S 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 April 2012 were generally low, ranging from nondetect to concentrations just slightly greater than their respective NYSDEC Groundwater Quality Standard (Table 3 and Figure 5). The majority of COC concentrations detected during April 2012 at Area 1 monitoring wells were approximately equal to or below concentrations detected during the October 2011 sampling event.

  - At TW-01, N,N-dimethylaniline (1.7 parts per billion [ppb]) was detected at a concentration slightly greater than the NYSDEC Groundwater Quality Standard (1 ppb). Eight of 10 COCs were not detected, and one was detected below its NYSDEC Groundwater Quality Standard.

- At MW-9S, benzene (1.1 ppb), ethylbenzene (18 ppb), xylenes (67 ppb), and N,N-dimethylaniline (6.3 ppb) were detected above their respective NYSDEC Groundwater Quality Standards (1, 5, 5, and 1 ppb, respectively). All other COCs either were not detected (four of 10) or detected below their respective NYSDEC Groundwater Quality Standard (two of 10).

- At MW-31, benzene (6.8 ppb) and N,N-dimethylaniline (2.1 ppb) were detected at concentrations above their respective NYSDEC Groundwater Quality Standards (both 1 ppb). All other COCs either were not detected (four of 10) or were detected below their respective NYSDEC Groundwater Quality Standard (four of 10).

- At MW-32, N,N-dimethylaniline (1.1 ppb) was detected at a concentration slightly greater than the NYSDEC Groundwater Quality Standard (1 ppb). All other COCs (nine of 10) were not detected.

- N,N-dimethylaniline (1.3 ppb) was detected at MW-33 at concentrations slightly above its NYSDEC Groundwater Quality Standard (1 ppb). 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 ten 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 (seven of nine) or were detected below their respective NYSDEC Groundwater Quality Standard (one of nine).

- DO levels measured at MW-33 from January through June 2012 ranged from 0.37 to 0.67 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 downward.

- *Area 2:*

  - COC concentrations detected in groundwater samples collected from Area 2 monitoring wells were generally low; most COC concentrations detected during April 2012 at Area 2 monitoring wells were approximately equal to or

below concentrations detected during the October and December 2011 sampling events (Table 3 and Figure 5).

- Aniline (1,400 ppb; 1,600 ppb in duplicate sample) was detected in the groundwater sample collected at TW-02RRR at a concentration above its NYSDEC Groundwater Quality Standard (5 ppb). Benzene (1.6 ppb; 1.5 ppb in duplicate sample) was also detected above its NYSDEC Groundwater Quality Standard (1 ppb) at this location. Overall, the aniline and benzene concentrations detected at this location are trending downward. All other COCs either were not detected (four of 10) or were detected below their respective NYSDEC Groundwater Quality Standard (four of 10).

- At MW-34, benzene and N,N-dimethylaniline (1.3 and 2.4 ppb, respectively) were detected at concentrations above their respective NYSDEC Groundwater Quality Standard (1 ppb for each). Acetone concentrations (37 ppb) detected in April 2012 are consistent with historical results after anomalously exceeding the NYSDEC Groundwater Quality Standard of 50 ppb in October 2011 (350 ppb). All other COCs either were not detected (four of 10) or were detected below their respective NYSDEC Groundwater Quality Standard (three of 10) during this reporting period (including aniline, which exceeded its NYSDEC Groundwater Quality Standard in April 2011).

- At MW-35, no COCs have exceeded the NYSDEC Groundwater Quality Standards in this well since November 2004, except for methanol in September 2009. During the April 2012 sampling event, one COC (one of 10) was detected below NYSDEC Groundwater Quality Standards. Nine of 10 COCs were not detected.

- The aniline concentrations detected in groundwater samples collected at MW-36R during the April 2012 sampling event (150 ppb) exceeded the NYSDEC Groundwater Quality Standard (5 ppb). Benzene (1.6 ppb) and N,N-dimethylaniline (4.1 ppb) were detected at concentrations greater than the NYSDEC Groundwater Quality Standard (1 ppb for each). Overall, the benzene concentrations detected at this location are trending downward. All other COCs either were not detected (two of nine) or were detected below their respective NYSDEC Groundwater Quality Standard (four of nine).

- DO levels measured in Area 2 (MW-36R and TW-02RRR) between January and June 2012 are summarized in Table 4. The DO levels ranged from 0.38

and 0.67 ppm at MW-36R and from 0.46 to 0.54 ppm at TW-02RRR. Aerobic conditions in groundwater are generally indicated when DO levels are greater than 2 ppm. The results of the Mann-Kendall Test for Trends show that DO concentrations are decreasing at MW-36R and TW-02RRR.

- *Area 3:*

  - COC concentrations detected in groundwater samples collected from Area 3 monitoring wells during the April 2012 sampling event were generally consistent with or lower than the concentrations detected in the previous sampling event conducted in October 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). Benzene (1.2 ppb; 1.7 ppb in duplicate sample), total xylenes (9.5 ppb; 15 ppb in duplicate sample), and N,N-dimethylaniline concentrations (2.4 ppb; 2.6 ppb in duplicate sample) slightly exceeded their respective NYSDEC Groundwater Quality Standards (1, 5, and 1 ppb, respectively). The results of the Mann-Kendall Test for Trends show that benzene concentrations in groundwater at MW-8SR are trending downward. All other COCs were either not detected (three of nine), or were detected below their respective NYSDEC Groundwater Quality Standards (three of nine). COCs not detected during this sampling event include aniline and ethylbenzene, which had exceeded their respective NYSDEC Groundwater Quality Standards in April 2011. Aniline has not been detected during the past two sampling events. Similarly, ethylbenzene has been detected below NYSDEC Groundwater Quality Standards during the past two sampling events. Toluene has not been detected above NYSDEC Groundwater Quality Standards since September 2009.

  - At MW-27, benzene (1.5 ppb) and N,N-dimethylaniline (2.7 ppb) slightly exceeded their respective NYSDEC Groundwater Quality Standards (1 ppb for each). Results of the Mann-Kendall Test for Trends show that benzene concentrations in MW-27 are trending downward. Aniline was not detected above NYSDEC Groundwater Quality Standard (5 ppb) for the first time since September 1998 (Attachment A). All other COCs were either not detected (three of nine), or were detected below their respective NYSDEC Groundwater Quality Standard (three of nine). Ethylbenzene, toluene, and

total xylenes have not been detected above NYSDEC Groundwater Quality Standards for the past two sampling events (since April 2011).

- Monitoring well MW-28 has historically exhibited relatively higher concentrations of aniline (Attachment A). In April 2012, aniline was not detected, and has not been detected above the NYSDEC Groundwater Quality Standard (5 ppb) for five consecutive biannual sampling events (since April 2010). Benzene (1.4 ppb) was the only COC that was detected above its NYSDEC Groundwater Quality Standard (1 ppb). The results of the Mann-Kendall Test for Trends show that benzene concentrations in the groundwater samples collected from MW-28 are trending downward. All other COCs were either not detected (six of 10), or were not detected above their NYSDEC Groundwater Quality Standard (two of 10).

- At MW-29, all COCs were not detected. No COCs have exceeded the NYSDEC Groundwater Quality Standards in this well since May 2003.

- All COCs were not detected at MW-30. No COCs have exceeded the NYSDEC Groundwater Quality Standards in this well since April 2011.

- DO levels measured at MW-8SR, MW-27, and MW-28 between January and June 2012 are summarized in Table 4. The DO levels at MW-8SR ranged from 0.44 to 0.73 ppm. The DO levels at MW-27 ranged from 0.50 to 0.69 ppm. The DO levels at MW-28 ranged from 0.62 to 0.96 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 downward.

- *Downgradient perimeter monitoring locations*. No COCs were detected in three (PZ-4S, MW-23I, and MW-23S) of the seven downgradient perimeter monitoring locations during the April 2012 sampling event. In the remaining three wells (PZ-4D, MW-17R, and MW-18), there were no detections of COCs above the NYSDEC Groundwater Quality Standards during the April 2012 sampling event (Table 3 and Figure 6).

Conclusions

The process control monitoring data presented in this PRR 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 April 2012. 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 April 2012, the COCs in this area were mostly nondetect 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 objectives of the OU2 ROD (NYSDEC 1997). A few COCs (i.e., N,N-dimethylaniline, benzene, ethylbenzene, and total xylenes) continue to be present at concentrations greater than their respective NYSDEC Groundwater Quality Standards. The results of the Mann-Kendall Test for Trends show that N,N-dimethylaniline concentrations are showing a decreasing trend at MW-33.
- In the downgradient edge of Area 1, aniline was not detected in the groundwater sample from MW-33 during the April 2012 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 January through June 2012, 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 11 sampling events since June 2006. The concentrations continue to be relatively low, excluding aniline detected at monitoring location TW-02RRR and MW-36R in April 2012. 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 the April 2012 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 soil have been reduced, controlled, or eliminated. 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 the OU2 ROD objectives (NYSDEC 1997). A few COCs (i.e., aniline, N,N-dimethylaniline, and benzene) continue to be present at concentrations greater than their respective NYSDEC Groundwater Quality Standards. The results of the Mann-Kendall Test for Trends show that benzene concentrations are showing a decreasing trend at MW-36R.

- 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 first half of 2012 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 April 2012 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 soil 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 OU2 ROD (NYSDEC 1997). A few COCs (i.e., aniline, N,N-dimethylaniline, benzene, and total xylenes) continue to be present at concentrations greater than their respective NYSDEC Groundwater Quality Standards. The results of the Mann-Kendall Test for Trends show that aniline, benzene, and total xylene concentrations are showing a decreasing trend at MW-8R, MW-27, and MW-28.

- Based on the DO levels measured in Area 3 from January through June 2012, 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 April 2012, 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.

- The OU2 remedy continues to be protective of public health and the environment and complies with the OU2 ROD (NYSDEC 1997).

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 not detected in Area 1, with N,N-dimethylaniline and benzene concentrations 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 soil, and the ORC® soil amendment 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 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 remedial activities in Areas 1, 2, and 3 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 recommendations will be presented in the Periodic Review Report for July through December 2012, which is scheduled to be submitted to NYSDEC in mid-January 2013.

The Biannual Groundwater Monitoring Program activities will continue at the site (Table 1). The second biannual sampling event for 2012 was conducted during the week of October 1. ARCADIS recommends continuing to measure DO levels monthly at MW-36R and TW-02RRR in Area 2 and at MW-27, MW-28, and MW-8SR in Area 3, and to 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).

A draft deed restriction (Declaration of Covenants and Restrictions) was provided by NYSDEC in August 2011. The deed restriction language needs to be discussed with the NYSDEC. The Periodic Review Report for July through December 2012 will contain modified deed restriction language for NYSDEC's consideration. Upon approval of the language, the site Respondents will complete the deed restriction process as outlined in Section V.2.a.b.7 of DEC-33 (Institutional Controls: A Guide to Drafting and Recording Institutional Controls). Reclassification of the site to Class 4 Inactive Hazardous Waste Disposal Site (i.e., site properly closed – requires continued management) is anticipated after establishment of the deed restriction.

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 contact me at 315.671.9210.

Sincerely,

ARCADIS of New York, Inc.

David J. Ulm
Senior Vice President

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Enclosures:

Tables

Table 1	Revised Long-Term Hydraulic and COC Process Control Monitoring Schedule
Table 2	Summary of Groundwater Level Measurements, Aerobic Bioremediation Treatment Program, October 2006 through April 2012
Table 3	Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through April 2012
Table 4	Summary of Dissolved Oxygen Measurements, August 2006 through June 2012

Figures

Figure 1	Site Plan
Figure 2	Oxygen Infusion System Layout Area 2

Figure 3	Oxygen Infusion System Layout Area 3
Figure 4	Potentiometric Surface of the Shallow Hydrogeologic Unit Sand Layer April 9, 2012
Figure 5	Groundwater Monitoring Data Summary for March 2009 – April 2012, Areas 1 & 2 (Aerobic Treatment)
Figure 6	Groundwater Monitoring Data Summary for March 2009 – April 2012, Area 3 (Aerobic Treatment)

Attachments

Attachment A

Table 1	Summary of Historical Groundwater Level Measurements, June 1988 through June 2006
Table 2	Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008
Figures 1 – 6	Groundwater Monitoring Data Summaries

Attachment B	Validated Analytical Laboratory Report
Attachment C	IC/EC Certification Form

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)

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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 second sampling event of 2013.

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 New York State Department of Environmental Conservation (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 April 2012
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	4/9/2012
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	358.39
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	360.95
MW-3S[1]	376.54	369.08	--	367.60	367.93	365.19	367.32	365.50	365.67	367.95	369.21	--	366.44
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	363.92
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	--	362.57
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	--	364.99
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	362.23
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	365.09
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	362.81
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	365.24
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	365.48
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	363.24
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	362.14
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	366.10
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	366.39
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	363.67
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	366.46
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	366.53
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	366.40
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	366.77
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	366.30
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	362.65
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	362.16
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	362.86
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	366.06
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	362.61
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	366.49
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	366.52
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	366.48
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	366.51
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	366.32
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	366.29
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	366.28

Notes:

[1]Well not used in potentiometric 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

Abbreviations:

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

-- = Not Measured

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through April 2012
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				50	1	5	5	5	5	5	5	1	NS
MW-3S	3/09	365.1	350.1	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10	0.17 J	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	<1.0	NA
	4/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3 J	<1.1 J	NA
	10/11			<10	<1.0	<1.0	<1.0	0.35 J	<1.0	<3.0	<5.0	<1.0	NA
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA
MW-4S	10/10	365.5	350.5	<10 [<10]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<3.0 [<3.0]	<5.0 [<5.0]	<1.0 [<1.0]	<500 J [<500 J]
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA
MW-8SR[B]	3/09	362.7	352.7	6.5 J [5.8 J]	6.8 [6.8]	66 [63]	<1.0 [<1.0]	10 [10]	<1.0 [<1.0]	140 [140]	2,200 [1,800]	<12 [<12]	<500 [<500]
	6/09			NA	NA	NA	NA	NA	NA	NA	7,000	<50	NA
	9/09			<10 [8.3 J]	8.5 J [7.9]	44 J [38]	<1.0 [<1.0]	6.8 J [6.5]	<1.0 J [<1.0]	81 J [71]	4,000 [3,400]	<20 [<20]	<500 [<500]
	4/10			<10 [<10]	4.2 [3.5]	23 J [18]	<1.0 [<1.0]	4.6 [3.7]	<1.0 [<1.0]	41 [33]	370 J [720 J]	1.0 J [<5.0]	<500 [<500]
	10/10			<10	2.7	16	<1.0	2.0	<1.0	31	220	1.6	NA
	4/11			5.9 J [4.3 J]	3.2 [3.2]	10 [8.8]	<1.0 [<1.0]	2.8 [2.6]	<1.0 [<1.0]	32 [31]	57 J [64]	1.5 [1.6]	NA
	10/11			<10 [<10]	1.9 [2.0]	2.0 [2.1]	<1.0 [<1.0]	1.3 [1.3]	<1.0 [<1.0]	14 [15]	<5.0 [<5.0]	2.6 [<1.0]	NA
	4/12			8.7 J [6.7 J]	1.2 [1.7]	2.3 [3.3]	<0.18 [<0.18]	0.76 J [1.2]	<0.090 [<0.090]	9.5 [15]	<1.9 [<1.9]	2.4 [2.6]	NA
MW-9[C]	3/09	365.6	356	<10	1.2	27	<1.0	2.5	<1.0	65	<5.0	4.2	<500
(Replaced by MW-9S)	9/09			<10	1.7	20	<1.0	2.2	<1.0	70	<5.0	4.1	730
	4/10			<10	0.86 J	26	<1.0	2.1	<1.0	69	<5.0	6.5	<500
	10/10			<10	1.3	11	<1.0	1.9	<1.0	45	<5.1	7.5	<500 J
	4/11			<10	0.91 J	29	<1.0	2.6	<1.0	89	<5.3	5.4	<500
	10/11			<10	1.2	4.2	<1.0	1.8	<1.0	41 J	<5.0	7.6	<500
	4/12			7.5 J	1.1	18	<0.18	1.5	<0.090	67	<1.9	6.3	<500
MW-17[D]	3/09	365.7	356.1	<10	2.3	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
(Replaced by MW-17R)	9/09			<10 J	0.86 J	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	0.22 J	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10	1.3	<1.0	<1.0	<1.0	<1.0	<3.0	<5.6	<1.1	<500 J
	4/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3 J	<1.1 J	<500
	10/11			<10	<1.0	<1.0	<1.0	0.19 J	<1.0	<3.0 J	<5.0	<1.0	<500
	4/12			<2.7	0.22 J	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	<500
MW-18	3/09	325.15	316.15	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	<1.0	<1.0	33	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	6/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	NA	NA	NA
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	<500 J
	4/11			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	0.23 J	<1.0	<3.0 J	<5.0	<1.0	<500
	4/12			<2.7	<0.080	<0.10	<0.18	0.27 J	<0.090	<0.36	<1.8	<0.21	<500

See notes on Page 5.

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through April 2012
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				50	1	5	5	5	5	5	5	1	NS
MW-23S	3/09	364.1	354.1	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			3.7 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500 J
	4/11			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	0.31 J	<1.0	<3.0	<5.0	<1.0	<500
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	<500
MW-23I	3/09	341.2	336.2	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	<1.0	<1.0	8.4	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	6/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	NA	NA	NA
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500 J
	4/11			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	0.29 J	<1.0	<3.0	<5.0	<1.0	<500
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	<500
MW-27	3/09	362.5	354.5	14 J	8.7	36	<1.0	9.4	<1.0	88	8,200 J	<50 J	<500
	6/09			NA	NA	NA	NA	NA	NA	NA	7,400	<50	NA
	9/09			10	6.2	5.9	<1.0	6.9	<1.0	23	2,100	<10	<500
	4/10			<10	4.5	6.1	<1.0	2.4	<1.0	10	1,300	<10	<500
	10/10			<10	2.7	1.4	<1.0	1.3	<1.0	3.4	220	2.5	NA
	4/11			3.9 J	3.1	5.1	<1.0	5.7	<1.0	9.1	1,000	<11	NA
	10/11			<10	2.1	2.2	<1.0	1.3	<1.0	3.1	36	2.7	NA
	4/12			<2.7	1.5	1.4	<0.18	0.45 J	<0.090	2.2 J	<1.9	2.7	NA
MW-28	3/09	363.6	355.6	<10	3.5	0.8 J	<1.0	0.3 J	<1.0	1.1 J	18	<0.5	851
	9/09			<10	3.1	0.32 J	<1.0	0.25 J	<1.0	0.48 J	6.7	<1.0	<500
	4/10			<10	2.8	0.60 J	<1.0	0.23 J	<1.0	0.46 J	<5.0	0.49 J	<500
	10/10			<10	1.8	<1.0	<1.0	<1.0	<1.0	<3.0	2.4 J	0.60 J	<500 J
	4/11			4.3 J	2.3	<1.0	<1.0 B	0.11 J	<1.0	<3.0	3.9 J	0.75 J	<500
	10/11			<10	1.8	<1.0	<1.0	0.38 J	<1.0	<3.0	<5.0	<1.0	<500
	4/12			<2.7	1.4	<0.10	<0.18	0.22 J	<0.090	<0.36	<1.8	0.48 J	<500
MW-29	3/09	362.9	345.9	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10	<1.0	<1.0	<1.0	0.16 J	<1.0	<3.0	<5.0	0.29 J	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	<1.0	NA
	4/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3 J	<1.1 J	NA
	10/11			<10	<1.0	<1.0	<1.0	0.22 J	<1.0	<3.0 J	<5.0	0.22 J	NA
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA

See notes on Page 5.

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through April 2012
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				50	1	5	5	5	5	5	5	1	NS
MW-30	3/09	363.5	355.5	<10	0.8 J	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10	0.78 J	<1.0	<1.0	0.17 J	<1.0	<3.0	21	<1.0	<500
	4/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10 J	0.14 J	<1.0	37	<1.0	<1.0	<3.0	<5.1	<1.0	NA
	4/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3 J	<1.1 J	NA
	10/11			<10	<1.0	<1.0	<1.0	0.18 J	<1.0	<3.0 J	<5.0	<1.0	NA
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA
MW-31	3/09	363.7	355.4	9.4 J	8.3	< 1.0	<1.0	0.6 J	<1.0	0.8 J	<5.0	2.3	<500
	9/09			<10	10	<1.0	<1.0	0.49 J	<1.0	2.0 J	<5.0	2.5	730
	4/10			<10	4.8	<1.0	<1.0	0.40 J	<1.0	1.3 J	<5.0	2.3	<500
	10/10			<10	6.9	<1.0	<1.0	0.50 J	<1.0	1.5 J	<5.3	3.5	<500 J
	4/11			<10	8.3	<1.0	<1.0	0.77 J	<1.0	2.5 J	<5.3	2.3	<500
	10/11			<10	5.7	<1.0	<1.0	0.62 J	<1.0	1.5 J	<5.0	3.5	<500
	4/12			6.5 J	6.8	0.16 J	<0.18	0.65 J	<0.090	2.7 J	<1.9	2.1	<500
MW-32	3/09	364	356	<10	0.5 J	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	1.1	1,200
	4/10			<10	0.23 J	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	0.89 J	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.2	0.87 J	<500 J
	4/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	0.19 J	<1.0	<3.0 J	<5.0	1.5	<500
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	1.1	<500
MW-33	3/09	344.1	356.1	<10	3.2	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	2.4	<500
	9/09			<10	2.6	<1.0	<1.0	0.20 J	<1.0	<3.0	<5.0	<1.0	<500
	4/10			<10	1.6	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	2.0	<500
	10/10			<10	1.7	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	2.7	NA
	4/11			<10	0.79 J	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	1.9	NA
	10/11			<10	0.58 J	<1.0	<1.0	0.12 J	<1.0	<3.0	<5.3	1.9	NA
	4/12			<2.7	0.11 J	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	1.3	NA
MW-34	3/09	362.7	354.7	14	1.4	<1.0	<1.0	0.7 J	<1.0	1.5 J	12	2.0	<500
	9/09			24	<1.0	<1.0	<1.0	0.64 J	<1.0	1.7 J	<5.0	2.5	1,000
	4/10			50 J	0.82 J	<1.0	<1.0	0.42 J	<1.0	1.4 J	<5.0	2.4	<500
	10/10			20	1.0	<1.0	<1.0	0.44 J	<1.0	1.3 J	1.8 J	2.9	<500 J
	4/11			16	1.7	<1.0	<1.0	0.74 J	<1.0	2.0 J	10	2.7	<500
	10/11			350	1.2	<1.0	<1.0	0.71 J	<1.0	0.90 J	<5.6	2.5	<500
	4/12			37 J	1.3	<0.10	<0.18	0.59 J	<0.090	1.4 J	2.1 J	2.4	<500

See notes on Page 5.

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through April 2012
Periodic Review Report, McKesson Envirosystems, Former Bear Street Facility, Syracuse, New York

Monitoring Well	Sampling Date	Screen Elev. (feet AMSL) Top	Bottom	Acetone	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-ethene	Xylene[A]	Aniline	N,N-Dimethyl-aniline	Methanol
NYSDEC Groundwater Quality Standards (TOGS 1.1.1)				50	1	5	5	5	5	5	5	1	NS
MW-35	3/09	363	355	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	9/09			6.5 J	<1.0	<1.0	<1.0	0.16 J	<1.0	<3.0	<5.0	<1.0	1,100
	4/10			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<500 J
	4/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.6	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.1	<1.0	<500
	4/12			14 J	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	<500
MW-36[E]	3/09	363.6	355.6	28	2.4	<1.0	<1.0	0.8 J	<1.0	2.8 J	150	2.8	<500
(Replaced by MW-36R)	6/09			NA	NA	NA	NA	NA	NA	NA	460	<5.0	NA
	9/09			21	3.1	<1.0	<1.0	0.96 J	<1.0	3.2	390	3.1	<500
	4/10			<10 J	3.3	0.26 J	<1.0	1.1	<1.0	5.4	77	2.6	<500
	10/10			12	3.9	0.28 J	<1.0	1.2	<1.0	4.8	620	<5.0	<500 J
	4/11			<10	4.3	<1.0	<1.0	0.95 J	<1.0	4.4	310	4.0	NA
	10/11			<10	1.8	<1.0	<1.0	0.66 J	<1.0	1.4 J	92	3.6	NA
	12/11			NA	NA	NA	NA	NA	NA	NA	120	NA	NA
	4/12			6.3 J	1.6	0.16 J	<0.18	0.45 J	<0.090	1.9 J	150	4.1	NA
TW-01	3/09	365.1	355.4	<10	1.9	<1.0	<1.0	<1.0	<1.0	0.6 J	<5.0	<0.5	22,300
	9/09			2.9 J	<1.0	<1.0	<1.0	0.11 J	<1.0	<3.0	<5.0	1.1	970
	4/10			<10	0.32 J	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	1.0	<500
	10/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	1.3	<500 J
	4/11			<10	0.21 J	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	<500
	10/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0 J	<5.6	1.6	<500
	4/12			<2.7	0.11 J	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	1.7	<500
TW-02RR[BE]	3/09	363.3	353.3	<10 [<10]	5.0 [4.6]	1.5 [1.6]	<1.0 [<1.0]	1.0 [1.0 J]	<1.0 [<1.0]	4.2 [4.1]	2,000 [1,600]	<10 [<10]	<500 [<500]
(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]	1.2 [1.3]	<1.0 [<1.0]	0.79 J [0.81 J]	<1.0 [<1.0]	3.5 [3.6]	1,600 [1,500]	<10 [<10]	1,000 [1,200]
	4/10			9.5 J [12 J]	4.1 [4.0]	1.2 [1.2]	<1.0 [<1.0]	0.78 J [0.75 J]	<1.0 [<1.0]	4.2 [4.0]	2,800 J [3,100 J]	<20 J [<20 J]	<500 [<500]
	10/10			<10 [<10]	3.3 [3.0]	1.0 [0.91 J]	<1.0 [<1.0]	0.82 J [0.76 J]	<1.0 [<1.0]	3.6 [3.6]	760 [810]	<5.0 [2.2 J]	<500 J [<500 J]
	4/11			<10 [<10]	2.1 [2.0]	1.2 [1.3]	<1.0 [<1.0]	0.74 J [0.75 J]	<1.0 [<1.0]	5.2 [5.3]	1.9 J [2.1 J]	3.4 [3.3]	<500 [<500]
	10/11			<10 [<10]	1.2 [1.1]	0.67 J [0.69 J]	<1.0 [<1.0]	0.53 J [0.48 J]	<1.0 [<1.0]	1.5 J [1.4 J]	1,300 D [1,500 D]	5.5 [6.2]	<500 [<500]
	12/11			NA	NA	NA	NA	NA	NA	NA	1,400	NA	NA
	4/12			15 J [13 J]	1.6 [1.5]	0.73 J [0.76 J]	<0.18 [<0.18]	0.51 J [0.48 J]	<0.090 [<0.090]	1.6 J [1.6 J]	1,400 J [1,600 J]	<2.2 J [<2.2 J]	<500 [<500]
PZ-4D	3/09	350.8	345.9	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	4/10			<10	<1.0	<1.0	5.3 J	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	6/10			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	NA	NA	NA
	4/11			<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	NA
	4/12			<2.7	<0.080	<0.10	<0.18	0.23 J	<0.090	<0.36	<1.8	<0.21	NA
PZ-4S	3/09	362.79	357.88	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<0.5	<500
	4/10			<10	<1.0	<1.0	17	<1.0	<1.0	<3.0	<5.0	<1.0	<500
	6/10			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	NA	NA	NA
	4/11			<10 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.3	<1.1	NA
	4/12			<2.7	<0.080	<0.10	<0.18	<0.15	<0.090	<0.36	<1.8	<0.21	NA

See notes on Page 5.

Table 3. Summary of Groundwater Monitoring Data, Aerobic Bioremediation Treatment Program, March 2009 through April 2012 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. The sampling event in June 2010 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 August 2004 and replacement wells MW-8SR and TW-02RR were installed in August 2004.
[C] = Well MW-9 was abandoned during OU1 soil remediation activities (1994).
[D] = Well/piezometer MW-17 was abandoned November 1997 through January 1998.
[E] = Wells/piezometers MW-36, PZ-5S, PZ-W, and TW-02RR were abandoned in November 2010. Replacement wells TW-02RRR (replaced TW-02RR) and MW-36R (replaced MW-36 and PZ-W) were installed in November 2010.

Abbreviations:

AMSL = above mean sea level (National Geodetic Vertical Datum of 1929).
NA = compound was not analyzed for in the sample
NS = standard not available
TOGS = Technical and 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.

Table 4. Summary of Dissolved Oxygen Measurements, August 2006 through June 2012
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 June 2012
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	0.40	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 June 2012
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
1/10/2012	0.37	0.67	0.51	0.63	0.96	0.61
2/9/2012	0.56	0.50	0.54	0.50	0.70	0.50
3/7/2012	0.54	0.40	0.46	0.50	0.77	0.73
4/30/2012	0.44	0.38	0.49	0.55	0.93	0.51
5/18/2012	0.67	0.44	0.51	0.67	0.62	0.44
6/8/2012	0.61	0.51	0.54	0.69	0.79	0.66

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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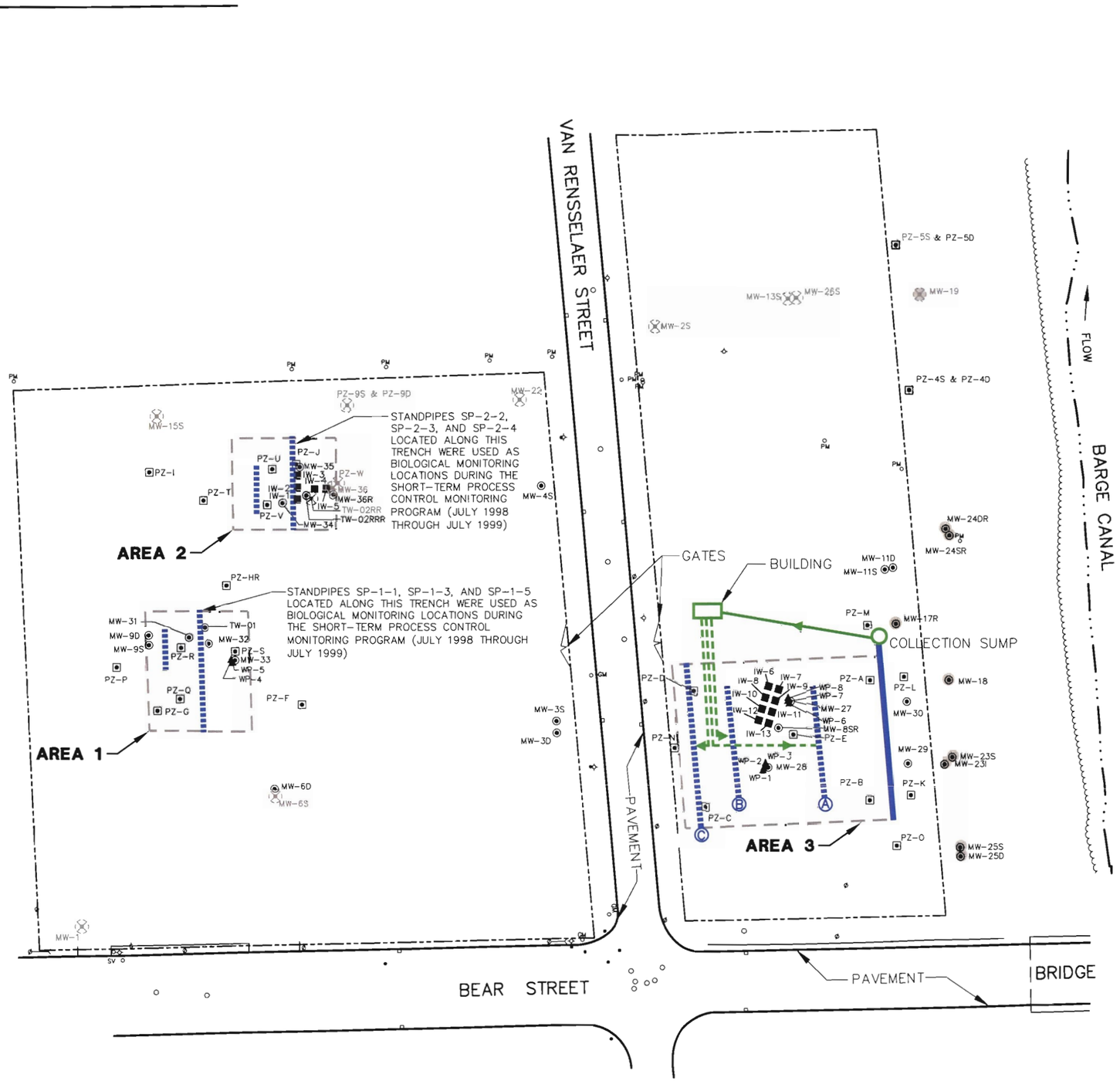
Figures



LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- MW-19 GROUNDWATER MONITORING WELL
- OR BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- PZ-A PIEZOMETER
- MW-26S PUMPING WELL
- PZ-W REMOVED/DECOMMISSIONED WELL/PIEZOMETER
- WP-8 WELL POINT
- IW-3 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'

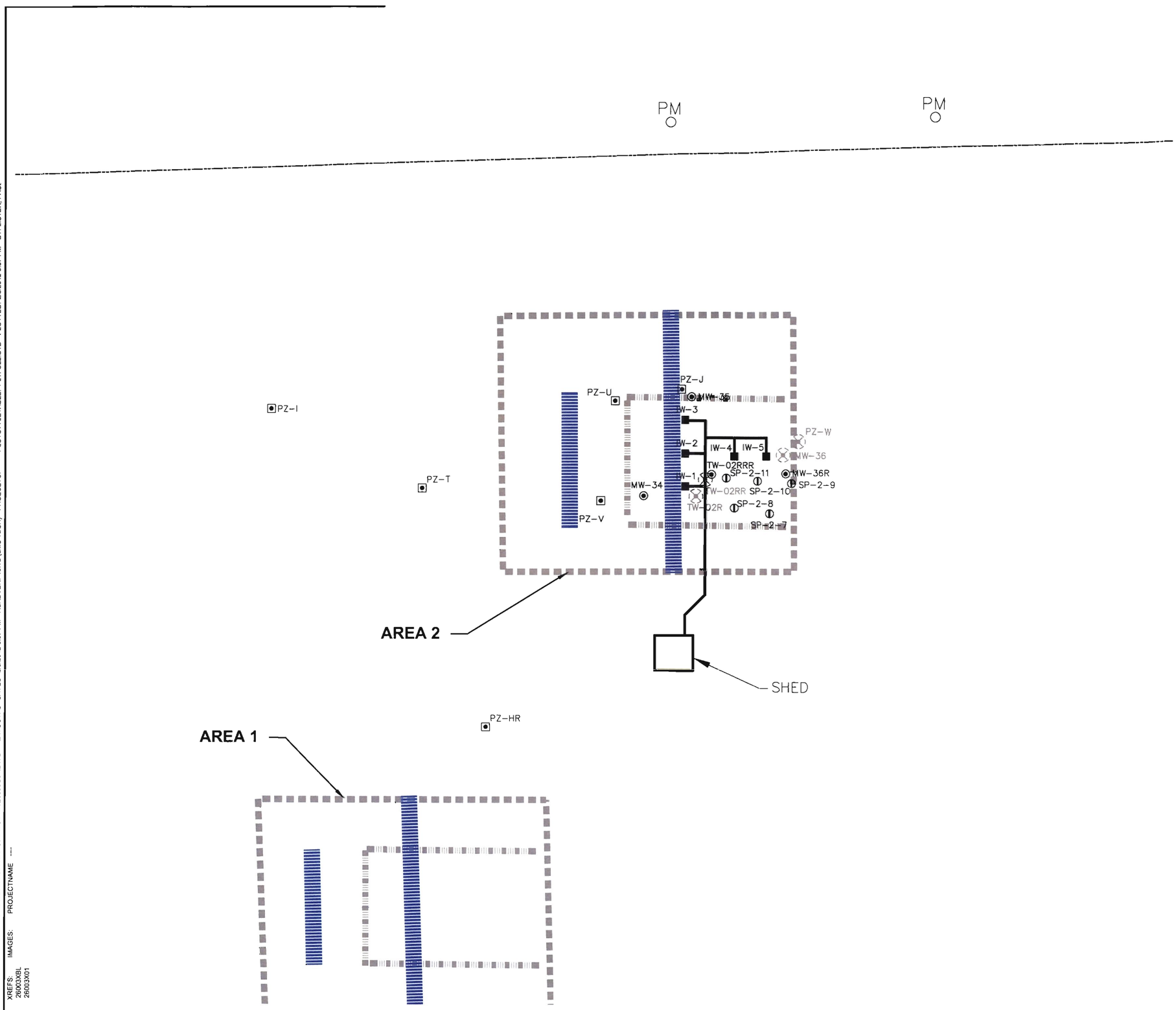
GRAPHIC SCALE

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

SITE PLAN

ARCADIS

FIGURE 1



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

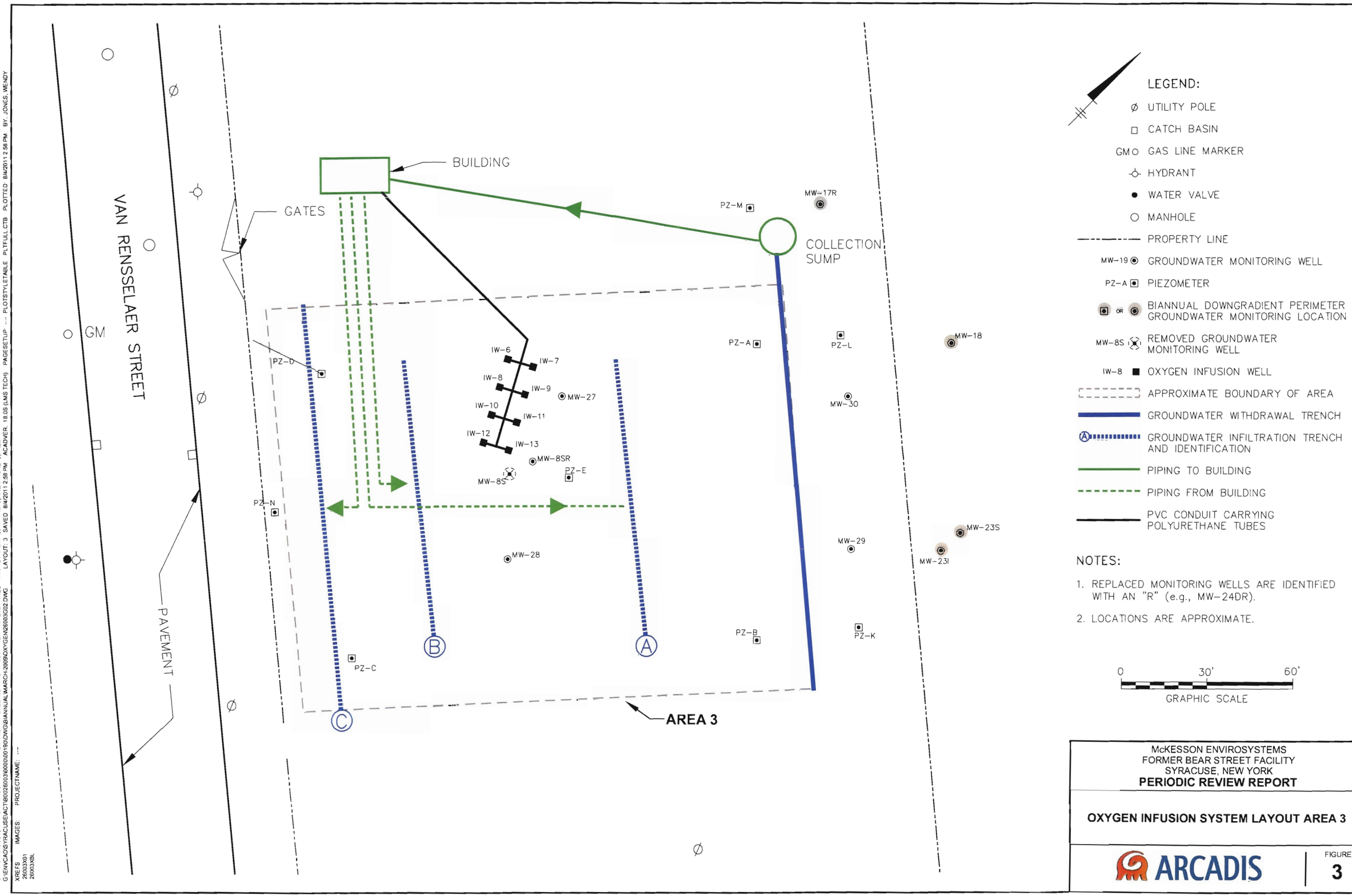
McKESSON ENVIROSYSTEMS
FORMER BEAR STREET FACILITY
SYRACUSE, NEW YORK
PERIODIC REVIEW REPORT

OXYGEN INFUSION SYSTEM LAYOUT AREA 2

ARCADIS

FIGURE
2

CITY:SYRACUSE, NY DIV/GROUP:ENV/IM-DV DB:N SMITHGALL R BASSETT P. LISTER PM/TM D. PENNIMAN TR: C. SOBOL LYR ON=*;OFF=REF*;FRZ)
G:\ENV\CAD\SYRACUSE\ACT\B0026003\0000001901DWG\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



NOTES:

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

0 30' 60'

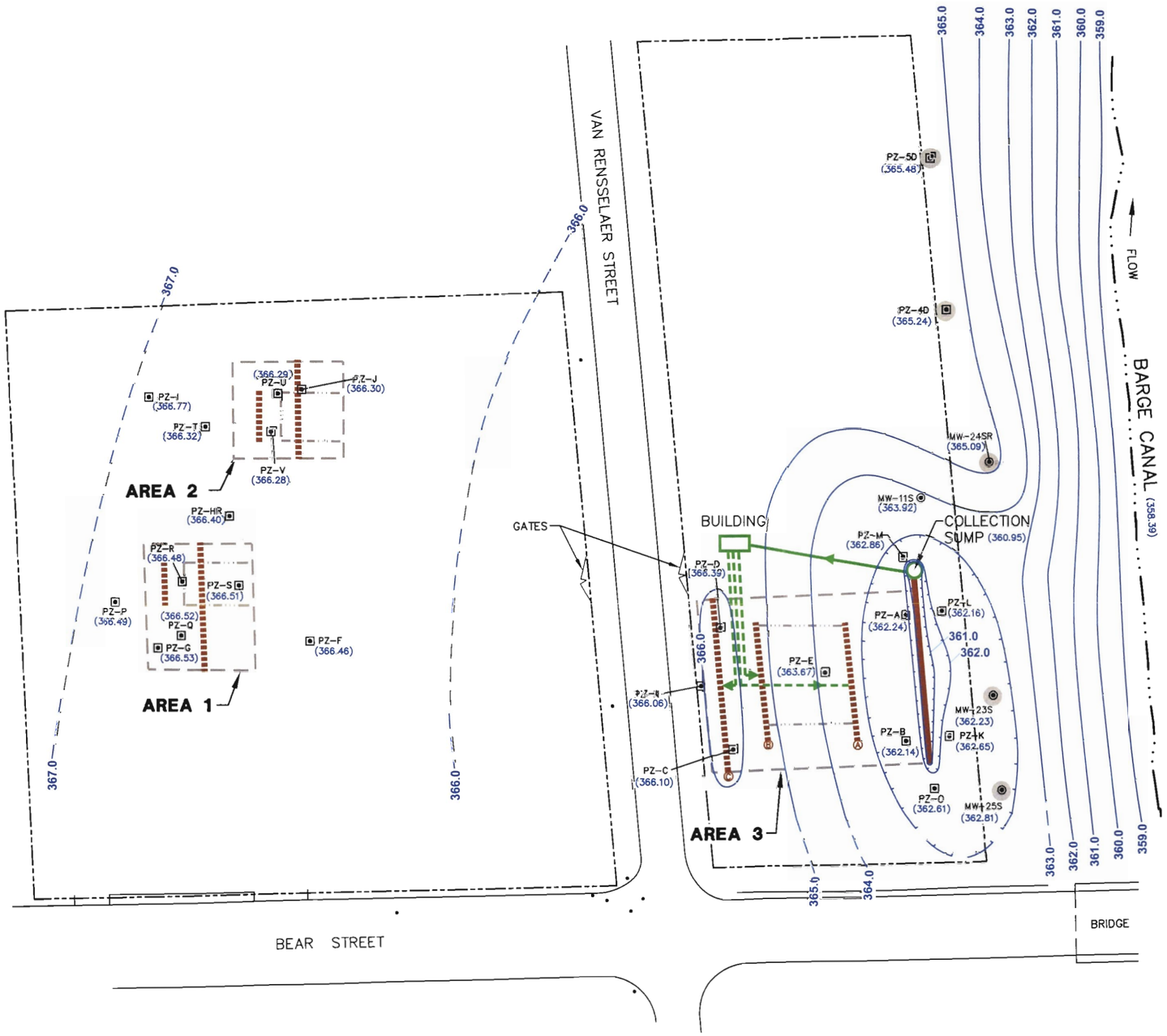
GRAPHIC SCALE

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

OXYGEN INFUSION SYSTEM LAYOUT AREA 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
- (362.0) — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- 363.0 — POTENTIOMETRIC CONTOUR (FEET ABOVE MEAN SEA LEVEL) (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 = 1 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 APRIL 9, 2012

ARCADIS

FIGURE 4

CITY:SYRACUSE_NY DIV/GROUP: ENV/IM-DV DB: R. BASSETT, W. JONES, P. LISTER PM/TM: D. PENNIMAN JR: N. SMITH LYR ON=*;OFF=REF*;FRZ
G:\ENV\CAD\SYRACUSE\ACTIVE\B026003\0000\0010\DWG\026003G01.DWG LAYOUT: 4 SAVED: 8/13/2012 2:58 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/13/2012 2:58 PM BY: LISTER, PAUL
XREFS:
026003X01
IMAGES
PROJECTNAME: ----

TW-02RRR									
Date	3/27/2009	6/16/2009	9/15/2009	4/30/2010	10/14/2010	4/5/2011	10/27/2011	12/15/2011	4/12/2012
Acetone	<10 [<10]	NA	<10 [<10]	9.5 J [12 J]	<10 [<10]	<10 [<10]	<10 [<10]	NA	15 J [13 J]
Benzene	5.0 [4.6]	NA	4.3 [4.2]	4.1 [4.0]	3.3 [3.0]	2.1 [2.0]	1.2 [1.1]	NA	1.6 [1.5]
Ethylbenzene	1.5 [1.6]	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	0.73 J [0.76 J]
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	<0.18 [<0.18]
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	0.51 J [0.48 J]
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	<0.090 [<0.090]
Xylenes (total)	4.2 [4.1]	NA	3.5 [3.6]	4.2 [4.0]	3.6 [3.6]	5.2 [5.3]	1.5 J [1.4 J]	NA	1.6 J [1.6 J]
Aniline	2000 [1600]	2800 J	1600 J [1500]	2800 J [3100 J]	760 [810]	1.9 J [2.1 J]	1300 D [1500 D]	1400	1400 J [1600 J]
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	<2.2 J [<2.2 J]
Methanol	<500 [<500]	NA	1000 [1200]	<500 [<500]	<500 J [<500 J]	<500 [<500]	<500 [<500]	NA	<500 [<500]

MW-35							
Date	3/27/2009	9/15/2009	4/30/2010	10/14/2010	4/5/2011	10/26/2011	4/11/2012
Acetone	<10	6.5 J	<10 J	<10	<10	<10	14 J
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.080
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18
Toluene	<1.0	0.16 J	<1.0	<1.0	<1.0	<1.0	<0.15
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<0.36
Aniline	<5.0	<5.0	<5.0	<5.0	<5.6	<5.1	<1.8
N,N-Dimethylaniline	<0.50	<1.0	<1.0	<1.0	<1.1	<1.0	<0.21
Methanol	<500	1100	<500	<500 J	<500	<500	<500

MW-34							
Date	3/27/2009	9/15/2009	4/30/2010	10/14/2010	4/5/2011	10/26/2011	4/12/2012
Acetone	14	24	50 J	20	16	350	37 J
Benzene	1.4	<1.0	0.82 J	1.0	1.7	1.2	1.3
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18
Toluene	0.70 J	0.64 J	0.42 J	0.44 J	0.74 J	0.71 J	0.59 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	1.5 J	1.7 J	1.4 J	1.3 J	2.0 J	0.90 J	1.4 J
Aniline	12	<5.0	<5.0	1.8 J	10	<5.6	2.1 J
N,N-Dimethylaniline	2.0	2.5	2.4	2.9	2.7	2.5	2.4
Methanol	<500	1000	<500	<500 J	<500	<500	<500

MW-36R									
Date	3/27/2009	6/16/2009	9/15/2009	4/30/2010	10/14/2010	4/5/2011	10/26/2011	12/15/2011	4/12/2012
Acetone	28	NA	21	<10 J	12	<10	<10	NA	6.3 J
Benzene	2.4	NA	3.1	3.3	3.9	4.3	1.8	NA	1.6
Ethylbenzene	<1.0	NA	<1.0	0.26 J	0.28 J	<1.0	<1.0	NA	0.16 J
Methylene Chloride	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<0.18
Toluene	0.80 J	NA	0.96 J	1.1	1.2	0.95 J	0.66 J	NA	0.45 J
Trichloroethene	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<0.090
Xylenes (total)	2.8 J	NA	3.2	5.4	4.8	4.4	1.4 J	NA	1.9 J
Aniline	150	460	390	77	620	310	92	120	150
N,N-Dimethylaniline	2.8	<5.0	3.1	2.6	<5.0	4.0	3.6	NA	4.1
Methanol	<500	NA	<500	<500	<500 J	NA	NA	NA	NA

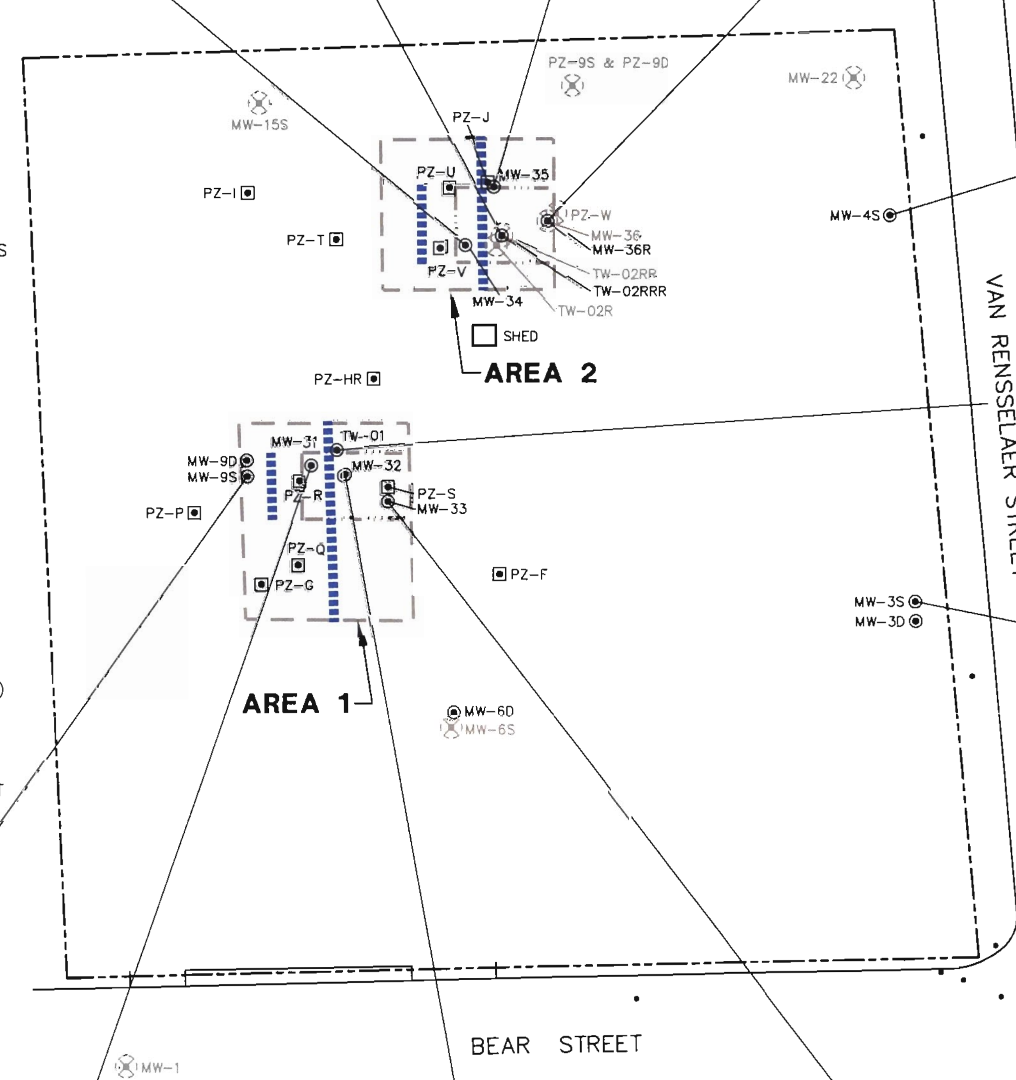
MW-4S		
Date	10/15/2010	4/11/2012
Acetone	<10 [<10]	<2.7
Benzene	<1.0 [<1.0]	<0.080
Ethylbenzene	<1.0 [<1.0]	<0.10
Methylene Chloride	<1.0 [<1.0]	<0.18
Toluene	<1.0 [<1.0]	<0.15
Trichloroethene	<1.0 [<1.0]	<0.090
Xylenes (total)	<3.0 [<3.0]	<0.36
Aniline	<5.0 [<5.0]	<1.8
N,N-Dimethylaniline	<1.0 [<1.0]	<0.21
Methanol	<500 J [<500 J]	NA

TW-01							
Date	3/26/2009	9/15/2009	4/28/2010	10/12/2010	4/4/2011	10/25/2011	4/11/2012
Acetone	<10	2.9 J	<10	<10	<10	<10	<2.7
Benzene	1.9	<1.0	0.32 J	<1.0	0.21 J	<1.0	0.11 J
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18
Toluene	<1.0	0.11 J	<1.0	<1.0	<1.0	<1.0	<0.15
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	0.60 J	<3.0	<3.0	<3.0	<3.0	<3.0 J	<0.36
Aniline	<5.0	<5.0	<5.0	<5.3	<5.3	<5.6	<1.8
N,N-Dimethylaniline	<0.50	1.1	1.0	1.3	<1.1	1.6	1.7
Methanol	22300	970	<500	<500 J	<500	<500	<500

MW-3S							
Date	3/26/2009	9/16/2009	4/28/2010	10/12/2010	4/6/2011	10/27/2011	4/11/2012
Acetone	<10	<10	<10	<10	<10	<10	<2.7
Benzene	<1.0	0.17 J	<1.0	<1.0	<1.0	<1.0	<0.080
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	0.35 J	<0.15
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<0.36
Aniline	<5.0	<5.0	<5.0	<5.2	<5.3 J	<5.0	<1.8
N,N-Dimethylaniline	<0.50	<1.0	<1.0	<1.0	<1.1 J	<1.0	<0.21
Methanol	<500	<500	<500	NA	NA	NA	NA

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 COCs WITH CURRENT OR PAST DETECTIONS ARE PRESENTED ON THIS FIGURE (SEE ATTACHMENT A FIGURES 1, 3, AND 5).
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.
14. RESULTS FOR DUPLICATE SAMPLES SHOWN IN BRACKETS NEXT TO PARENT SAMPLE RESULTS.



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
TW-02R REMOVED/DECOMMISSIONED GROUNDWATER MONITORING WELL/PIEZOMETER
APPROXIMATE BOUNDARY OF AREA
GROUNDWATER INFILTRATION TRENCH
AREA OF HISTORICALLY RELATIVELY HIGHER CONCENTRATION OF COCs

SAMPLE IDENTIFICATION

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

MW-##			
Date	Sep-06	Nov-06	Jun-07
Acetone	NA	130 J	33
Benzene	NA	3.6	4.6
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	[illegible]	[illegible]
N,N-Dimethylaniline	[illegible]	1.7 J	<10
Methanol	NA	<500	<500

CONCENTRATION (ppb)

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

0 100' 200'

GRAPHIC SCALE

MW-9S							
Date	3/26/2009	9/15/2009	4/28/2010	10/13/2010	4/5/2011	10/25/2011	4/12/2012
Acetone	<200	<10	<10	<10	<10	<10	7.5 J
Benzene	24	1.7	0.86 J	1.3	0.91 J	1.2	1.1
Ethylbenzene	550	20	26	11	29	4.2	18
Methylene Chloride	<20	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18
Toluene	50	2.2	2.1	1.9	2.6	1.8	1.5
Trichloroethene	<20	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	1300	70	69	45	89	41 J	67
Aniline	<5.0	<5.0	<5.0	<5.1	<5.3	<5.0	<1.9
N,N-Dimethylaniline	4.2	4.1	6.5	7.5	5.4	7.6	6.3
Methanol	<500	730	<500	<500 J	<500	<500	<500

MW-31							
Date	3/26/2009	9/15/2009	4/28/2010	10/13/2010	4/5/2011	10/25/2011	4/12/2012
Acetone	9.4 J	<10	<10	<10	<10	<10	6.5 J
Benzene	8.3	10	4.8	6.9	8.3	5.7	6.8
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.16 J
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18
Toluene	0.60 J	0.49 J	0.40 J	0.50 J	0.77 J	0.62 J	0.65 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	0.80 J	2.0 J	1.3 J	1.5 J	2.5 J	1.5 J	2.7 J
Aniline	<5.0	<5.0	<5.0	<5.3	<5.3	<5.0	<1.9
N,N-Dimethylaniline	2.3	2.5	2.3	3.5	2.3	3.5	2.1
Methanol	<500	730	<500	<500 J	<500	<500	<500

MW-32							
Date	3/26/2009	9/15/2009	4/28/2010	10/12/2010	4/4/2011	10/25/2011	4/11/2012
Acetone	<10	<10	<10	<10	<10	<10	<2.7
Benzene	0.50 J	<1.0	0.23 J	<1.0	<1.0	<1.0	<0.080
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	0.19 J	<0.15
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0 J	<0.36
Aniline	<5.0	<5.0	<5.0	<5.2	<5.3	<5.0	<1.8
N,N-Dimethylaniline	<0.50	1.1	0.89 J	0.87 J	<1.1	1.5	1.1
Methanol	<500	1200	<500	<500 J	<500	<500	<500

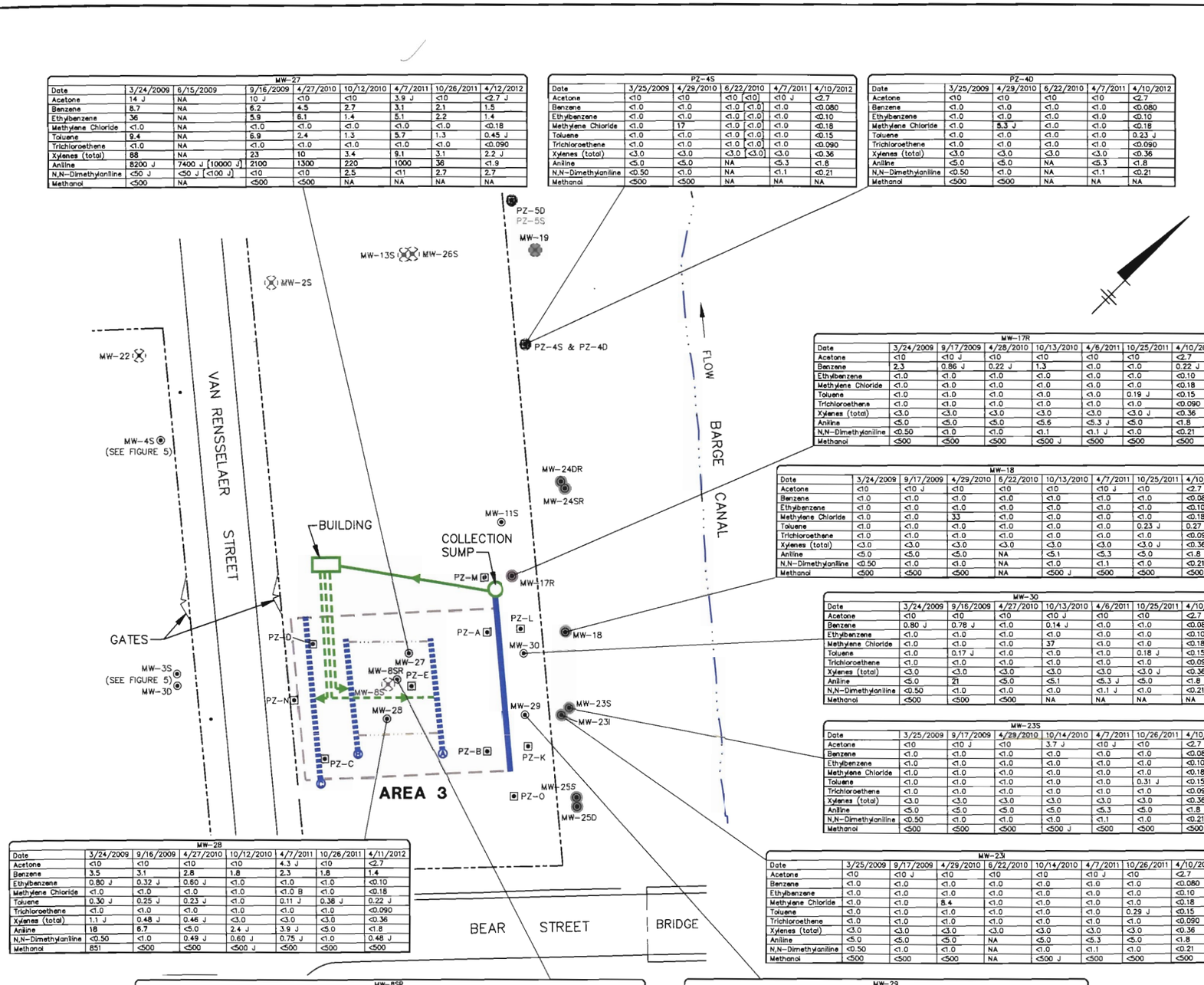
MW-33							
Date	3/26/2009	9/16/2009	4/28/2010	10/12/2010	4/5/2011	10/26/2011	4/11/2012
Acetone	<10	<10	<10	<10	<10	<10	<2.7
Benzene	3.2	2.6	1.6	1.7	0.79 J	0.58 J	0.11 J
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18
Toluene	<1.0	0.20 J	<1.0	<1.0	<1.0	0.12 J	<0.15
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<0.36
Aniline	<5.0	<5.0	<5.0	<5.1	<5.3	<5.3	<1.8
N,N-Dimethylaniline	2.4	<1.0	2.0	2.7	1.9	1.9	1.3
Methanol	<500	<500	<500	NA	NA	NA	NA

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

GROUNDWATER MONITORING DATA SUMMARY FOR MARCH 2009 - APRIL 2012 AREAS 1 & 2 (AEROBIC TREATMENT)

ARCADIS

FIGURE 5



MW-27

Date	3/24/2009	6/15/2009	9/16/2009	4/27/2010	10/12/2010	4/7/2011	10/26/2011	4/12/2012
Acetone	14 J	NA	10 J	<10	<10	3.9 J	<10	<2.7 J
Benzene	8.7	NA	6.2	4.5	2.7	3.1	2.1	1.5
Ethylbenzene	36	NA	5.9	8.1	1.4	5.1	2.2	1.4
Methylene Chloride	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18
Toluene	9.4	NA	6.9	2.4	1.3	5.7	1.3	0.45 J
Trichloroethene	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	88	NA	23	10	3.4	9.1	3.1	2.2 J
Aniline	8200 J	7400 J [10000 J]	2100	1300	220	1000	36	<1.9
N,N-Dimethylaniline	<50 J	<50 J [<100 J]	<10	<10	2.5	<11	2.7	2.7
Methanol	<500	NA	<500	<500	NA	NA	NA	NA

PZ-4S

Date	3/25/2009	4/29/2010	6/22/2010	4/7/2011	4/10/2012
Acetone	<10	<10	<10 [<10]	<10 J	<2.7
Benzene	<1.0	<1.0	<1.0 [<1.0]	<1.0	<0.080
Ethylbenzene	<1.0	<1.0	<1.0 [<1.0]	<1.0	<0.10
Methylene Chloride	<1.0	17	<1.0 [<1.0]	<1.0	<0.18
Toluene	<1.0	<1.0	<1.0 [<1.0]	<1.0	<0.15
Trichloroethene	<1.0	<1.0	<1.0 [<1.0]	<1.0	<0.090
Xylenes (total)	<3.0	<3.0	<3.0 [<3.0]	<3.0	<0.36
Aniline	<5.0	<5.0	NA	<5.3	<1.8
N,N-Dimethylaniline	<0.50	<1.0	NA	<1.1	<0.21
Methanol	<500	<500	NA	NA	NA

PZ-4D

Date	3/25/2009	4/29/2010	6/22/2010	4/7/2011	4/10/2012
Acetone	<10	<10	<10	<10	<2.7
Benzene	<1.0	<1.0	<1.0	<1.0	<0.080
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	5.3 J	<1.0	<1.0	<0.18
Toluene	<1.0	<1.0	<1.0	<1.0	0.23 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<0.36
Aniline	<5.0	<5.0	NA	<5.3	<1.8
N,N-Dimethylaniline	<0.50	<1.0	NA	<1.1	<0.21
Methanol	<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	4/10/2012
Acetone	<10	<10 J	<10	<10	<10	<10	<2.7
Benzene	2.3	0.86 J	0.22 J	1.3	<1.0	<1.0	0.22 J
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	0.19 J	<0.15
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0 J	<0.36
Aniline	<5.0	<5.0	<5.0	<5.6	<5.3 J	<5.0	<1.8
N,N-Dimethylaniline	<0.50	<1.0	<1.0	<1.1	<1.1 J	<1.0	<0.21
Methanol	<500	<500	<500	<500 J	<500	<500	<500

MW-18

Date	3/24/2009	9/17/2009	4/29/2010	6/22/2010	10/13/2010	4/7/2011	10/25/2011	4/10/2012
Acetone	<10	<10 J	<10	<10	<10	<10 J	<10	<2.7
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.080
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	<1.0	33	<1.0	<1.0	<1.0	<1.0	<0.18
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.23 J	0.27 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0 J	<0.36
Aniline	<5.0	<5.0	<5.0	NA	<5.1	<5.3	<5.0	<1.8
N,N-Dimethylaniline	<0.50	<1.0	<1.0	NA	<1.0	<1.1	<1.0	<0.21
Methanol	<500	<500	<500	NA	<500 J	<500	<500	<500

MW-30

Date	3/24/2009	9/16/2009	4/27/2010	10/13/2010	4/6/2011	10/25/2011	4/10/2012
Acetone	<10	<10	<10	<10 J	<10	<10	<2.7
Benzene	0.80 J	0.78 J	<1.0	0.14 J	<1.0	<1.0	<0.080
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	<1.0	<1.0	37	<1.0	<1.0	<0.18
Toluene	<1.0	0.17 J	<1.0	<1.0	<1.0	0.18 J	<0.15
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0 J	<0.36
Aniline	<5.0	21	<5.0	<5.1	<5.3 J	<5.0	<1.8
N,N-Dimethylaniline	<0.50	<1.0	<1.0	<1.0	<1.1 J	<1.0	<0.21
Methanol	<500	<500	<500	NA	NA	NA	NA

MW-23S

Date	3/25/2009	9/17/2009	4/29/2010	10/14/2010	4/7/2011	10/26/2011	4/10/2012
Acetone	<10	<10 J	<10	3.7 J	<10 J	<10	<2.7
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.080
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	0.31 J	<0.15
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<0.36
Aniline	<5.0	<5.0	<5.0	<5.0	<5.3	<5.0	<1.8
N,N-Dimethylaniline	<0.50	<1.0	<1.0	<1.0	<1.1	<1.0	<0.21
Methanol	<500	<500	<500	<500 J	<500	<500	<500

MW-23I

Date	3/25/2009	9/17/2009	4/29/2010	6/22/2010	10/14/2010	4/7/2011	10/26/2011	4/10/2012
Acetone	<10	<10 J	<10	<10	<10	<10 J	<10	<2.7
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.080
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	<1.0	8.4	<1.0	<1.0	<1.0	<1.0	<0.18
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.29 J	<0.15
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<0.36
Aniline	<5.0	<5.0	<5.0	NA	<5.0	<5.3	<5.0	<1.8
N,N-Dimethylaniline	<0.50	<1.0	<1.0	NA	<1.0	<1.1	<1.0	<0.21
Methanol	<500	<500	<500	NA	<500 J	<500	<500	<500

MW-28

Date	3/24/2009	9/16/2009	4/27/2010	10/12/2010	4/7/2011	10/26/2011	4/11/2012
Acetone	<10	<10	<10	<10	4.3 J	<10	<2.7
Benzene	3.5	3.1	2.8	1.8	2.3	1.8	1.4
Ethylbenzene	0.80 J	0.32 J	0.60 J	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0 B	<1.0	<0.18
Toluene	0.30 J	0.25 J	0.23 J	<1.0	0.11 J	0.38 J	0.22 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	1.1 J	0.48 J	0.46 J	<3.0	<3.0	<3.0	<0.36
Aniline	18	6.7	<5.0	2.4 J	3.9 J	<5.0	<1.8
N,N-Dimethylaniline	<0.50	<1.0	0.49 J	0.60 J	0.75 J	<1.0	0.48 J
Methanol	851	<500	<500	<500 J	<500	<500	<500

MW-8SR

Date	3/24/2009	6/15/2009	9/16/2009	4/27/2010	10/12/2010	4/7/2011	10/26/2011	4/12/2012
Acetone	6.5 J [5.8 J]	NA	<10 [8.3 J]	<10 [<10]	<10	5.9 J [4.3 J]	<10 [<10]	8.7 J [6.7 J]
Benzene	6.8 [6.8]	NA	8.5 J [7.9]	4.2 [3.5]	2.7	3.2 [3.2]	1.9 [2.0]	1.2 [1.7]
Ethylbenzene	66 [63]	NA	44 J [38]	23 J [18]	16	10 [8.8]	2.0 [2.1]	2.3 [3.3]
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]	<0.18 [<0.18]
Toluene	10 [10]	NA	6.8 J [6.5]	4.6 [3.7]	2.0	2.6 [2.6]	1.3 [1.3]	0.75 J [1.2]
Trichloroethene	<1.0 [<1.0]	NA	<1.0 J [<1.0]	<1.0 [<1.0]	<1.0	<1.0 [<1.0]	<1.0 [<1.0]	<0.090 [<0.090]
Xylenes (total)	140 [140]	NA	81 J [71]	41 [33]	31	32 [31]	14 [15]	9.5 [15]
Aniline	2200 [1800]	7000 J	4000 [3400]	370 J [720 J]	220	57 J [64]	<5.0 [<5.0]	<1.9 [<1.9]
N,N-Dimethylaniline	<12 [<12]	<50 J	<20 [<20]	1.0 J [<5.0]	1.6	1.5 [1.6]	2.6 [<1.0]	2.4 [2.6]
Methanol	<500 [<500]	NA	<500 [<500]	<500 [<500]	NA	NA	NA	NA

MW-29

Date	3/24/2009	9/16/2009	10/12/2010	4/27/2010	4/6/2011	10/25/2011	4/11/2012
Acetone	<10	<10	<10	<10	<10	<10	<2.7
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.080
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.18
Toluene	<1.0	0.16 J	<1.0	<1.0	<1.0	0.22 J	<0.15
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.090
Xylenes (total)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0 J	<0.36
Aniline	<5.0	<5.0	<5.0	<5.2	<5.3 J	<5.0	<1.8
N,N-Dimethylaniline	<0.50	0.29 J	<1.0	<1.0	<1.1 J	0.22 J	<0.21
Methanol	<500	<500	<500	NA	NA	NA	NA

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- 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
- MW-8S 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 COCs WITH CURRENT OR PAST DETECTIONS ARE PRESENTED ON THIS FIGURE (SEE ATTACHMENT A FIGURES 2, 4, AND 6).
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.
14. RESULTS FOR DUPLICATE SAMPLES SHOWN IN BRACKETS NEXT TO PARENT SAMPLE RESULTS.

SAMPLE IDENTIFICATION

PZ-M

Date	Jun-06	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	<5.0	<5.0	NA	<5.3
N,N-Dimethylaniline	<1.0	<1.1	<0.50	<0.50	<1.0	NA	<1.1
Methanol	<1000	<500	NA	NA	<500	NA	NA

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

CONCENTRATION (ppb)

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

0 100' 200'

GRAPHIC SCALE

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

GROUNDWATER MONITORING DATA SUMMARY FOR MARCH 2009 - APRIL 2012 AREA 3 (AEROBIC TREATMENT)

ARCADIS

FIGURE 6

ARCADIS

Attachment A

Table 1. Summary of Historical Groundwater Level Measurements, June 1988 through June 2006

Table 2. Summary of Historical Groundwater Monitoring Data, March 1988 through August 2008

Figures 1 – 6. 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	890 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

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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-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	6 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

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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[B]	1/89	354.8	345.2	<100,000	<1,000	<1,000	<1,000	<1,000	12,000	<1,000	87	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)[D]	110 (<5)[D]	<5
	10/02			<25 J	14	<10	<10	<20	<1,000	<10	<5[D]	<5[D]	<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)[I]	200 D (<5)[I]	<10
	10/02			6 J	<10	<10	<10	<20	<1,000	<10	<5[H]	<5[H]	<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[C]	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	<5.8	<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

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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	<0.6	<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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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	5 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 (36,000)	<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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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	18	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	<5	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[B]	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

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-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	0.5 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	<5.0	0.6	<3.0
TW-02[C]	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	10	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,
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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
TW-02RR[BE]	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	<5	<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)	<5 (<5)[F]	<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
	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

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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
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[M]	<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[O]	<5[O]	<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[M]	<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[O]	<5[O]	<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	<10	<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[O]	11/89	352.09	347.19	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
PZ-11S[O]	11/89	359.09	354.19	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
PZ-12D[O]	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[O]	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 boid-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.)

MW-35

Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Benzene	<10	0.7 J	<10	<10 J	<10	<10	<5	<10	<5
Aniline	6 J	3 J	<10	<10	<10	<10	3 J	2 J	1,000
N,N-dimethylaniline	5 J	4 J	2 J	3 J	<10	2 J	4 J	R	<100
Acetone	<10	<10	<10 J	<10 J	<10	<10	<13	<25	<12

MW-36

Date	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	<10	8 J	<10 J	5 J	<10	54	<20	12 J	9 J
Benzene	<10	<10	0.8 J	<10	<10 J	<10	<10	<5	<10	<5
Aniline	290 D	860 D	250	60	8 J	<10	350 D	9	2 J	67
N,N-dimethylaniline	6 J	4 J	<10	7 J	6 J	<10	5 J	41	2 J	4 J
Methylene Chloride	<10	<10	<10	<10	2 J	<10	<10	<5	<10	<5

TW-02R

Date	12/96	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	53	<500 J	<1,000	630	<1,000 J	190 J	81	57	240	110 J	240
Benzene	10	<500 J	<1,000	37	<1,000	28 J	19	25	19	15	30
Toluene	77	<500 J	190 J	240 J	160 J	95 J	68	70	65	19	130
Ethylbenzene	16	<500 J	<1,000	31	<1,000	35 J	28	31	23	23	49
Xylene	65	140 J	150 J	150	240 J	160 J	130	140	96	65	226
Methanol	<1,000	5,000	14,000 JN	<1,000	<1,000 J	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000
Trichloroethene	585 D	300 J	<1,000	55	<1,000	6 J	<10	<20	<5	<10	<5
Aniline	15,900 JD	38,000 D	83,000 D	100,000 D	64,000 D	79,000	67,000 D	63,000 D	1,090,000 D	80,000 D	160,000 D
N,N-dimethylaniline	3,920 D	61,000 D	7,900	3,500 J	3,900	<10,000	650 J	32	<5,300	10 J	230
Methylene Chloride	42,449 D	86,000 D	14,000 B	9,700 D	13,000	390 J	400 D	48 B	14	<10	97

MW-34

Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	2 J	<10 J	<10 J	<10	7 J	<32	37 J	16
Benzene	<10	0.9 J	1 J	<10 J	<10	2 J	<5	<10	<5
Toluene	<10	1 J	2 J	<10 J	2 J	2 J	<5	<10	<5
Xylene	<10	<10	<10	<10 J	2 J	2 J	<10	<20	<10
Aniline	83	380 D	200 D	320 D	700 D	76	640 D	380 DJ	140
N,N-dimethylaniline	<10	2 J	3 J	4 J	5 J	3 J	15	2 J	3 J

TW-01

Date	12/96	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Benzene	82	15	24	16	16	11 J	5 J	10	3 J	7 J	7
Toluene	4 J	<10	2 J	1 J	<10	<10 J	<10	<10	<5	<10	<5
Ethylbenzene	6 J	4 J	2 J	3 J	<10	<10 J	<10	<10	<5	<10	<5
Xylene	4 J	<10	2 J	<10	<10	<10 J	<10	<10	<10	<20	<10
Aniline	2,090 D	4,400 DEJ	9,000 D	4,400 D	280 D	15	<10	<10	8	<5	<5
N,N-dimethylaniline	13	4 J	5 J	4 J	4 J	2 J	3 J	2 J	13	R	1 J
Methylene Chloride	4 J	<10	<10	<10	<10	<10 J	<10	<10	<5	<10	<5
Acetone	<10	<10	<10	<10	<10	<10 J	<10	<10	<14	<25	<12

MW-31

Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	<10	<10	<10 J	21	<10	<14	<25	<12
Benzene	12	16	16	12 J	11	14	9	11	9
Aniline	34	230 D	3 J	10	<10	91 D	804 D	560 D	0.9 J
N,N-dimethylaniline	4 J	3 J	4 J	6 J	5 J	3 J	21	1 J	3 J

MW-9S

Date	1/89	11/89	11/91	8/95	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	1,600	<1,000	<100	<1,000	<10	<10	<10 J	<10	<10	<23	16 J	<12
Benzene	NA	48	<10	11 JD	4 J	2 J	11 J	1 J	10	10	38	11
Toluene	64	25	9	26 JD	2 J	2 J	2 J	3 J	3 J	2 J	40	<5
Ethylbenzene	130	60	19	69 D	9 J	11	6 J	17	7 J	6	2 J	7
Xylene	270	60	30	226 JD	18	21	18 J	61	35	17 J	15 J	18
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000 J	370 J	<1,000	<1,000
Aniline	660	670	95	50	<10	2 J	1 J	2 J	<10	9	<5	0.9 J
N,N-dimethylaniline	1,200	150	18	28	5 J	9 J	6 J	11	10	43	2 J	3 J
Methylene Chloride	1,500	<10	<1	110 D	<10	<10	<10 J	<10	<10	<5	<10	<5

MW-32

Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	3 J	<10	<10 J	<10	<10	<15	<25	<12
Benzene	16	14	5 J	12 J	5 J	10	4 J	4 J	<5
Toluene	2 J	2 J	<10	<10 J	<10	<10	<5	<10	<5
Ethylbenzene	5 J	4 J	<10	<10 J	<10	<10	<5	<10	<5
Xylene	3 J	<10	<10	<10 J	<10	<10	<10	<20	<10
Trichloroethene	<10	56	<10	<10 J	<10	<10	<5	<10	<5
Aniline	6,300 D	<10	800 D	4,500 D	1,900 D	1,100 D	4,620 D	50	0.6 J
N,N-dimethylaniline	4 J	3 J	<10	<10	2 J	2 J	11	R	0.7 J

MW-33

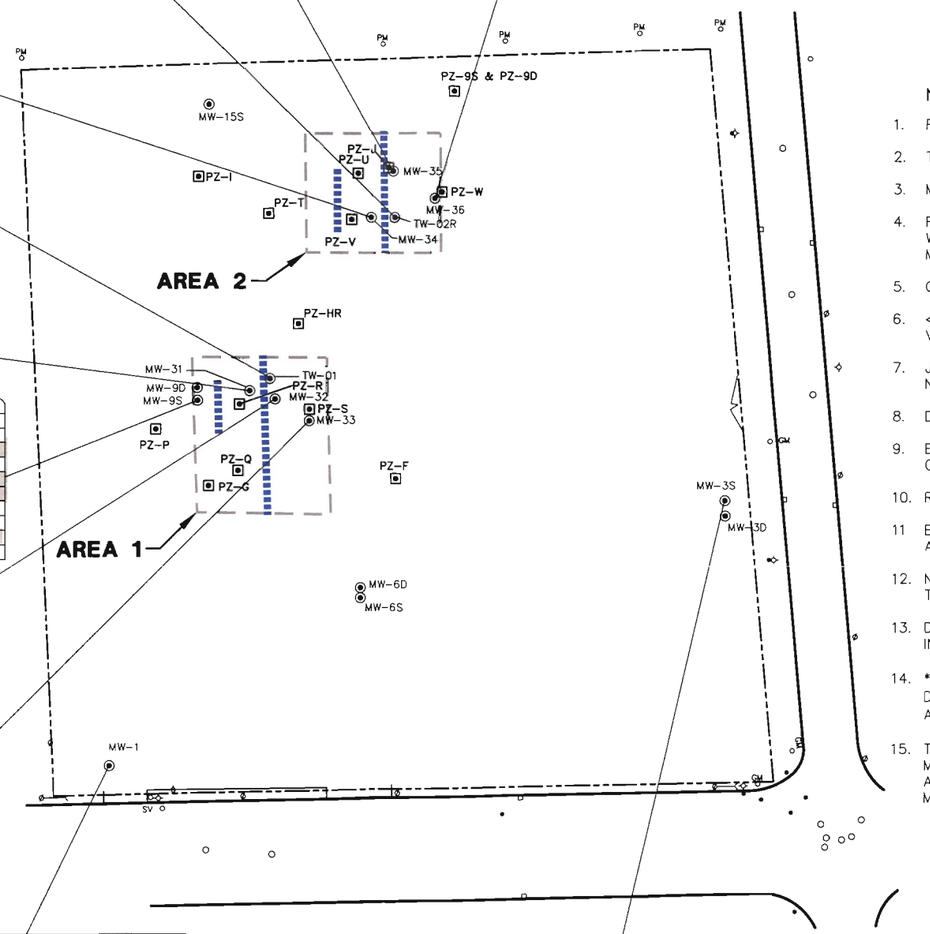
Date	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	<10	5 J	<10 J	45 J	17 J	21	<18	11 J	88
Benzene	<10	<10	2 J	<10	4 J	<20	5 J	3 J	4 J	13
Toluene	<10	<10	0.7 J	<10	1 J	<20	<10	<5	<10	<5
Aniline	9 J	120	150	51	540 D	1,300 D	1,900 D	2,780 D	290 D	2,000
N,N-dimethylaniline	6 J	6 J	8 J	7 J	23	16	12	21	3 J	35 J
Methylene Chloride	<10	<10	5 J	11	330 DJ	370 B	<18	19	4 J	2,800 D

MW-1

Date	3/88	1/89	11/89	11/90	11/91	11/92	8/95	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<100	<100	<100	<100	<100	<100	<1,000	<10	0.7 JN	<10	8 J	<10	<10	<12	<25	<12
Toluene	<1	<1	<1	<1	<1	<1	<5	<10	<10	<10	3 J	<10	<10	<5	<10	<5
Xylene	<1	<1	<1	<3	<3	<3	<5	<10	<10	<10	5 J	<10	<10	<10	<20	<10
Methylene Chloride	<1	<1	<1	<1	<1	<1	<10	<10	<10	<10	<10 J	10	<10	<5	<10	<5
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000 J	990 J	<1,000	<1,000
Aniline	<10	<11	<10	<10	<10	<10	<5	<10	<10	<5	<10 J	<10	<10	<5	<5	<5

MW-3S

Date	3/88	1/89	11/89	11/91	8/95	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<100	<10,000	<10,000	2,900	<1,000	<10	<10	<10 J	<10 J	<10	<10	<12	<25	<12
Benzene	<1	<100	<100	10	<5	<10	1 J	<10	1 J	<10	3 J	<5	<10	<5
Toluene	<1	120	<100	10	<5	<10	0.7 J	<10	2 J	<10	8 J	<5	<10	<5
Ethylbenzene	<1	<100	<100	4	<5	<10	<10	<10	<10 J	<10	1 J	<5	<10	<5
Xylene	<1	<100	<100	31	<5	<10	<10	<10	<10 J	<10	2 J	<10	<20	<10
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000 J	370 J	<1,000	<1,000
Trichloroethene	50	1,100	100	<10	<5	<10	<10	<10	<10 J	<10	<10	<5	<10	<5
Aniline	<10	<11	<52	790	15	<10	9 J	<10	2 J	<10	690 D (69*)	1.7 J	<5	<5
N,N-dimethylaniline	<10	5,570	440	170	2 J	<10	<10	<10	1 J	<10	4 J	<5	R	<5
Methylene Chloride	110	4,700	2,700	<10	<10	<10	<10	<10	<10 J	<10	<10	<5	<10	<5



LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER INFILTRATION TRENCH

SAMPLE IDENTIFICATION

MW-35

Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Benzene	<10	0.7 J	<10	<10 J	<10	<10	<5	<10	<5
Aniline	6 J	3 J	<10	<10	<10	<10	3 J	2 J	1,000
N,N-dimethylaniline	5 J	4 J	2 J	3 J	<10	2 J	4 J	R	<100
Acetone	<10	<10	<10 J	<10 J	<10	<10	<13	<25	<12

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 DETECTED COCs ARE PRESENTED ON THIS FIGURE.
6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
8. D = CONCENTRATION IS BASED ON DILUTED SAMPLE ANALYSIS.
9. E = IDENTIFIES COMPOUNDS WHOSE CONCENTRATIONS EXCEED THE CALIBRATION RANGE OF THE INSTRUMENTS.
10. R = THE SAMPLE RESULT WAS REJECTED.
11. B = THE COMPOUND HAS BEEN FOUND IN THE SAMPLE AS WELL AS IN ITS ASSOCIATED BLANK; ITS PRESENCE IN THE SAMPLE MAY BE SUSPECT.
12. N = THIS ANALYSIS INDICATES THE PRESENCE OF A COMPOUND FOR WHICH THERE IS PRESUMPTIVE EVIDENCE TO MAKE AN TENTATIVE IDENTIFICATION.
13. DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.
14. *= MW-3S WAS RESAMPLED ON 11/8/01 DUE TO ANILINE DETECTION DURING 9/2001 SAMPLING EVENT AT A CONCENTRATION OF 690 PPB. ANILINE WAS DETECTED ON 11/8/01 AT A CONCENTRATION OF 69 PPB.
15. THE 10/02 SAMPLING EVENT N,N-DIMETHYLANILINE DATA FOR MW-1, MW-3S, MW-32, MW-35, AND TW-01 WERE REJECTED DUE TO MATRIX SPIKE AND MATRIX SPIKE DUPLICATE RECOVERIES BELOW CONTROL LIMITS. THESE MONITORING WELLS WERE NOT RESAMPLED.

0 100' 200'

GRAPHIC SCALE

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

GROUNDWATER MONITORING DATA SUMMARY FOR 1988 - MAY 2003 AREAS 1 & 2

ARCADIS

FIGURE 1

GROUNDWATER MONITORING DATA SUMMARY FOR 1988 - MAY 2003 AREA 3

MW-27									
Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	23	<10 J	<10 J	<10 J	<10	<10	<18	9 J	<12
Benzene	3 J	4 J	6 J	4 J	5 J	5 J	7	3 J	8
Toluene	4 J	2 J	<10	<10	<10	<10	11	<10	11
Ethylbenzene	<10	3 J	8 J	3 J	5 J	2 J	12	<10	23
Xylene	3 J	8 J	2 J	1 J	2 J	<10	26	<20	51
Aniline	340 DJ	740 D	110 D	16 J	260 D	26	176,000 DJ	2,700 D	15,000 DJ
N,N-dimethylaniline	<10	<10	1 J	2 J	2 J	<10	19 J	100 J	11
Methylene Chloride	<10	<10	<10	1 J	<10	<10	<5	60 JN	43
Trichloroethene	<10	<10	<10	<10 J	<10	<10	<5	4 J	<5

PZ-5S										
Date	11/89	12/94	2/96	2/97	9/98	6/99	7/99	9/00	9/01	10/02
Acetone	<100	<10	<1,000	5 J	<10	<10 J	<10 J	<10 J	7 J	<25 J^

PZ-5D									
Date	11/89	12/94	2/96	2/97	9/98	7/99	9/00	9/01	10/02
Aniline	<10	<5	<5	<5	<5	<10	<10 J	<10	<5^

MW-19																	
Date	11/89	12/94	8/95	2/96	8/96	2/97	8/97	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
N,N-dimethylaniline	<10	<10	<10	<10	<10	<10	<10	5 J	<10	<10	<10	<10	<10	<10	<5	<5^	<5
Acetone	<100	<10	<1,000	<1,000	<10	<10	<10	<10	<10	<10 J	<10	<10 J	<10	<10	<10	<25 J	<12
Aniline	<10	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10 J	<10	<10	<5	<5	<5

PZ-4S														
Date	11/89	11/90	11/91	11/92	8/95	8/96	8/97	2/99	6/99	3/00	3/01	4/02	10/02	5/03
Aniline	<10	<10	<10	<10	<5	<5	<6	<10	<5	<5	<10	8 (<5)**	<5^	<5
N,N-dimethylaniline	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	3 J	<5 (<5)**	<5^	<5

PZ-4D														
Date	11/89	11/90	11/91	11/92	8/95	10/95	8/96	8/97	2/99	3/00	9/00	3/01	4/02	5/03
N,N-dimethylaniline	<10	<10	<10	<10	0.8 J	<10	<10	<12	<10	<10	<10	<10	<5	<5

MW-24DR									
Date	12/94	8/95	2/96	2/97	9/98	7/99	9/00	9/01	6/02	10/02
Aniline	<5	<5	<5	<5	<5	<10	<10 J	<10	ND**	<5^

MW-24SR										
Date	12/94	8/95	2/96	2/97	9/98	6/99	7/99	3/00	9/01	6/02	10/02
Aniline	<5	<5	<5	<5	<5	<10 J	<10	<10 J	<10	ND**	<5^

MW-17R															
Date	11/90	11/91	11/92	8/95	10/95	8/96	8/97	2/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<100	<100	<100	<1,000	NA	11	<10	<10	<10	<10 J	<10	<10	<10	<25 J	<12
Benzene	<1	<1	<1	<5	<5	<10	<10	1 J	8 J	15 J	8 J	5 J	6	14	8
Trichloroethene	<1	<1	<1	<5	2J	<10	<10	<10	<10	<10 J	<10	<10	<5	<10	<5
Methanol	<1,000	<1,000	<1,000	<1,000	NA	1,000	1,000	1,000	<1,000 J	<1,000 J	<1,000	<1,000	620 J	<1,000	<1,000
Aniline	<10	<10	<10	<5	NA	<5	<5	<10	<5	24 J	<10	<10	150 (<5)**	<5^	<5
N,N-dimethylaniline	<10	<10	<10	<10	NA	<10	<10	<10	<10	4 J	<10	<10	110 (<5)**	<5^	<5
Methylene Chloride	<1	<1	<1	<11	<5	<10	<10	<10 J	<10	1 J	<10	<10	<5	<10	<5

MW-30										
Date	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	7 J	<10	<10	<10 J	<10	4 J	<10	<25 J	<62
Benzene	<10	<10	0.7 J	<10	<10 J	<10	2 J	<5	<10	<25
Trichloroethene	<10	<10	0.5 J	<10	<10 J	<10	<10	<5	<10	<25
Aniline	<10	<10	<10	18	9 J	8 J	8 J	250	R	18
N,N-dimethylaniline	<10	2 J	1 J	2 J	2 J	2 J	1 J	210	R	0.6 J
Methylene Chloride	<10	<10	<10	4 J	2 J	<10	<10	<5	<10	8 J

MW-18																			
Date	11/89	11/90	11/91	11/92	12/94	8/95	2/96	8/96	2/97	8/97	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Methanol	<1,000	<1,000	<1,000	<1,000	<200	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000 J	<1,000	<1,000	720 J	<1,000	280 J
Aniline	<10	<10	<10	<10	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10 J	<10	<10	280 D (<5)**	<5^	<5
N,N-Dimethylaniline	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	200 D (<5)**	<5^	<5
Acetone	<100	<100	<100	<100	<10	<1,000	<1,000	<10	<10	<10	<10	<10	<10 J	<10	<10 J	<10	<10	<10	6 J	<12

MW-29										
Date	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	7 J	<10	<10	<10 J	<10	<10	<10	<25 J	<12
Xylene	2 J	1 J	<10	<10	<10 J	<10	<10	<10	<20	<10
Aniline	<10	5 J	2 J	450 D	24 J	30	7 J	3 J	8	19
N,N-dimethylaniline	13	4 J	4 J	6 J	4 J	4 J	2 J	9	R	1 J
Methylene Chloride	<10	<10	<10	<10	<10 J	<10	<10	<6	4 JN	<3

MW-23S																	
Date	12/94	8/95	2/96	8/96	2/97	8/97	9/98	2/99	6/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	<1,000	<1,000	<10	<10	12	<10	<10	<10 J	<10 J	<10	<10 J	<10	<10	<10	<25 J	<62
Aniline	<5	<5	<5	7	11	92	56	<10	<10 J	<10	<5	<10 J	<10	<10	<5	<5^	<5
N,N-dimethylaniline	<10	<10	<10	<10	<10	<10	7 J	10	2 J	<10	2 J	2 J	<10	<10	<5	<5^	<5
Methanol	<200	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000	<1,000 J	<1000 J	<1,000	<1,000	<1,000	<1,000	380 J

MW-23I																
Date	12/94	8/95	2/96	8/96	2/97	8/97	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<10	<1,000	<1,000	<10	<10	<10	<10	<10	<10 J	<10	<10 J	<10	4 J	<10	<25 J	<12
Xylene	<5	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	2 J	<10	<20 J	<5
Methylene Chloride	<5	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10 J	<10	<10	2 J	<10	<5
Aniline	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10 J	<10	<10	<5	<5	<5

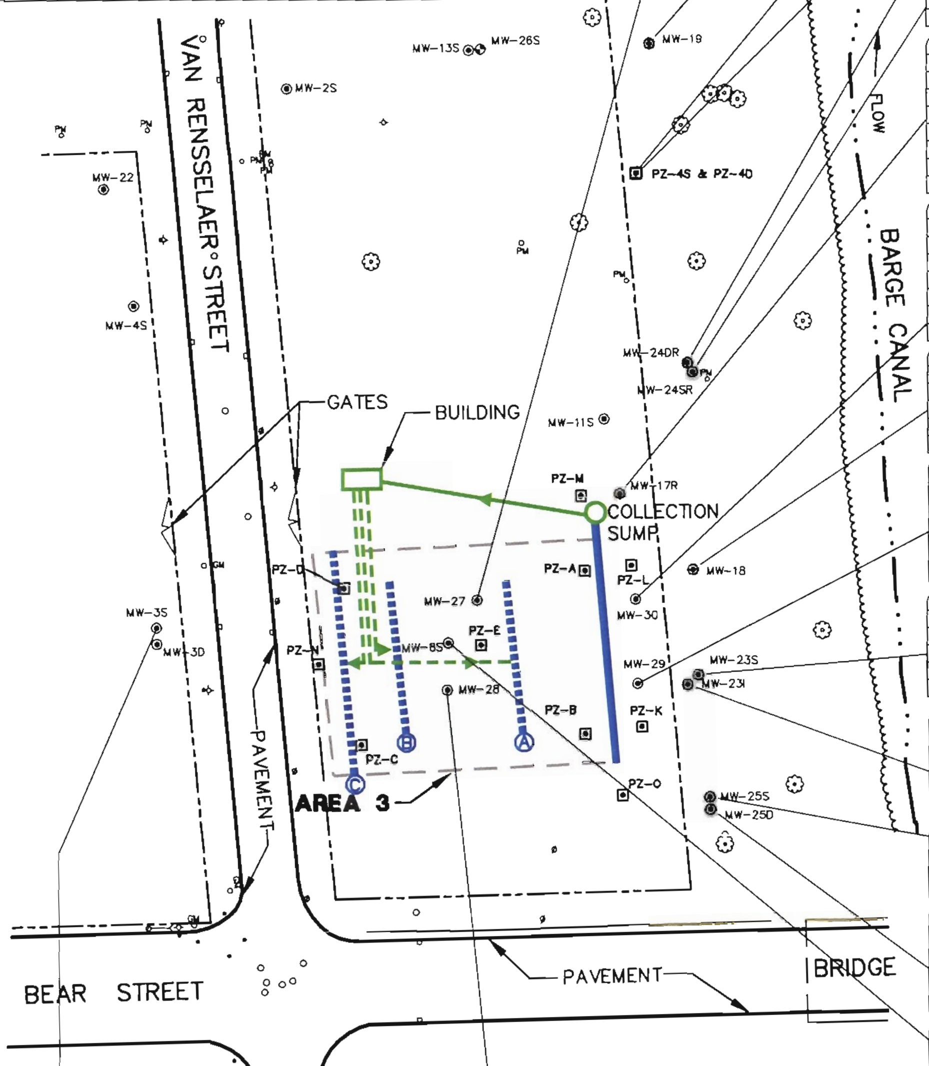
MW-25S														
Date	8/95	10/95	8/96	8/97	2/99	6/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Aniline	<5	<5	<5	<5	130	110 J	5 J	<5	<10 J	<10	<10	<5	<5^	<5
N,N-dimethylaniline	0.7 J	<10	<10	<10	<10	21 J	<10	<10	<10	<10	<10	<5	<5^	<5

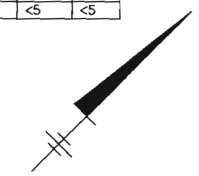
MW-25D										
Date	8/95	10/95	8/96	8/97	2/99	3/00	9/00	3/01	4/02	5/03
Acetone	<1,000	NA	15	<10	<10	<10	<10	<10	<10	<12
Trichloroethene	<5	3 J	<10	<10	<10	<10	<10	<10	<5	<5
N,N-dimethylaniline	1 J	<10	<10	<11	<10	<10	<10	<10	<5	<5
Aniline	<5	<5	<5	<5	<5	<10	<5	5 J	<5	<5

MW-8S														
Date	1/89	11/89	11/91	8/95	9/98	2/99	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<1,000,000	470,000	<1,000,000	<1,000	<10,000 J	<20,000	10 J	<100,000	<50,000 J	<50,000	<400	2,100	120 J	<12
Benzene	<10,000	<10,000	<10,000	<250,000 D	<10,000	<20,000	22 J	<100,000	<50,000 J	<50,000	<400	50 J	23	20 J
Toluene	<10,000	<10,000	<10,000	<250,000 D	<10,000	<20,000	240 J	<100,000	<50,000 J	<50,000	430	410	310	600 D
Ethylbenzene	<10,000	<10,000	<10,000	<250,000 D	<10,000	<20,000	58 J	<100,000	<50,000 J	<50,000	170 J	100 J	73	81
Xylene	<10,000	<10,000	<30,000	<250,000 D	<10,000	<20,000	220 J	<100,000	<50,000 J	<50,000	680	400	267	300
Methanol	430,000	300,000	150,000	22,000	7,900	16,000 JN	17,000	30,000 J	14,000 J	53,000	8,900 J	<1,000	<1,000	<1,000
Trichloroethene	<10,000	<10,000	<10,000	60,000 JD	3,300 J	11,000 J	11,000 J	<100,000	9,200 J	11,000 J	18,000 JD	9,600 J	3,100	6,700 D
Aniline	2,900	8,500	8,000	<25,000 D	1,200 J	30,000 D	24,000	62,000	42,000 J	90,000 D	21,000	793,000 D	80,000	79,000 D
N,N-dimethylaniline	24,000	52,000	33,000	380,000 D	26,000 D	120,000 D	77,000	270,000 D	59,000	120,000 D	29,000	773,000 D	21,000 J	29 J
Methylene Chloride	3,200,000	2,800,000	1,600,000	7,700,000 D	140,000	650,000 DB	450,000 D	1,300,000	540,000 BJ	990,000	440,000 BD	660,000 D	320,000	910,000 D

MW-28									
Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Benzene	<5,000	<500	<10,000	<1,000 J	<400	<400	8	8 J	4 J
Toluene	<5,000	<500	<10,000	<1,000 J	<400	<400	6	6 J	2 J
Ethylbenzene	<5,000	<500	<10,000	<1,000 J	<400	<400	9	11	2 J
Xylene	<5,000	<500	<10,000	<1,000 J	<400	<400	10 J	12 J	8 J
Methanol	2,200	<1,000	<1,000 J	<1,000 J	<1,000	<1,000 J	<1,000	<1,000	<1,000
Aniline	546 D	1,100 D	1,300 D	540 DJ	3,200 D	1,000 D	33,400 D	2,700 D	1,000 DJ
N,N-dimethylaniline	54	40	30	<10	7 J	<10	57	R	3 J
Methylene Chloride	64,000 J	39,000 D	130,000 J	8,100 BJ	5,900 B	4,700 B	4,600 D	<10	52
Acetone	<5,000 J	<500 J	<10,000	<1,000 J	<400	<400	<49	14 J	13

MW-3S														
Date	3/88	1/89	11/89	11/91	8/95	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03
Acetone	<100	<10,000	<10,000	2,900	<1,000	<10	<10	<10 J	<10 J	<10	<10	<12	<25	<12
Benzene	<1	<100	<100	10	<5	<10	1 J	<10	1 J	<10	3 J	<5	<10	<5
Toluene	<1	120	<100	10	<5	<10	0.7 J	<10	2 J	<10	8 J	<5	<10	<5
Ethylbenzene	<1	<100	<100	4	<5	<10	<10	<10	<10 J	<10	1 J	<5	<10	<5
Xylene	<1	<100	<100	31	<5	<10	<10	<10	<10 J	<10	2 J	<10	<20	<10
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J	<1,000	<1,000	<1,000 J	370 J	<1,000	<1,000
Trichloroethene	50	1,100	100	<10	<5	<10	<10	<10	<10 J	<10	<10	<5	<10	<5
Aniline	<10	<11	<52	790	15	<10	8 J	<10	2 J	<10	690 D (69*)	1.7 J	<5	<5
N,N-dimethylaniline	<10	5,570	440	170	2 J	<10	<10	<10	1 J	<10	4 J	<5	R	<5
Methylene Chloride	110	4,700	2,700	<10	<10	<10	<10	<10	<10 J	<10	<10	<5	<10	<5





0 120' 240'

GRAPHIC SCALE

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PM o PETROLEUM PIPE LINE MARKER
- GM o 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
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH
- PIPING TO BUILDING
- PIPING FROM BUILDING

SAMPLE IDENTIFICATION

MW-25		
Date	8/95	10/95
Acetone	<1,000	NA
Trichloroethene	<5	3 J
N,N-dimethylaniline	1 J	<10
Aniline	<5	<5

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 DETECTED COCs ARE PRESENTED ON THIS FIGURE.
6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
8. D = CONCENTRATION IS BASED ON DILUTED SAMPLE ANALYSIS.
9. E = IDENTIFIES COMPOUNDS WHOSE CONCENTRATIONS EXCEED THE CALIBRATION RANGE OF THE INSTRUMENTS.
10. B = THE COMPOUND HAS BEEN FOUND IN THE SAMPLE AS WELL AS IN ITS ASSOCIATED BLANK; ITS PRESENCE IN THE SAMPLE MAY BE SUSPECT.
11. N = THIS ANALYSIS INDICATES THE PRESENCE OF A COMPOUND FOR WHICH THERE IS PRESUMPTIVE EVIDENCE TO MAKE AN TENTATIVE IDENTIFICATION.
12. R = THE SAMPLE RESULT WAS REJECTED.
13. DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.
14. THE ANILINE DATA FOR THE 9/98 SAMPLING EVENT FOR MW-18, MW-19, MW-23S, MW-23I, MW-24SR, MW-24DR, MW-28, PZ-5S AND PZ-5D WERE OBTAINED IN 12/98, BECAUSE THE 9/98 RESULTS WERE REJECTED DUE TO LABORATORY ERROR.
15. * = MW-3S WAS RESAMPLED ON 11/8/01 DUE TO ANILINE DETECTION DURING 9/2001 SAMPLING EVENT AT A CONCENTRATION OF 690 PPB. ANILINE WAS DETECTED ON 11/8/01 AT A CONCENTRATION OF 69 PPB.
16. ** = MONITORING WELLS MW-17R, MW-18, AND PZ-4S WERE RESAMPLED FOR ANILINE AND N,N-DIMETHYLANILINE ON JUNE 18, 2002 DUE TO N,N-DIMETHYLANILINE AND/ OR ANILINE DETECTION AT THESE PERIMETER MONITORING LOCATIONS DURING THE APRIL 2002 SAMPLING EVENT. THE RESULTS OF THIS RESAMPLING EVENT ARE SHOWN IN PARENTHESIS. MONITORING WELLS MW-24SR AND MW-24DR WERE ALSO SAMPLED ON JUNE 18, 2002 FOR ANALYSIS OF ANILINE AND N,N-DIMETHYLANILINE. THESE COMPOUNDS WERE NOT DETECTED.
17. ^ = THE ANILINE AND N,N-DIMETHYLANILINE DATA FOR THE 10/02 SAMPLING EVENT FOR MW-17R, MW-18, MW-19, MW-23S, MW-23I, MW-24SR, MW-24DR, MW-25S, PZ-4S, PZ-5S, AND PZ-5D WERE OBTAINED IN 1/03, BECAUSE THE 10/02 RESULTS WERE REJECTED DUE TO MATRIX SPIKE AND MATRIX SPIKE DUPLICATE RECOVERIES BELOW CONTROL LIMITS.
18. THE 10/02 SAMPLING EVENT N,N-DIMETHYLANILINE DATA FOR MW-3S, MW-28 AND MW-29 AND THE 10/02 SAMPLING EVENT ANILINE AND N,N-DIMETHYLANILINE DATA FOR MW-30 WERE REJECTED DUE TO MATRIX SPIKE AND MATRIX SPIKE DUPLICATE RECOVERIES BELOW CONTROL LIMITS. THESE MONITORING WELLS WERE NOT RESAMPLED.

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

GROUNDWATER MONITORING DATA SUMMARY FOR 1988 - MAY 2003 AREA 3

ARCADIS

FIGURE
2

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: N.SMITH/GALL L.FORAKER LD: PIC: D.ULM PM: D.PENNIMAN TM: D.PENNIMAN LYR: ON=*;OFF=REF
G:\ENVCAD\SYRACUSE\ACT\B0026003\0000\0019\DWG\MARC-H0926003C01.DWG LAYOUT: 2 SAVED: 8/4/2011 2:31 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/4/2011 2:32 PM BY: JONES, WENDY
XREFS: IMAGES: PROJECTNAME: ----

TW-02R		
Date	10/03	6/04
Acetone	68	140 J
Benzene	28	19 J
Toluene	75 J	39 J
Ethylbenzene	<5	31 J
Xylene	<10	111 J
Methanol	<1,000	<1,000
Trichloroethene	2 J	<10 J
Aniline	92,000 D	82,000
N,N-dimethylaniline	<260	<5,200
Methylene Chloride	91	4 J

TW-02RR				
Date	11/04	6/05	11/05	6/06
Acetone	18 J	7.2 J	26 J	16
Benzene	4 J	3.6	6	4.4
Toluene	8 J	2.1 J	4.1	1.3 J
Ethylbenzene	4 J	3.6 J	3.6	2.7 J
Xylene	16 J	9.6	11	6.7
Methanol	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<10	0.3 J	<0.4	<1.0
Aniline	7,100 D	8,400	14,000	10,000
N,N-dimethylaniline	<5.0	<50	<110 J	<100
Methylene Chloride	<10	<3.0	<0.5	<3.0

MW-35						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	5 J	<25	<25	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	<10	<1.0	<1.0	<1.0
Toluene	<5.0	<10	<10	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	<10	<4.0	<4.0	<4.0
Xylene	<10	<20	<20	<5.0	<5.0	<5.0
Methanol	<1000	<1000	240 J	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<10	<1.0	<1.0	<1.0
Aniline	4 J	30	82	<1.0	<1.0	0.4 J
N,N-dimethylaniline	<5.0	4 J	<5.0	<1.0	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<10	<3.0	<3.0	<3.0

MW-36						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	580 D	22 J	13 J	24 J	77 J	25
Benzene	<5.0	<10 J	<10	2.1	3.6	1.6
Toluene	<5.0	<10 J	<10	<5.0	2.0 J	0.7 J
Ethylbenzene	<5.0	<10 J	<10	<4.0	0.6 J	<4.0
Xylene	<10	<20 J	<20	1.0 J	2.8 J	1.2 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10 J	<10	<1.0	<1.0	<1.0
Aniline	100	33	22	1,200	1,600	76
N,N-dimethylaniline	<5.0	7	<5.0	<5.4	<10 J	1.9
Methylene Chloride	<5.0	<10 J	<10	<3.0	<3.0	<3.0

MW-34						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	9 J	24 J	<25	5.6 J	20 J	6.4
Benzene	<5.0	<10	<10	0.7 J	<0.3	0.6 J
Toluene	<5.0	<10	<10	0.9 J	0.9	0.5 J
Ethylbenzene	<5	<10	<10	<4.0	<0.5	<4.0
Xylene	<10	<20	<20	1.2 J	1.1	<5.0
Methanol	<1000	<1000	180 J	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<10	0.4 J	<0.4	<1.0
Aniline	18	30	14	16	12	16
N,N-dimethylaniline	<5.0	<5.0	<5.0	2.5	2 J	2.3
Methylene Chloride	<5.0	<10	<10	<3.0	<0.5	<3.0

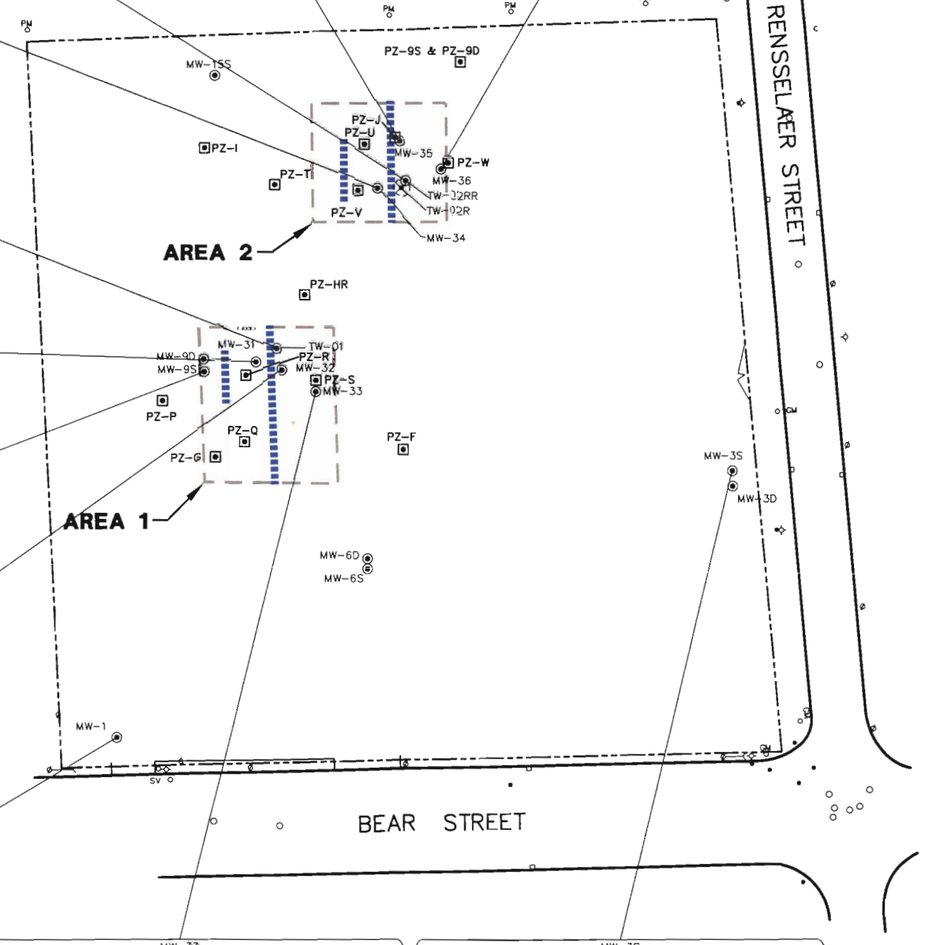
TW-01						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	6 J	<25	<5.0 J	<1.3 J	<5.0 J
Benzene	6	3 J	2 J	1.8	1.9	1 J
Toluene	<5.0	<10	<10	<5.0	<0.4	<5.0 J
Ethylbenzene	<5.0	<10	<10	<4.0	<0.5	<4.0 J
Xylene	<10	<20	<20	<5.0	<0.4	<5.0 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10	<10	<1.0	<0.4	<1.0 J
Aniline	0.6 J	<5.0	<5.0	<1.0	<1.0	<1.0 J
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	0.8 J
Methylene Chloride	<5.0	<10	<10	<3.0	<0.5	<3.0 J

MW-31						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	1,200 D	15 J	<25	<5.0 J	<1.3 J	<5.0 J
Benzene	13	12	9 J	11	6.7	11 J
Toluene	<5.0	<10	<10	<5.0	<0.4	0.6 J
Ethylbenzene	<5.0	<10	<10	<4.0	<0.5	<4.0 J
Xylene	<5.0	<20	<20	1.3 J	0.6	1.7 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10	<10	<1.0	<0.4	<1.0 J
Aniline	88	3 J	<5.0	3.2	16	<1.0 J
N,N-dimethylaniline	<5.0	<5.0	<5.0	2.7	<1.0 J	2.4 J
Methylene Chloride	<5.0	<10	<10	<3.0	<0.5	3.4

MW-9S						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	14 J	<25	44 J	<1.3 J	<5.0 J
Benzene	2 J	6 J	4 J	1.9	3.5	1.1 J
Toluene	<5	2 J	2 J	3.2 J	3.8	2.3 J
Ethylbenzene	5	8 J	9 J	24	11	25 J
Xylene	19	19 J	30 J	64	33	60 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10	<10	<1.0	<0.4	<1.0 J
Aniline	1 J	<5.0	<5.0	2.6	1.4	<1.1 J
N,N-dimethylaniline	<5.0	<5.0	<5.0	1.9	6.1 J	3.8 J
Methylene Chloride	<5.0	<10	<10	<3.0	<0.5	<3.0 J

MW-32						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	20	6 J	<25	<5.0 J	<5.0 J	<5.0 J
Benzene	2 J	1 J	<10	1	<1.0	<1.0 J
Toluene	<5.0	<10	<10	<5.0	<5.0	<5.0 J
Ethylbenzene	<5.0	<10	<10	<4.0	<4.0	<4.0 J
Xylene	<10	<20	<20	<5.0	<5.0	<5.0 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10	<10	<1.0	<1.0	<1.0 J
Aniline	<5.0	1 J	<5.0	0.4 J	<1.0	<1.0 J
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.0 J
Methylene Chloride	<5.0	<10	<10	<3.0	<3.0	<3.0 J

MW-1						
Date	10/03	8/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	–	<5.0 J	<1.3 J	<5.0 J
Benzene	<5.0	<10	–	<1.0	<0.3	<1.0 J
Toluene	<5.0	<10	–	<5.0	<0.4	<5.0 J
Ethylbenzene	<5.0	<10	–	<4.0	<0.5	<4.0 J
Xylene	<10	<20	–	<0.5	<0.5	<5.0 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10	–	<1.0	<0.4	<1.0 J
Aniline	2 J	<5.0	<5.0	0.2 J	<1.0	<1.0 J
N,N-Dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.0 J
Methylene Chloride	<5.0	<10	–	<3.0	<0.5	<3.0 J



MW-33						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	22	9 J	–	<5.0 J	<5.0 J	<5.0 J
Benzene	2 J	12 J	–	11	16	6.7 J
Toluene	<5.0	<10 J	–	1.0 J	1.8 J	0.7 J
Ethylbenzene	<5.0	<10 J	–	<4.0	<4.0	<4.0 J
Xylene	<10	<20 J	–	<5.0	<5.0	<5.0 J
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000 J
Trichloroethene	<5.0	<10 J	–	<1.0	<1.0	<1.0 J
Aniline	1,900 D	2,700 D	2,700 D	1,800	3,500	370 J
N,N-dimethylaniline	<6.0	5 J	5 J	<10	<25 J	3.5 J
Methylene Chloride	<5.0	<10 J	–	<3.0	<3.0	<3.0 J

MW-3S						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	6 J	<25	<5.0 J	<1.3 J	<5.0
Benzene	<5.0	<10	<10	<1.0	<0.3	<1.0
Toluene	<5.0	<10	<10	<5.0	<0.4	<5.0
Ethylbenzene	<5.0	<10	<10	<4.0	<0.5	<4.0
Xylene	<10	<20	<20	<5.0	<0.4	<5.0
Methanol	<1,000	<1,000	150 J	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<10	<3.0	<0.4	<1.0
Aniline	4 J	0.8 J	4 J	15	<1.0	<1.0
N,N-dimethylaniline	<5.0	<6.0	<5.0	<1.0	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<10	<3.0	<0.5	<3.0

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- TW-02R REMOVED GROUNDWATER MONITORING WELL
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER INFILTRATION TRENCH

SAMPLE IDENTIFICATION

MW-35						
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	5 J	<25	<25	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	<10	<1.0	<1.0	<1.0
Toluene	<5.0	<10	<10	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	<10	<4.0	<4.0	<4.0
Xylene	<10	<20	<20	<5.0	<5.0	<5.0
Methanol	<1000	<1000	240 J	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<10	<1.0	<1.0	<1.0
Aniline	4 J	30	82	<1.0	<1.0	0.4 J
N,N-dimethylaniline	<5.0	4 J	<5.0	<1.0	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<10	<3.0	<3.0	<3.0

CONCENTRATION (ppb)

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

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 FIGURE 1).
6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY
8. D = CONCENTRATION IS BASED ON DILUTED SAMPLE ANALYSIS.
9. R = THE SAMPLE RESULT WAS REJECTED.
10. DURING THE AUGUST 2004 SUPPLEMENTAL REMEDIAL ACTIVITIES, MONITORING WELL TW-02R WAS REMOVED AND TW-02RR WAS CONSTRUCTED OUTSIDE THE SOIL REMOVAL AREA IN THE VICINITY OF TW-02R.
11. THE 11/04 SAMPLING EVENT VOLATILE ORGANIC COMPOUND (VOC) DATA FOR MW-33 AND MW-1 WERE INADVERTENTLY LOST DUE TO LABORATORY EQUIPMENT FAILURE. AS DETAILED IN THE BIANNUAL REPORT, THESE MONITORING WELLS WERE NOT RESAMPLED.

0 100' 200'

GRAPHIC SCALE

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

GROUNDWATER MONITORING DATA SUMMARY FOR OCTOBER 2003 - JUNE 2006 AREAS 1 & 2

ARCADIS

FIGURE 3

MW-27

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	170	23 J	<120 (28)	31 J	35 J (37 J)	5.3 J (5.8 J)
Benzene	5	5 J	<50 (4 J)	6.1	11 (12)	9.5 J (8.9 J)
Toluene	<5.0	4 J	<50 (2 J)	15	77 (78)	50 J (48 J)
Ethylbenzene	<5.0	2 J	<50 (<10)	5.8	26 (26)	25 J (25 J)
Xylene	3 J	6 J	<100 (<20)	15	86 (88)	66 J (63 J)
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000 (<1,000)	<1,000 J (<1,000 J)
Trichloroethene	<5.0	<10	<50 (<10)	<1.0	<1.0 (<1.0)	<1.0 J (<1.0 J)
Aniline	3,700 D	3,700 D	1,100 D J	5,200	37,000 (38,000)	14,000 J (12,000 J)
N,N-dimethylaniline	<5.0	20 J	<5.0	<23	<270 J (<260 J)	<100 J (<100 J)
Methylene Chloride	240 D	<10	310 (490 D)	<3.0	<3.0 (<3.0)	<3.0 J (<3.0 J)

MW-19

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<11	<25	<25	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	<10	<1.0	<1.0	<1.0
Toluene	<5.0	<10	<10	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	<10	<4.0	<4.0	<4.0
Xylene	<10	<20	<20	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<10	<1.0	<1.0	<1.0
Aniline	53 J	<5.0	<5.0	<1.1	<1.0	<1.0
N,N-dimethylaniline	16 J	<5.0	<5.0	<1.1	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<10	<3.0	<3.0	<3.0

MW-24DR

Date	10/03	11/04	6/05	11/05
Acetone	<12	–	<5.0 J	<5.0 J
Benzene	<5.0	–	<1.0	<1.0
Toluene	<5.0	–	<5.0	<5.0
Ethylbenzene	<5.0	–	<4.0	<4.0
Xylene	<10	–	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	–	<1.0	<1.0
Aniline	0.5 J	<5.0	<1.0	<1.1
N,N-dimethylaniline	<5.0	<5.0	<1.0	<1.1 J
Methylene Chloride	<5.0	–	<3.0	<3.0

PZ-5D

Date	10/03	6/04	11/04	6/05	11/05
Aniline	46	<5.0	<5.0	<1.0	<1.0

PZ-5S

Date	10/03	11/04	6/05	11/05
Acetone	<12	–	<5.0 J	<5.0 J

PZ-4S

Date	6/04	6/05	6/06
Aniline	<5.0	<1.0	<1.0
N,N-dimethylaniline	<5.0	<1.0	<1.0
Toluene	<10	<5.0	0.6 J

PZ-4D

Date	6/04	6/05	6/06
N,N-dimethylaniline	<5.0	<1.0	<1.0
Toluene	<10	<5.0	0.5 J

MW-24SR

Date	10/03	6/04	11/04	6/05	11/05
Acetone	<12	<25	–	<5.0 J	<5.0 J
Benzene	<5.0	<10	–	<1.0	<1.0
Toluene	<5.0	<10	–	<5.0	<5.0
Ethylbenzene	<5.0	<10	–	<4.0	<4.0
Xylene	<10	<20	–	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	–	<1.0	<1.0
Aniline	16	<5.0	<5.0	<1.0	<1.0
N,N-Dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J
Methylene Chloride	<5.0	<10	–	<3.0	<3.0

MW-17R

Date	11/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	–	<5.0 J	<5.0 J	<5.0
Benzene	7	5 J	–	<1.0	<1.0	0.8 J
Toluene	<5.0	<10	–	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	–	<4.0	<4.0	<4.0
Xylene	<10	<20	–	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	200 J	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	–	<1.0	<1.0	<1.0
Aniline	<5.0	<5.0	<5.0	<1.0	<1.0	<1.1
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.1
Methylene Chloride	<5.0	<10	–	<3.0	<3.0	<3.0

MW-18

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	–	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	–	<1.0	<1.0	<1.0
Toluene	<5.0	<10	–	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	–	<4.0	<4.0	<4.0
Xylene	<10	<20	–	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	–	<1.0	<1.0	<1.0
Aniline	0.7 J	R	<5.0	<1.0	<1.1	<1.0
N,N-Dimethylaniline	<5.0	R	<5.0	<1.0	<1.1 J	<1.0
Methylene Chloride	<5.0	<10	–	<3.0	<3.0	<3.0

MW-30

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	<120	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	<50	0.3 J	0.7 J	0.6 J
Toluene	<5.0	<10	<50	<5.0	0.6 J	0.4 J
Ethylbenzene	<5.0	<10	<50	<4.0	<4.0	<4.0
Xylene	<10	<20	<100	<5.0	0.5 J	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<50	<1.0	<1.0	<1.0
Aniline	4 J	<5.0	<5.0	<1.0	240	29
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<50	<3.0	<3.0	<3.0

MW-8S

Date	10/03	6/04
Acetone	21	<25
Benzene	25	40
Toluene	330 D	330 EJ
Ethylbenzene	93	110
Xylene	360	400
Methanol	1,200 J	<1,000
Trichloroethene	3,100 D	5,900 D
Aniline	67,000 D	56,000
N,N-dimethylaniline	24,000 D	51,000
Methylene Chloride	400,000 D	1,200,000 D

MW-8SR

Date	11/04	6/05	11/05	6/06
Acetone	<1,200	81 J	15 J	48
Benzene	<500	13	13	15
Toluene	100 DJ	100	130	120
Ethylbenzene	<500	53	66	79
Xylene	184 DJ	180	260	260
Methanol	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<500	<1.0	<1.0	<1.0
Aniline	35,000 D	30,000	32,000	23,000
N,N-dimethylaniline	5,300 D	<200	<260 J	<200
Methylene Chloride	10,000 D	<3.0	<3.0	<3.0

MW-25D

Date	6/04	6/05	6/06
Acetone	<25	<5.0 J	<5.0
Trichloroethene	<10	<1.0	<1.0
Aniline	<5.0	<1.0	<1.0
N,N-dimethylaniline	<5.0	<1.0	<1.0

MW-23S

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	–	<5.0 J	<5.0 J	<5.0 J
Benzene	<5.0	<10	–	<1.0	<1.0	<1.0
Toluene	<5.0	<10	–	<5.0	<5.0	<5.0
Ethybenzene	<5.0	<10	–	<4.0	<4.0	<4.0
Xylene	<10	<20	–	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	–	<1.0	<1.0	<1.0
Aniline	60	<5.0	<5.0	<1.0	<1.0	<1.2
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.2
Methylene Chloride	<5.0	<10	–	<3.0	<3.0	<3.0

MW-23I

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	–	<5.0 J	<5.0 J	<5.0 J
Benzene	<5.0	<10	–	<1.0	<1.0	<1.0
Toluene	<5.0	<10	–	<5.0	<5.0	0.6 J
Ethylbenzene	<5.0	<10	–	<4.0	<4.0	<4.0
Xylene	<10	<20	–	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	–	<1.0	<1.0	<1.0
Aniline	<5.0	1 J	<5.0	<1.0	<1.0	<1.0
N,N-Dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	–	<3.0	<3.0	<3.0

MW-28

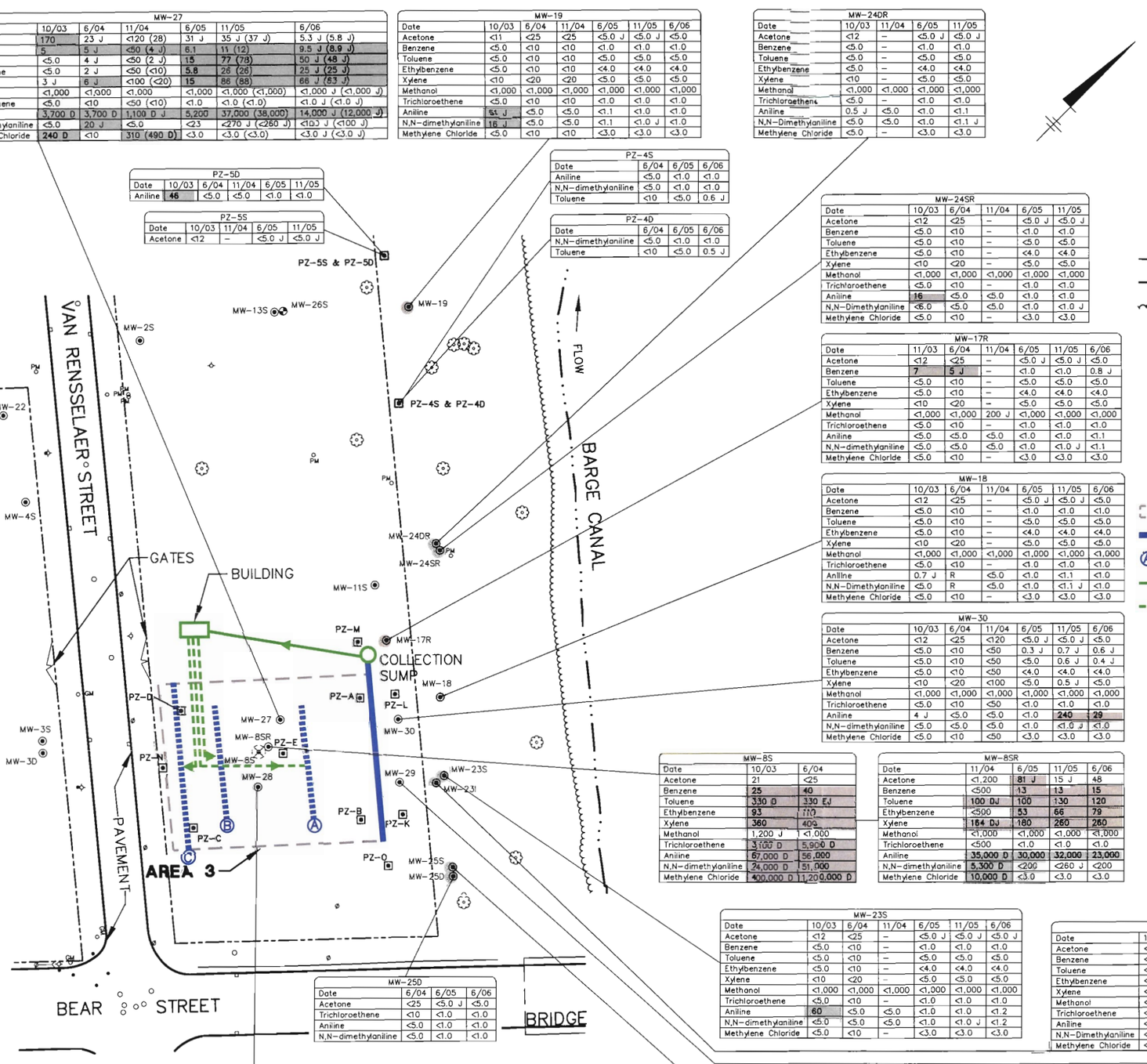
Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	24	20 J	<120 (<25)	5.2 J	6.8 J (7.8 J)	<5.0J (<5.0 J)
Benzene	11	4 J	<50 (4 J)	4.5	6.1 (5.8)	6.0J (6.3 J)
Toluene	6	2 J	<50 (<10)	1.2 J	<5.0 (<5.0)	1.2 J (1.3 J)
Ethylbenzene	12	5 J	<50 (5 J)	4.6	4.7 (4.7)	5.3J (5.4 J)
Xylene	13 J	4 J	<100 (3 J)	3.9 J	<5.0 (<5.0)	4.2 J (4.3 J)
Methanol	<1,000	<1,000	190 J	<1,000	<1,000 (<1,000)	<500J(<1,000 J)
Trichloroethene	<5	<10	<50 (<10)	<1.0	<1.0 (<1.0)	<1.0J (<1.0 J)
Aniline	1,900 D	910 D	640 D J	830	380 (350)	430J (530 J)
N,N-dimethylaniline	<5.0	<5.0	<5.0	<5.0	<2.2 J (<2.1 J)	<2.1J (<5.0 J)
Methylene Chloride	<5.0	<10	<50 (<10)	<3.0	<3.0 (<3.0)	<3.0J (<3.0 J)

MW-25S

Date	11/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	–	<5.0 J	<5.0 J	<5.0 J
Benzene	<5.0	<10	–	<1.0	<1.0	<1.0
Toluene	<5.0	<10	–	<4.0	<5.0	<5.0
Ethylbenzene	<5.0	<10	–	<4.0	<4.0	<4.0
Xylene	<10	<20	–	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	–	<1.0	<1.0	<1.0
Aniline	<5.0	<5.0	<5	<1.1	<1.0	<1.0
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.1	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	–	<3.0	<3.0	<3.0

MW-29

Date	10/03	6/04	11/04	6/05	11/05	6/06
Acetone	<12	<25	<120	<5.0 J	<5.0 J	<5.0
Benzene	<5.0	<10	<50	<1.0	<1.0	<1.0
Toluene	<5.0	<10	<50	<5.0	<5.0	<5.0
Ethylbenzene	<5	<10	<50	<4.0	<4.0	<4.0
Xylene	<10	<20	<100	<5.0	<5.0	<5.0
Methanol	<1,000	<1,000	420 J	<1,000	<1,000	<1,000
Trichloroethene	<5.0	<10	<50	<1.0	<1.0	<1.0
Aniline	2 J	3 J	<5.0	<1.0	<1.0	<1.0
N,N-dimethylaniline	<5.0	<5.0	<5.0	<1.0	<1.0 J	<1.0
Methylene Chloride	<5.0	<10	<50	<3.0	<3.0	<3.0



LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- EDGE OF WATER
- EDGE OF TREELINE
- TREE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION
- MW-26S PUMPING WELL
- MW-8S REMOVED GROUNDWATER MONITORING WELL
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH
- PIPING TO BUILDING
- PIPING FROM BUILDING

SAMPLE IDENTIFICATION
CONCENTRATION (ppb)

MW-8S

Date	10/03	6/04
Acetone	21	<25
Benzene	25	40
Toluene	330 D	330 EJ
Ethylbenzene	93	110
Xylene	360	400
Methanol	1,200 J	<1,000
Trichloroethene	3,100 D	5,900 D
Aniline	67,000 D	56,000
N,N-dimethylaniline	24,000 D	51,000
Methylene Chloride	400,000 D	1,200,000 D

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

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 FIGURE 2).
6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.
8. D = CONCENTRATION IS BASED ON DILUTED SAMPLE ANALYSIS.
9. R = THE SAMPLE RESULT WAS REJECTED.
10. E = THE COMPOUND WAS QUANTITATED ABOVE THE CALIBRATION RANGE.
11. THE 6/04 SAMPLING EVENT ANILINE AND N,N-DIMETHYLANILINE DATA FOR MW-18 WERE REJECTED DUE TO THE DEVIATION FROM A SURROGATE RECOVERY BELOW 10 PERCENT. THIS MONITORING WELL WAS NOT RESAMPLED.
12. DURING THE AUGUST 2004 SUPPLEMENTAL REMEDIAL ACTIVITIES, MONITORING WELL MW-8S WAS REMOVED AND MW-8SR WAS CONSTRUCTED DOWNGRADIENT OF THE SOIL REMOVAL AREA IN THE VICINITY OF MW-8S.
13. THE 11/04 SAMPLING EVENT VOLATILE ORGANIC COMPOUND (VOC) DATA FOR MW-17R, MW-18, MW-23I, MW-23S, MW-24DR, MW-24SR, MW-25S, PZ-5D, AND PZ-5S WERE INADVERTENTLY LOST DUE TO LABORATORY EQUIPMENT FAILURE. AS DETAILED IN THE BIANNUAL REPORT, THESE MONITORING WELLS WERE NOT RESAMPLED.
14. THE 11/04 SAMPLING EVENT VOC INITIAL DATA FOR MW-27, MW-28, MW-29, AND MW-30 WERE INADVERTENTLY LOST DUE TO LABORATORY EQUIPMENT FAILURE. HOWEVER, VALID DATA WAS OBTAINED FROM SUBSEQUENT DILUTIONS OF THESE SAMPLES, RESULTING IN HIGHER DETECTION LIMITS. THE VOC RESULTS OBTAINED FROM THE DUPLICATE SAMPLES COLLECTED AT MW-27 AND MW-28 HAVE LOWER DETECTION LIMITS AND ARE PRESENTED ON THIS FIGURE IN PARENTHESES.

0 100' 200'

GRAPHIC SCALE

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

GROUNDWATER MONITORING DATA SUMMARY FOR OCTOBER 2003 - JUNE 2006 AREA 3

ARCADIS

FIGURE 4

MW-35

Date	11/06	6/07	11/07	3/08	8/08	3/09	9/09	4/10	10/10
Acetone	R	13	<5.0	<5.0 J	5.4	<10	6.5 J	<10 J	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	0.16 J	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0	<3.0	<3.0	<3.0
Aniline	1.1	<5.0	<5.0	<5.0	1.1 J	<5.0	<5.0	<5.0	<5.0
N,N-Dimethylaniline	<1.0 J	<1.0	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0
Methanol	<500	<500	<500 J	<500	<500	<500	1100	<500	<500 J

MW-36

Date	9/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09	6/09	9/09	4/10	10/10
Acetone	NA	130 J	33	NA	10	8.0 J	27	28	NA	21	<10 J	12
Benzene	NA	3.6	4.6	NA	4.5	4.2	3.7	2.4	NA	3.1	3.3	3.9
Ethylbenzene	NA	<4.0	0.87 J	NA	0.90 J	0.80 J	0.60 J	<1.0	NA	<1.0	0.26 J	0.28 J
Methylene Chloride	NA	<3.0	<3.0	NA	<3.0	<3.0	<3.0	<1.0	NA	<1.0	<1.0	<1.0
Toluene	NA	1.2 J	1.4 J	NA	1.7 J	1.5 J	1.4 J	0.80 J	NA	0.96 J	1.1	1.2
Trichloroethene	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0
Xylenes (total)	NA	1.1 J	5.0	NA	5.3	5.5	5.7	2.8 J	NA	3.2	5.4	4.8
Aniline	3.5	420	1300	740	480 J	130	4.5 J	150	460	390	77	620
N,N-Dimethylaniline	1.2	1.7 J	<10	<5.0	3.4 J	3.0	3.2	2.8	<5.0	3.1	2.6	<5.0
Methanol	NA	<500	<500	NA	<500 J	<500	<500	<500	NA	<500	<500	<500 J

TW-02RR

Date	9/06	11/06	6/07	8/07	11/07	12/07	3/08	8/08	3/09	6/09	9/09	4/10	10/10
Acetone	NA	78 J	17	NA	5.5	NA	6.4 [5.2]	9.0 [9.6 J]	<10 [<10]	NA	<10 [<10]	9.5 J [12 J]	<10 [<10]
Benzene	NA	4.9	5.5	NA	5.8	NA	4.5 J [2.3 J]	4.4 [4.6]	5.0 [4.8]	NA	4.3 [4.2]	4.1 [4.0]	3.3 [3.0]
Ethylbenzene	NA	2.2 J	4	NA	3.0 J	NA	3.8 J [1.9 J]	2.3 J [2.4 J]	1.5 [1.6]	NA	1.2 [1.3]	1.2 [1.2]	1.0 [0.91 J]
Methylene Chloride	NA	<3.0	<3.0	NA	<3.0	NA	<3.0 [<3.0]	<3.0 [<3.0]	<1.0 [<1.0]	NA	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]
Toluene	NA	1.4 J	1.3 J	NA	1.2 J	NA	1.3 J [0.70 J]	1.0 J [1.1 J]	1.0 [1.0 J]	NA	0.79 J [0.81 J]	0.78 J [0.75 J]	0.82 J [0.76 J]
Trichloroethene	NA	<1.0	<1.0	NA	<1.0	NA	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	NA	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]
Xylenes (total)	NA	6.2	8.8	NA	7.8	NA	10 [4.8 J]	6.7 [7.0]	4.2 [4.1]	NA	3.5 [3.6]	4.2 [4.0]	3.6 [3.6]
Aniline	7800	2100	6800	4000 J	NA	3750	7500 [5400]	9600 [7000]	2000 [1800]	2800 J	1600 J [1500]	2800 J [3100 J]	780 [810]
N,N-Dimethylaniline	<52	<10 J	<100	<20	NA	<25	<50 [<50]	<71 [<52]	<10 [<10]	<20 J	<10 [<10]	<20 J [<20 J]	<50 [<22 J]
Methanol	NA	<500	<500	NA	<500 J	NA	<500 [<500]	<500 [<500]	<500 [<500]	NA	1000 [1200]	<500 [<500]	<500 J [<500 J]

MW-22

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

MW-34

Date	11/06	6/07	11/07	3/08	8/08	3/09	9/09	4/10	10/10
Acetone	49 J	22	<5.0	16	12 J	14	24	50 J	20
Benzene	<1.0	0.90 J	0.80 J	1.0 J	0.80 J	1.4	<1.0	0.82 J	1
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0
Toluene	0.60 J	0.50 J	0.60 J	0.50 J	0.50 J	0.70 J	0.64 J	0.42 J	0.44 J
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	0.60 J	0.60 J	1.1 J	1.1 J	1.1 J	1.5 J	1.7 J	1.4 J	1.3 J
Aniline	9.9	<5.0	0.30 J	24	0.60 J	12	<5.0	<5.0	1.8 J
N,N-Dimethylaniline	1.2 J	<1.0	1.5	1.3	1.6	2.0	2.5	2.0	2.8
Methanol	<500	<500	<500 J	<500	<500	<500	1000	<500	<500 J

MW-4S

Date	10/10
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]

TW-01

Date	11/06	6/07	11/07	3/08	8/08	3/09	9/09	4/10	10/10
Acetone	R	7.8	<5.0	<5.0 J	<5.0	<10	2.9 J	<10	<10
Benzene	0.70 J	0.50 J	<1.0	<1.0	<1.0	1.9	<1.0	0.32 J	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	0.11 J	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<5.0	<5.0	0.60 J	<3.0	<3.0	<3.0
Aniline	<1.0	<5.0	0.20 J	<5.0	<5.6	<5.0	<5.0	<5.0	<5.3
N,N-Dimethylaniline	<1.0 J	<1.0	1.1	1.0	<0.60	<0.50	1.1	1.0	1.3
Methanol	<500	<500	<500 J	<500	<500	22000	970	<500	<500 J

MW-9S

Date	11/06	6/07	11/07	3/08	8/08	3/09	9/09	4/10	10/10
Acetone	<5.0	<5.0	<5.0	<5.0 J	24 J	<200	<10	<10	<10
Benzene	1.4	1.4	0.90 J	1.1	3.7	24	1.7	0.86 J	1.3
Ethylbenzene	23	42	11	37	21	550	20	26	11
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<20	<1.0	<1.0	<1.0
Toluene	3.5 J	3.3 J	2.0 J	3.0 J	3.3 J	50	2.2	2.1	1.9
Trichloroethene	<1.0	<1.0	<1.0	1.2	<1.0	<20	<1.0	<1.0	<1.0
Xylenes (total)	63	110	58	73	72	1300	70	69	45
Aniline	0.50 J	<5.0	1.7 J	0.70 J	<5.5	<5.0	<5.0	<5.0	<5.1
N,N-Dimethylaniline	3.3 J	4.1	8.6	6.8	5.1	4.2	4.1	6.5	7.5
Methanol	<500	<500	<500 J	<500	<500	<500	730	<500	<500 J

MW-31

Date	9/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09	9/09	4/10	10/10
Acetone	NA	R	<5.0	NA	<5.0 [<5.0]	<5.0 J	22	9.4 J	<10	<10	<10
Benzene	NA	6.9	1.4	NA	12 [10]	2.0	3.3	8.3	10	4.8	6.8
Ethylbenzene	NA	<4.0	<4.0	NA	<4.0 [<4.0]	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	NA	<3.0	<3.0	NA	<3.0 [<3.0]	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0
Toluene	NA	<5.0	0.70 J	NA	<5.0 [0.40 J]	<5.0	0.40 J	0.60 J	0.49 J	0.40 J	0.50 J
Trichloroethene	NA	<1.0	<1.0	NA	<1.0 [<1.0]	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	NA	<5.0	1.3 J	NA	1.1 J [1.4 J]	<5.0	2.2 J	0.80 J	2.0 J	1.3 J	1.5 J
Aniline	1.6	0.40 J	<5.0	0.50 J	<5.0 [1.3 J]	0.20 J	<5.6	<5.0	<5.0	<5.0	<5.3
N,N-Dimethylaniline	34	1.1 J	2.0	2.7	2.3 [2.8]	1.6	2.4	2.3	2.5	2.3	3.5
Methanol	NA	<500	<500	NA	<500 J	<500 J	<500	<500	730	<500	<500 J

MW-1

Date	11/06	6/07	11/07	3/08	8/08	3/09	9/09	4/10
Acetone	<5.0	<5.0	<5.0	<5.0 J	7.4 J	<10	8.9 J	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0	<3.0	<3.0
Aniline	<1.0	<5.0	0.50 J	<0.50	<0.60	<0.50	<1.0	<1.0
N,N-Dimethylaniline	<1.0	<1.0	<0.50	<0.50	<0.60	<0.50	<1.0	<1.0
Methanol	<500	<500	<500 J	<500	<500	<500	<500	<500

MW-32

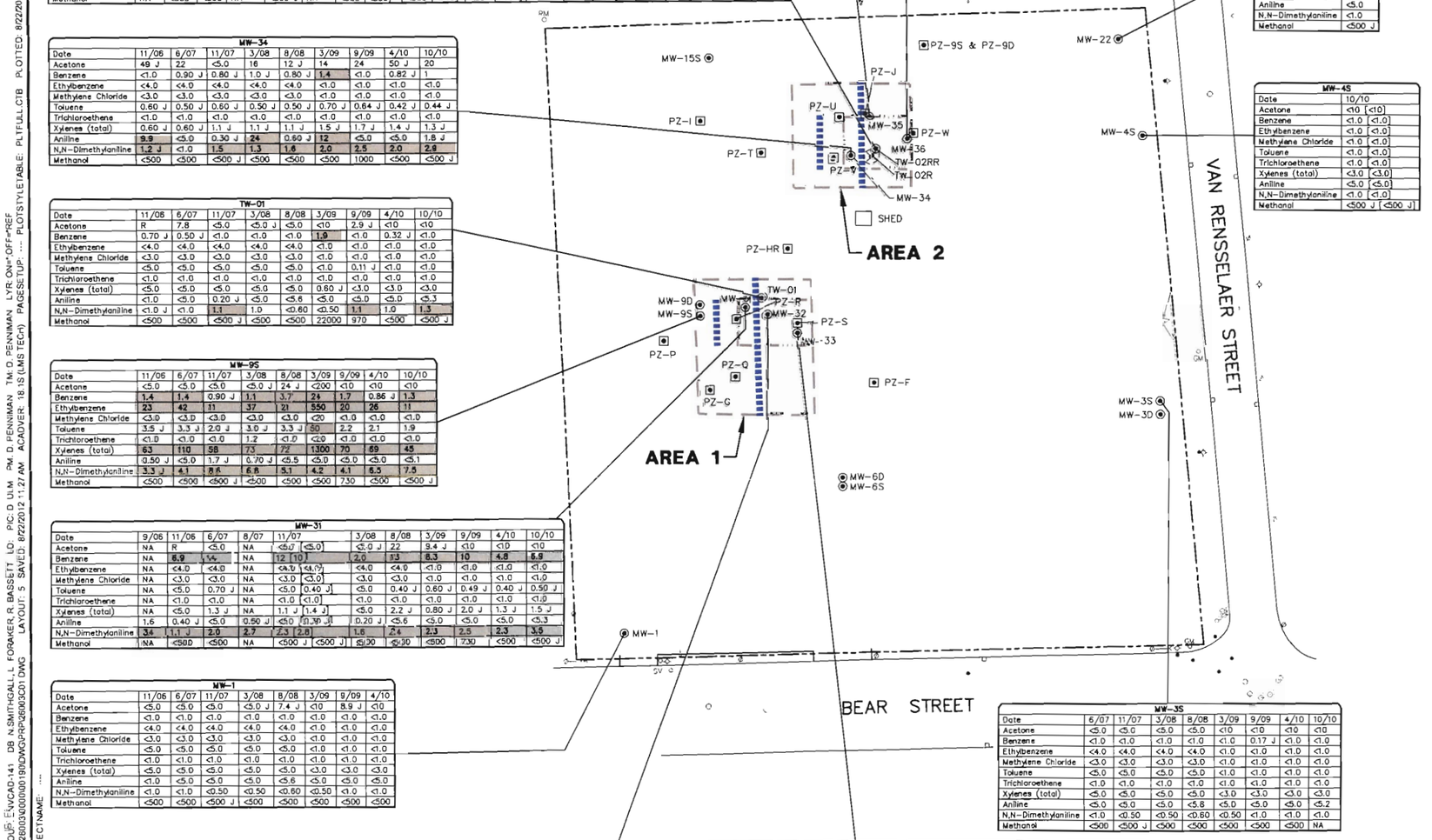
Date	11/06	6/07	11/07	3/08	8/08	3/09	9/09	4/10	10/10
Acetone	R	<5.0	<5.0	<5.0 J	5.8	<10	<10	<10	<10
Benzene	<1.0	<1.0	<1.0	0.80 J	0.30 J	0.50 J	<1.0	0.23 J	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0
Toluene	0.80 J	<5.0	<5.0	<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	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0	<3.0	<3.0	<3.0
Aniline	<1.0	<5.0	0.10 J	<5.0	<5.7	<5.0	<5.0	<5.0	<5.2
N,N-Dimethylaniline	<1.0 J	<1.0	0.8	0.8	<0.60	<0.50	1	0.89 J	0.87 J
Methanol	<500	<500	<500 J	<500	<500	<500	1200	<500	<500 J

MW-33

Date	9/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09	9/09	4/10	10/10
Acetone	NA	17 J	<5.0	NA	<5.0	<50 J	<5.0	<10	<10	<10	<10
Benzene	NA	8.6	8.7	NA	4.0	4.1	3.2	3.2	2.6	1.6	1.7
Ethylbenzene	NA	<4.0	<4.0	NA	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	NA	<3.0	<3.0	NA	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0
Toluene	NA	0.70 J	0.40 J	NA	<5.0	<5.0	<5.0	<1.0	0.20 J	<1.0	<1.0
Trichloroethene	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	NA	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<3.0	<3.0	<3.0	<3.0
Aniline	940	84	46	46	0.10 J	<5.0	<5.9	<5.0	<5.0	<5.0	<5.1
N,N-Dimethylaniline	2.0	2.9 J	2.8	4.2	3.6	4.1	2.0	2.4	<1.0	2.0	2.7
Methanol	NA	<500	<500	NA	<500 J	<500	<500	<500	<500	<500	NA

MW-3S

Date	6/07	11/07	3/08	8/08	3/09	9/09	4/10	10/10
Acetone	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	0.17 J	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<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	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<5.0	<3.0	<3.0	<3.0	<3.0
Aniline	<5.0	<5.0	<5.0	<5.8	<5.0	<5.0	<5.0	<5.2
N,N-Dimethylaniline	<1.0	<0.50	<0.50	<0.60	<0.50	<1.0	<1.0	<1.0
Methanol	<500	<500 J	<500	<500	<500	<500	<500	NA



LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- PROPERTY LINE
- MW-19 GROUNDWATER MONITORING WELL
- PZ-A PIEZOMETER
- TW-02R REMOVED GROUNDWATER MONITORING WELL
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER INFILTRATION TRENCH

SAMPLE IDENTIFICATION

MW-36

Date	9/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09	6/09	9/09	4/10	10/10
Acetone	NA	130 J	33	NA	10	8.0 J	27	28	NA	21	<10 J	12
Benzene	NA	3.6	4.6	NA	4.5	4.2	3.7	2.4	NA	3.1	3.3	3.9
Ethylbenzene	NA	<4.0	0.87 J	NA	0.90 J	0.80 J	0.60 J	<1.0	NA	<1.0	0.26 J	0.28 J
Methylene Chloride	NA	<3.0	<3.0	NA	<3.0	<3.0	<3.0	<1.0	NA	<1.0	<1.0	<1.0
Toluene	NA	1.2 J	1.4 J	NA	1.7 J	1.5 J	1.4 J	0.80 J	NA	0.96 J	1.1	1.2
Trichloroethene	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0
Xylenes (total)	NA	1.1 J	5.0	NA	5.3	5.5	5.7	2.8 J	NA	3.2	5.4	4.8
Aniline	3.5	420	1300	740	480 J	130	4.5 J	150	460	390	77	620
N,N-Dimethylaniline	1.2	1.7 J	<10	<5.0	3.4 J	3.0	3.2	2.8	<5.0	3.1	2.6	<5.0
Methanol	NA	<500	<500	NA	<500 J	<500	<500	<500	NA	<500	<500	<500 J

CONCENTRATION (ppb)

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

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-02RR PRESENTED WITH THE 11/07 DATA ARE THE RESULTS OF SAMPLES COLLECTED 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.

0 100' 200'

GRAPHIC SCALE

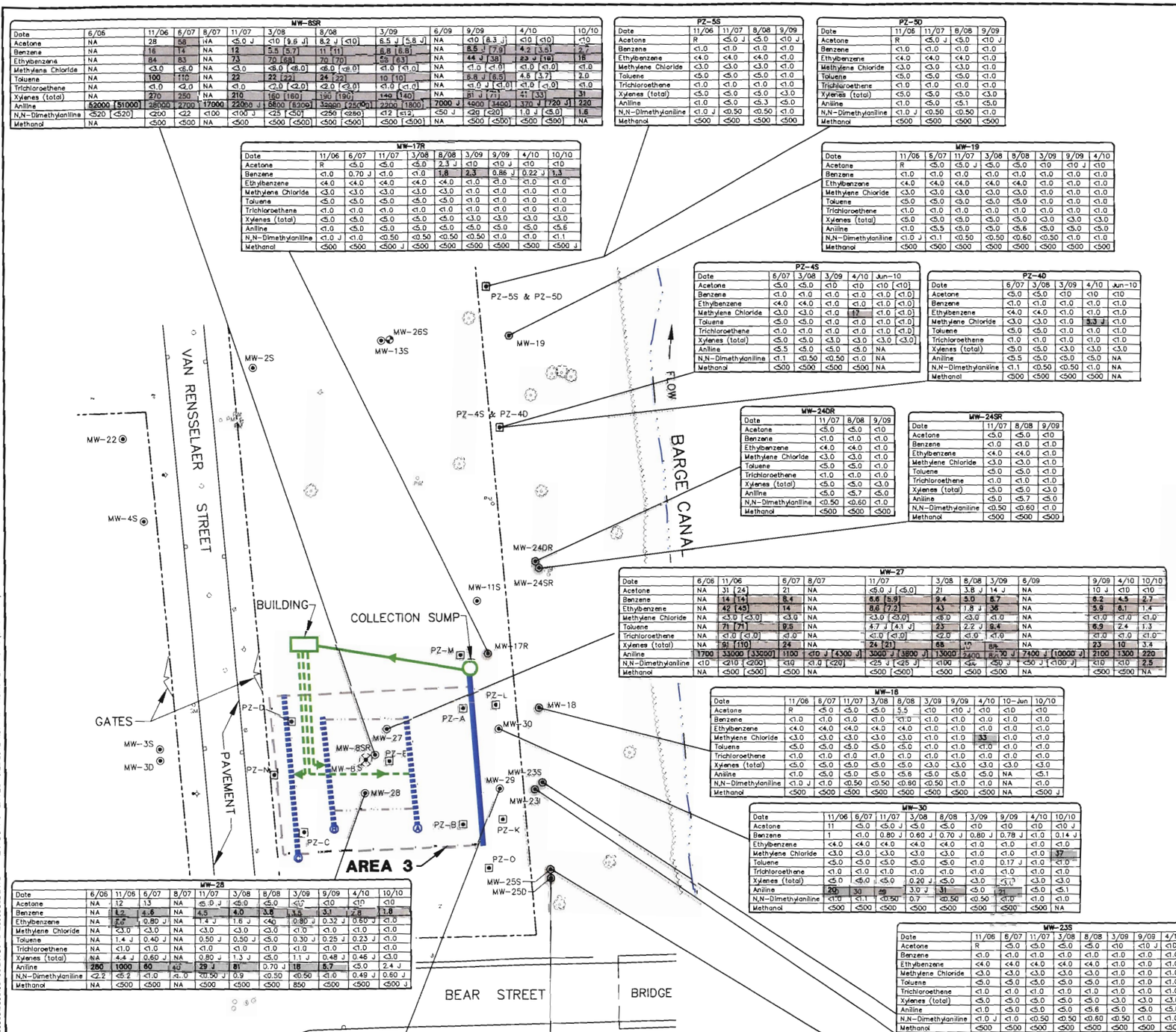
NYSDEC GQS	
Acetone	50
Benzene	1
Toluene	5
Ethylbenzene	5
Xylene	5
Methanol	NS
Trichloroethene	5
Aniline	5
N,N-dimethylaniline	1
Methylene Chloride	5

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

GROUNDWATER MONITORING DATA SUMMARY FOR SEPTEMBER 2006 - OCTOBER 2010 AREAS 1 & 2 (AEROBIC TREATMENT)

ARCADIS

FIGURE 5



MW-8SR

Date	6/05	11/06	6/07	8/07	11/07	3/08	8/08	3/09	6/09	9/09	4/10	10/10
Acetone	NA	28	58	NA	<5.0 J	<10 [9.6 J]	8.2 J [<10]	6.5 J [5.8 J]	NA	<10 [8.3 J]	<10 [<10]	<10
Benzene	NA	16	14	NA	12	5.5 [5.7]	11 [11]	8.8 [8.8]	NA	8.5 J [7.9]	4.2 [3.5]	2.7
Ethylbenzene	NA	84	83	NA	73	70 [68]	70 [70]	55 [63]	NA	44 J [38]	23 J [18]	18
Methylene Chloride	NA	<3.0	<8.0	NA	<3.0	<8.0 [<8.0]	<8.0 [<8.0]	<1.0 [<1.0]	NA	<1.0 [<1.0]	<1.0 [<1.0]	<1.0
Toluene	NA	100	110	NA	22	22 [22]	24 [22]	10 [10]	NA	8.8 J [8.5]	4.8 [3.7]	2.0
Trichloroethene	NA	<1.0	<2.0	NA	<1.0	<2.0 [<2.0]	<2.0 [<2.0]	<1.0 [<1.0]	NA	<1.0 J [<1.0]	<1.0 [<1.0]	<1.0
Xylenes (total)	NA	270	250	NA	210	160 [160]	190 [190]	140 [140]	NA	61 J [71]	41 [33]	31
Aniline	52000 [51000]	28000	2700	17000	22000 J	6800 [8200]	32000 [25000]	2200 [1800]	7000 J	4900 [3400]	370 J [720 J]	220
N,N-Dimethylaniline	<520 [<520]	<200	<22	<100	<100 J	<25 [<50]	<250 [<250]	<12 [<12]	<50 J	<20 [<20]	1.0 J [<5.0]	1.6
Methanol	NA	<500	<500	NA	<500	<500 [<500]	<500 [<500]	<500 [<500]	NA	<500 [<500]	<500 [<500]	NA

PZ-5S

Date	11/06	11/07	8/08	9/09
Acetone	R	<5.0 J	<5.0	<10 J
Benzene	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<1.0
Toluene	<5.0	<5.0	<5.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<3.0
Aniline	<1.0	<5.0	<5.3	<5.0
N,N-Dimethylaniline	<1.0 J	<0.50	<0.50	<1.0
Methanol	<500	<500	<500	<500

PZ-5D

Date	11/06	11/07	8/08	9/09
Acetone	R	<5.0 J	<5.0	<10 J
Benzene	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<1.0
Toluene	<5.0	<5.0	<5.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<3.0
Aniline	<1.0	<5.0	<5.1	<5.0
N,N-Dimethylaniline	<1.0 J	<0.50	<0.50	<1.0
Methanol	<500	<500	<500	<500

MW-17R

Date	11/06	6/07	11/07	3/08	8/08	3/09	9/09	4/10	10/10
Acetone	R	<5.0	<5.0	<5.0	2.3 J	<10	<10 J	<10	<10
Benzene	<1.0	0.70 J	<1.0	<1.0	1.8	2.3	0.86 J	0.22 J	1.3
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<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	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0	<3.0	<3.0	<3.0
Aniline	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.6
N,N-Dimethylaniline	<1.0 J	<1.0	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.1
Methanol	<500	<500	<500 J	<500	<500	<500	<500	<500	<500 J

MW-19

Date	11/06	6/07	11/07	3/08	8/08	3/09	9/09	4/10
Acetone	R	<5.0	<5.0 J	<5.0	<5.0	<10	<10 J	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0	<3.0	<3.0
Aniline	<1.0	<5.5	<5.0	<5.0	<5.6	<5.0	<5.0	<5.0
N,N-Dimethylaniline	<1.0 J	<1.1	<0.50	<0.50	<0.60	<0.50	<1.0	<1.0
Methanol	<500	<500	<500	<500	<500	<500	<500	<500

PZ-4S

Date	6/07	3/08	3/09	4/10	Jun-10
Acetone	<5.0	<5.0	<10	<10	<10 [<10]
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0 [<1.0]
Ethylbenzene	<4.0	<4.0	<1.0	<1.0	<1.0 [<1.0]
Methylene Chloride	<3.0	<3.0	<1.0	17	<1.0 [<1.0]
Toluene	<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]
Xylenes (total)	<5.0	<5.0	<3.0	<3.0	<3.0 [<3.0]
Aniline	<5.5	<5.0	<5.0	NA	
N,N-Dimethylaniline	<1.1	<0.50	<0.50	<1.0	NA
Methanol	<500	<500	<500	<500	NA

PZ-4D

Date	6/07	3/08	3/09	4/10	Jun-10
Acetone	<5.0	<5.0	<10	<10	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<1.0	5.3 J	<1.0
Toluene	<5.0	<5.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<3.0	<3.0	<3.0
Aniline	<5.5	<5.0	<5.0	<5.0	NA
N,N-Dimethylaniline	<1.1	<0.50	<0.50	<1.0	NA
Methanol	<500	<500	<500	<500	NA

MW-24DR

Date	11/07	8/08	9/09
Acetone	<5.0	<5.0	<10
Benzene	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<1.0
Methylene Chloride	<3.0	<3.0	<1.0
Toluene	<5.0	<5.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<3.0
Aniline	<5.0	<5.7	<5.0
N,N-Dimethylaniline	<0.50	<0.60	<1.0
Methanol	<500	<500	<500

MW-24SR

Date	11/07	8/08	9/09
Acetone	<5.0	<5.0	<10
Benzene	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<1.0
Methylene Chloride	<3.0	<3.0	<1.0
Toluene	<5.0	<5.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<3.0
Aniline	<5.0	<5.7	<5.0
N,N-Dimethylaniline	<0.50	<0.60	<1.0
Methanol	<500	<500	<500

PZ-4D

Date	6/07	3/08	3/09	4/10	Jun-10
Acetone	<5.0	<5.0	<10	<10	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<1.0	5.3 J	<1.0
Toluene	<5.0	<5.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<3.0	<3.0	<3.0
Aniline	<5.5	<5.0	<5.0	<5.0	NA
N,N-Dimethylaniline	<1.1	<0.50	<0.50	<1.0	NA
Methanol	<500	<500	<500	<500	NA

MW-27

Date	6/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09	6/09	9/09	4/10	10/10
Acetone	NA	31 [24]	21	NA	<5.0 J [<5.0]	21	3.8 J	14 J	NA	10 J	<10	<10
Benzene	NA	14 [14]	8.4	NA	8.6 [8.9]	9.4	5.0	8.7	NA	8.2	4.3	2.7
Ethylbenzene	NA	42 [45]	14	NA	8.6 [7.2]	43	1.8 J	36	NA	5.9	8.1	1.4
Methylene Chloride	NA	<3.0 [<3.0]	<3.0	NA	<3.0 [<3.0]	<8.0	<3.0	<1.0	NA	<1.0	<1.0	<1.0
Toluene	NA	71 [71]	9.5	NA	4.7 J [4.1 J]	23	2.2 J	9.4	NA	6.9	2.4	1.3
Trichloroethene	NA	<1.0 [<1.0]	<1.0	NA	<1.0 [<1.0]	<2.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0
Xylenes (total)	NA	91 [110]	24	NA	24 [21]	66	16	88	NA	23	10	3.4
Aniline	1700	33000 [33000]	1100	<10 J [4300 J]	3000 J [3800 J]	13000	2400	8200 J	7400 J [10000 J]	2100	1300	220
N,N-Dimethylaniline	<10	<210 [<200]	<10	<1.0 [<20]	<25 J [<25 J]	<100	<50	<50 J	<50 J [<100 J]	<10	<10	2.5
Methanol	NA	<500 [<500]	<500	NA	<500 [<500]	<500	<500	<500	NA	<500	<500	NA

MW-18

Date	11/06	6/07	11/07	3/08	8/08	3/09	9/09	4/10	10-Jun	10/10
Acetone	R	<5.0	<5.0	<5.0	5.5	<10	<10 J	<10	<10	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	33	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<5.0	<5.6	<5.0	<5.0	NA	<5.1	
N,N-Dimethylaniline	<1.0 J	<1.0	<0.50	<0.50	<0.60	<0.50	<1.0	<1.0	NA	<1.0
Methanol	<500	<500	<500	<500	<500	<500	<500	<500	NA	<500 J

MW-30

Date	11/06	6/07	11/07	3/08	8/08	3/09	9/09	4/10	10/10
Acetone	11	<5.0	<5.0 J	<5.0	<5.0	<10	<10	<10	<10 J
Benzene	1	<1.0	0.80 J	0.60 J	0.70 J	0.80 J	0.78 J	<1.0	0.14 J
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0	37
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	0.17 J	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	0.20 J	<5.0	<3.0	<3.0	<3.0	<3.0
Aniline	20	30	49	3.0 J	31	<5.0	21	<5.0	<5.1
N,N-Dimethylaniline	<1.0	<1.1	<0.50	0.7	<0.50	<0.50	<1.0	<1.0	<1.0
Methanol	<500	<500	<500	<500	<500	<500	<500	<500	NA

MW-23S

Date	11/06	6/07	11/07	3/08	8/08	3/09	9/09	4/10	10/10
Acetone	R	<5.0	<5.0	<5.0	<5.0	<10	<10 J	<10	3.7 J
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<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	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0	<3.0	<3.0	<3.0
Aniline	<1.0	<5.0	<5.0	<5.0	<5.6	<5.0	<5.0	<5.0	<5.0
N,N-Dimethylaniline	<1.0 J	<1.0	<0.50	<0.50	<0.60	<0.50	<1.0	<1.0	<1.0
Methanol	<500	<500	<500	<500	<500	<500	<500	<500	<500 J

MW-28

Date	6/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09	9/09	4/10	10/10
Acetone	NA	12	1.3	NA	<5.0 J	<5.0	<5.0	<5.0	<10	<10	<10
Benzene	NA	8.2	4.8	NA	4.9	4.0	3.8	3.5	3.1	2.8	1.8
Ethylbenzene	NA	5.8	0.80 J	NA	1.4 J	1.6 J	<4.0	0.80 J	0.32 J	0.60 J	<1.0
Methylene Chloride	NA	<3.0	<3.0	NA	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0
Toluene	NA	1.4 J	0.40 J	NA	0.50 J	0.50 J	<5.0	0.30 J	0.25 J	0.23 J	<1.0
Trichloroethene	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	NA	4.4 J	0.60 J	NA	0.80 J	1.3 J	<5.0	1.1 J	0.48 J	0.46 J	<3.0
Aniline	280	1000	60	42	29 J	81	0.70 J	18	6.7	<5.0	2.4 J
N,N-Dimethylaniline	<2.2	<5.2	<1.0	<1.0	<0.50 J	0.9	<0.50	<0.50	<1.0	0.49 J	0.60 J
Methanol	NA	<500	<500	NA	<500	<500	<500	850	<500	<500	<500 J

MW-29

Date	11/06	6/07	11/07	3/08	8/08	3/09	9/09	4/10	10/10
Acetone	5.4	<5.0	<5.0 J	<5.0	<5.0	<10	<10	<10	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	0.16 J	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	0.50 J	<5.0	<5.0	<5.0	<3.0	<3.0	<3.0	<3.0
Aniline	0.40 J	<5.5	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.2
N,N-Dimethylaniline	<1.0	<1.1	<0.50 J	<0.50	<0.50	<0.50	<0.50	0.29 J	<1.0
Methanol	<500	<500	<500	<500	<500	<500	<500	<500	NA

MW-25D

Date	5/07	3/08	3/09	4/10
Acetone	12 J	<5.0	<10	<10
Benzene	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<1.0
Methylene Chloride	<3.0	<3.0	<1.0	<1.0
Toluene	<5.0	<5.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<3.0	<3.0
Aniline	<5.0	<5.0	<5.0	<5.0
N,N-Dimethylaniline	<1.0	<0.50	<0.50	<1.0
Methanol	<500	<500	<500	<500

MW-25S

Date	11/06	6/07	11/07	3/08	8/08	3/09	9/09	4/10
Acetone	R	<5.0	<5.0	<5.0	<5.0	<10	<10 J	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0	<3.0	<3.0
Aniline	<1.0	<5.0	<5.0	<5.0	<5.2	<5.0	<5.0	<5.0
N,N-Dimethylaniline	<1.0 J	<1.0	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0
Methanol	<500	<500	<500	<500	<500	<500	<500	<500

MW-23

Date	11/06	6/07	11/07	3/08	8/08	3/09	9/09	4/10	Jun-10	10/10
Acetone	R	<5.0	<5.0	<5.0	<5.0	<10	<10 J	<10	<10	<10
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	8.4	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	<5.0	<5.0	<5.0	<5.0	<5.0	<3.0	<3.0	<3.0	<3.0	<3.0
Aniline	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0
N,N-Dimethylaniline	<1.0 J	<1.0	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	NA	<1.0
Methanol	<500	<500	<500	<500	<500	<500	<500	<500	NA	<500 J

LEGEND:

- UTILITY POLE
- CATCH BASIN
- PETROLEUM PIPE LINE MARKER
- 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
- MW-8S REMOVED GROUNDWATER MONITORING WELL
- APPROXIMATE BOUNDARY OF AREA
- GROUNDWATER WITHDRAWAL TRENCH
- GROUNDWATER INFILTRATION TRENCH AND IDENTIFICATION
- PIPING TO BUILDING
- PIPING FROM BUILDING

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. 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.
11. 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).
12. NS – STANDARD NOT AVAILABLE.

SAMPLE IDENTIFICATION

MW-28

Date	6/06	11/06	6/07	8/07	11/07	3/08	8/08	3/09	9/09	4/10	10/10
Acetone	NA	12	1.3	NA	<5.0 J	<5.0	<5.0	<5.0	<10	<10	<10
Benzene	NA	8.2	4.8	NA	4.9	4.0	3.8	3.5	3.1	2.8	1.8
Ethylbenzene	NA	5.8	0.80 J	NA	1.4 J	1.6 J	<4.0	0.80 J	0.32 J	0.60 J	<1.0
Methylene Chloride	NA	<3.0	<3.0	NA	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0
Toluene	NA	1.4 J	0.40 J	NA	0.50 J	0.50 J	<5.0	0.30 J	0.25 J	0.23 J	<1.0
Trichloroethene	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	NA	4.4 J	0.50 J	NA	0.80 J	1.3 J	<5.0	1.1 J	0.48 J	0.46 J	<3.0
Aniline	280	1000	60	42	29 J	81	0.70 J	18	6.7	<5.0	2.4 J
N,N-Dimethylaniline	<2.2	<5.2	<1.0	<1.0	<0.50 J	0.9	<0.50	<0.50	<1.0	0.49 J	0.60 J
Methanol	NA	<500	<500	NA	<500	<500	<500	850	<500	<500	<500 J

DETECTIONS EXCEEDING NYSDEC GROUNDWATER QUALITY STANDARDS ARE INDICATED BY SHADING.

CONCENTRATION (ppb)

NYSDEC GQS

Acetone	50
Benzene	1
Toluene	5
Ethylbenzene	5
Xylene	5
Methanol	NS
Trichloroethene	5
Aniline	5
N,N-dimethylaniline	1
Methylene Chloride	5

0 100' 200'

GRAPHIC SCALE

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

GROUNDWATER MONITORING DATA SUMMARY FOR SEPTEMBER 2006 - OCTOBER 2010 AREA 3 (AEROBIC TREATMENT)

ARCADIS

FIGURE 6

ARCADIS

Attachment B

Validated Analytical Laboratory Report

ARCADIS

Infrastructure · Water · Environment · Buildings

Imagine the result

McKesson Bear Street

Data Usability Summary Report

SYRACUSE, NEW YORK

Volatile, Semivolatile and Methanol Analyses

SDG #460-39035

Analyses Performed By:
TestAmerica Laboratories
Edison New Jersey

Report #16170R
Project: B0026003.0000.00010

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #460-39035 for samples collected in association with the McKesson Bear Street Site. Included with this assessment are the corrected sample results, sample compliance report, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
MW-8SR	460-39035-1	Water	4/12/2012		X	X			
MW-27	460-39035-2	Water	4/12/2012		X	X			
MW-9S	460-39035-3	Water	4/12/2012		X	X			X
MW-36R	460-39035-4	Water	4/12/2012		X	X			
MW-34	460-39035-5	Water	4/12/2012		X	X			X
MW-31	460-39035-6	Water	4/12/2012		X	X			X
TW-02RRR	460-39035-7	Water	4/12/2012		X	X			X
BD-01-041212	460-39035-8	Water	4/12/2012	MW-8SR	X	X			
BD-02-041212	460-39035-9	Water	4/12/2012	TW-02RRR	X	X			X
Trip Blank	460-39035-10	Water	4/12/2012		X				
Trip Blank	460-39035-11	Water	3/21/2012		X				

Note:

1. Miscellaneous parameters include Methanol analysis by SW846 8015B.
2. Matrix spike/matrix spike duplicate analysis was performed on sample location MW-9S for Methanol anlaysis.

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

Note:

1. Sample Date for sample location Trip Blank was mislabelled on Chain of Custody. Correct date is 3/21/12.
2. Sample location Trip Blank (4/12/12) is not listed on Chain of Custody.

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8260B, 8270C and 8015B as referenced in NYSDEC ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

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.

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°C±2°C; preserved to a pH of less than 2 s.u.

s.u. Standard units

The analyses that exceeded the holding are presented in the following table.

Sample Locations	Holding Time	Criteria
Trip Blank (3/21/12)	24 days	< 14 days

Sample results associated with sample locations analyzed by analytical method SW-846 8260B were qualified, as specified in the table below. All other holding times were met.

Criteria	Qualification	
	Detected Analytes	Non-detect Analytes
Analysis completed less than two times holding time	J	UJ
Analysis completed greater than two times holding time	J	R

Sample Date for sample location TB was mislabelled on Chain of Custody. Correct date is 3/21/12.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and 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.

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 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

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

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	Compound	Criteria
MW-8SR MW-27 MW-9S MW-36R MW-34 MW-31 TW-02RRR BD-01-041212 BD-02-041212 Trip Blank (4/12/12) Trip Blank (3/12/12)	CCV %D	Acetone	-29.1%

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

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

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., 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 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 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 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 a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established 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.

A MS/MSD was not performed on a sample location associated with the SDG.

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

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

9. Field Duplicate Analysis

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 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 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-8SR/BD-01-041212	Acetone	8.7J	6.7J	AC
	Benzene	1.2	1.7	AC
	Ethylbenzene	2.3	3.3	AC
	Toluene	0.76J	1.2	AC
	Xylenes, Total	9.5	15	AC
TW-02RRR/BD-02-041212	Acetone	15J	13J	AC
	Benzene	1.6	1.5	AC
	Ethylbenzene	0.73J	0.76J	AC
	Toluene	0.51J	0.48J	AC
	Xylenes, Total	1.6J	1.6J	AC

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were 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

Sample Date for sample location Trip Blank was mislabelled on Chain of Custody. Correct date is 3/21/12.

Sample location Trip Blank (4/12/12) is not listed on Chain of Custody

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 blanks					X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)					X
Matrix Spike Duplicate(MSD)					X
MS/MSD Precision (RPD)					X
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		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. Transcription/calculation errors present				X	

VOCs: SW-846 8260B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%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	Cooled @ 4°C ± 2

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and 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.

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 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

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

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.

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

Sample Locations	Surrogate	Recovery
TW-02RRR BD-02-041212	2-Fluorobiphenyl	D
	2-Fluorophenol	D
	Nitrobenzene-d5	D
	Phenol-d5	D
	Terphenyl-d14	D
	2,4,6-Tribromophenol	D

D Diluted

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
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	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.

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 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 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 a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established 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.

The MS/MSD analysis was not performed on a sample location within this SDG.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

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

9. Field Duplicate Analysis

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 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 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-8SR/BD-01-041212	n,n'-Dimethylaniline	2.4	2.6	AC
TW-02RRR/BD-02-041212	Aniline	1400J	1600J	13.3%

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were 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 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 blanks					X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R					X
Matrix Spike Duplicate(MSD) %R					X
MS/MSD Precision (RPD)					X
Field Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		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. Transcription/calculation errors present				X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

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

METHANOL 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 8015B	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and 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 reporting limit (RL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were 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

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

4.2 Continuing Calibration

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.

All surrogate recoveries were within control limits.

6. 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 a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established 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.

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

7. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

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

8. Field Duplicate Analysis

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 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 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
TW-02RRR/BD-02-041212	Methanol	ND(500)	ND(500)	AC

AC Acceptable

The field duplicate results were acceptable.

9. Compound Identification

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

All identified compounds 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 8015	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) %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/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
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 the established RT windows					X
C. Pattern identification					X
D. Transcription/calculation errors present					X
E. Reporting limits adjusted to reflect sample dilutions					X

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference

VALIDATION PERFORMED BY: Julie R. Tantalo

SIGNATURE: Julie R. Tantalo

DATE: June 6, 2012

PEER REVIEW: Dennis Capria

DATE: June 7, 2012

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliancy[1]					Non-compliance
					VOC	SVOC	PCB	MET	MISC	
460-39035	4/12/2012	SW-846	MW-8SR	Water	no	yes	--	--	--	VOC-Continuing Calibration %D
	4/12/2012	SW-846	MW-27	Water	no	yes	--	--	--	VOC-Continuing Calibration %D
	4/12/2012	SW-846	MW-9S	Water	no	yes	--	--	yes	VOC-Continuing Calibration %D
	4/12/2012	SW-846	MW-36R	Water	no	yes	--	--	--	VOC-Continuing Calibration %D
	4/12/2012	SW-846	MW-34	Water	no	yes	--	--	yes	VOC-Continuing Calibration %D
	4/12/2012	SW-846	MW-31	Water	no	yes	--	--	yes	VOC-Continuing Calibration %D
	4/12/2012	SW-846	TW-02RRR	Water	no	no	--	--	yes	VOC-Continuing Calibration %D SVOC-Surrogate Recovery
	4/12/2012	SW-846	BD-01-041212	Water	no	yes	--	--	--	VOC-Continuing Calibration %D
	4/12/2012	SW-846	BD-02-041212	Water	no	no	--	--	yes	VOC-Continuing Calibration %D SVOC-Surrogate Recovery
	4/12/2012	SW-846	Trip Blank	Water	no	--	--	--	--	VOC-Continuing Calibration %D
	3/12/2012	SW-846	Trip Blank	Water	no	--	--	--	--	VOC-Holding Time

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: LENA TERRELL / KELLEY ROE	Lab PM: Chang, Grace	Carrier Tracking No(s):	COC No: 460-25048-16231.5
Client Contact: ~~Accounts Payable~~ DAWN PENNIMAN	Phone: 315-263-2167	E-Mail: grace.chang@testamericainc.com		Page: Page 5 of 5
Company: ARCADIS U.S. Inc				Job #: 3035
Address: ~~630 Plaza Drive, Suite 600~~ 6723 TOWPATH RD	Due Date Requested:	Analysis Requested		
City: ~~Highlands Ranch~~ SYRACUSE	TAT Requested (days): STANDARD			
State, Zip: ~~CO, 80129~~ NY 13214	PO #: Purchase Order Requested			
Phone: 315 446 9120	WO #:			
Email: ~~accountspayable.administration@arcadis-us.com~~	Project #: 46003506			
Project Name: McKesson Former Bear Street Facility	SSOW#:			
Site: BEAR ST				

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	8260B - (MOD) 8260-Special Compound List	8270C - (MOD) 8270-Special Compound List	8015B_DAI - (MOD) 8015B-Methanol	Total Number of containers	Special Instructions/Note:
MW-8SR	4-12-12	1025	G	Water	X	N			1
MW-27		1240	G	Water	X	N	X		2
MW-9S		1435	G	Water	X	N	N		3
MW-36R		1330	G	Water	X	N			4
MW-34		1100	G	Water	X	N	N		5
MW-31		1635	G	Water	X	N	N		6
TW-02RR		1550	G	Water	X	N	N		7
BD-01-041212		—	G	Water	X	N			8
BD-02-041212		—	G	WATER	X	N	N		9
TB	3-12-12	—	G	WATER	X				

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by: [signature]	Date/Time: 4/12/12 18:50	Company: ARCADIS	Received by: [signature]	Date/Time: 4-12-12 18:50	Company: SYR
Relinquished by: [signature]	Date/Time: 04-12-12, 19:30	Company: SYR	Received by: [signature]	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by: [signature]	Date/Time: 4/13/2012 1000	Company: DA E

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.: 468029 / 468080 / 468029
Cooler Temperature(s) °C and Other Remarks: 5.2 / 3.6 / 4.0

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

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

Lab Sample ID: 460-39035-1
Client Matrix: Water

Date Sampled: 04/12/2012 1025
Date Received: 04/13/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109356	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a74963.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/14/2012 0335			Final Weight/Volume:	5 mL
Prep Date:	04/14/2012 0335				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	8.7	J	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	1.2		0.080	1.0
Toluene	0.76	J	0.15	1.0
Ethylbenzene	2.3		0.10	1.0
Xylenes, Total	9.5		0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
Bromofluorobenzene	100		70 - 130
Toluene-d8 (Surr)	96		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: **MW-27**

Lab Sample ID: 460-39035-2
Client Matrix: Water

Date Sampled: 04/12/2012 1240
Date Received: 04/13/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109356	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a74964.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/14/2012 0404			Final Weight/Volume:	5 mL
Prep Date:	04/14/2012 0404				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	UJ	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	1.5		0.080	1.0
Toluene	0.45	J	0.15	1.0
Ethylbenzene	1.4		0.10	1.0
Xylenes, Total	2.2	J	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
Bromofluorobenzene	98		70 - 130
Toluene-d8 (Surr)	94		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

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

Lab Sample ID: 460-39035-3
Client Matrix: Water

Date Sampled: 04/12/2012 1435
Date Received: 04/13/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109356	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a74965.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/14/2012 0441			Final Weight/Volume:	5 mL
Prep Date:	04/14/2012 0441				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	7.5	J	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	1.1		0.080	1.0
Toluene	1.5		0.15	1.0
Ethylbenzene	18		0.10	1.0
Xylenes, Total	67		0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		70 - 130
Bromofluorobenzene	100		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

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

Lab Sample ID: 460-39035-4
Client Matrix: Water

Date Sampled: 04/12/2012 1330
Date Received: 04/13/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109356	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a74966.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/14/2012 0500			Final Weight/Volume:	5 mL
Prep Date:	04/14/2012 0500				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	6.3	J	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	1.6		0.080	1.0
Toluene	0.45	J	0.15	1.0
Ethylbenzene	0.16	J	0.10	1.0
Xylenes, Total	1.9	J	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
Bromofluorobenzene	100		70 - 130
Toluene-d8 (Surr)	95		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: **MW-34**

Lab Sample ID: 460-39035-5
Client Matrix: Water

Date Sampled: 04/12/2012 1100
Date Received: 04/13/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109356	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a74967.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/14/2012 0521			Final Weight/Volume:	5 mL
Prep Date:	04/14/2012 0521				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	37	J	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	1.3		0.080	1.0
Toluene	0.59	J	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	1.4	J	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
Bromofluorobenzene	101		70 - 130
Toluene-d8 (Surr)	96		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: **MW-31**

Lab Sample ID: 460-39035-6
Client Matrix: Water

Date Sampled: 04/12/2012 1635
Date Received: 04/13/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109356	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a74968.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/14/2012 0541			Final Weight/Volume:	5 mL
Prep Date:	04/14/2012 0541				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	6.5	J	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	6.8		0.080	1.0
Toluene	0.65	J	0.15	1.0
Ethylbenzene	0.16	J	0.10	1.0
Xylenes, Total	2.7	J	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
Bromofluorobenzene	101		70 - 130
Toluene-d8 (Surr)	98		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

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

Lab Sample ID: 460-39035-7
Client Matrix: Water

Date Sampled: 04/12/2012 1550
Date Received: 04/13/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109356	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a74969.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/14/2012 0600			Final Weight/Volume:	5 mL
Prep Date:	04/14/2012 0600				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	15	J	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	1.6		0.080	1.0
Toluene	0.51	J	0.15	1.0
Ethylbenzene	0.73	J	0.10	1.0
Xylenes, Total	1.6	J	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Bromofluorobenzene	100		70 - 130
Toluene-d8 (Surr)	96		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: **BD-01-041212**

Lab Sample ID: 460-39035-8
Client Matrix: Water

Date Sampled: 04/12/2012 0000
Date Received: 04/13/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109356	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a74970.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/14/2012 0620			Final Weight/Volume:	5 mL
Prep Date:	04/14/2012 0620				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	6.7	J	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	1.7		0.080	1.0
Toluene	1.2		0.15	1.0
Ethylbenzene	3.3		0.10	1.0
Xylenes, Total	15		0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
Bromofluorobenzene	100		70 - 130
Toluene-d8 (Surr)	95		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: BD-02-041212

Lab Sample ID: 460-39035-9
Client Matrix: Water

Date Sampled: 04/12/2012 0000
Date Received: 04/13/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109356	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a74971.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/14/2012 0639			Final Weight/Volume:	5 mL
Prep Date:	04/14/2012 0639				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	13	J	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	1.5		0.080	1.0
Toluene	0.48	J	0.15	1.0
Ethylbenzene	0.76	J	0.10	1.0
Xylenes, Total	1.6	J	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Bromofluorobenzene	100		70 - 130
Toluene-d8 (Surr)	95		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: **Trip Blank**

Lab Sample ID: 460-39035-10
Client Matrix: Water

Date Sampled: 04/12/2012 0000
Date Received: 04/13/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109356	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a74962.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/14/2012 0316			Final Weight/Volume:	5 mL
Prep Date:	04/14/2012 0316				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	UJ	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.080	U	0.080	1.0
Toluene	0.15	U	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 130
Bromofluorobenzene	98		70 - 130
Toluene-d8 (Surr)	95		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: **Trip Blank**

Lab Sample ID: 460-39035-11
Client Matrix: Water

Date Sampled: 03/12/2012 0000
Date Received: 04/13/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109356	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a74961.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/14/2012 0257			Final Weight/Volume:	5 mL
Prep Date:	04/14/2012 0257				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U H J	0.18	1.0
Acetone	2.7	U H	2.7	10
Trichloroethene	0.090	U H	0.090	1.0
Benzene	0.080	U H	0.080	1.0
Toluene	0.15	U H	0.15	1.0
Ethylbenzene	0.10	U H	0.10	1.0
Xylenes, Total	0.36	U H J	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
Bromofluorobenzene	98		70 - 130
Toluene-d8 (Surr)	93		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

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

Lab Sample ID: 460-39035-1
Client Matrix: Water

Date Sampled: 04/12/2012 1025
Date Received: 04/13/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109919	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109481	Lab File ID:	x25391.d
Dilution:	1.0			Initial Weight/Volume:	970 mL
Analysis Date:	04/18/2012 2007			Final Weight/Volume:	2 mL
Prep Date:	04/16/2012 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	1.9	U	1.9	5.2
n,n'-Dimethylaniline	2.4		0.22	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	87		53 - 108
2-Fluorophenol	42		10 - 65
Nitrobenzene-d5	89		56 - 112
Phenol-d5	28		10 - 48
Terphenyl-d14	83		50 - 122
2,4,6-Tribromophenol	85		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: **MW-27**

Lab Sample ID: 460-39035-2
Client Matrix: Water

Date Sampled: 04/12/2012 1240
Date Received: 04/13/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109919	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109481	Lab File ID:	x25392.d
Dilution:	1.0			Initial Weight/Volume:	970 mL
Analysis Date:	04/18/2012 2032			Final Weight/Volume:	2 mL
Prep Date:	04/16/2012 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	1.9	U	1.9	5.2
n,n'-Dimethylaniline	2.7		0.22	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	88		53 - 108
2-Fluorophenol	43		10 - 65
Nitrobenzene-d5	93		56 - 112
Phenol-d5	26		10 - 48
Terphenyl-d14	82		50 - 122
2,4,6-Tribromophenol	87		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

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

Lab Sample ID: 460-39035-3
Client Matrix: Water

Date Sampled: 04/12/2012 1435
Date Received: 04/13/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109919	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109481	Lab File ID:	x25393.d
Dilution:	1.0			Initial Weight/Volume:	970 mL
Analysis Date:	04/18/2012 2056			Final Weight/Volume:	2 mL
Prep Date:	04/16/2012 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	1.9	U	1.9	5.2
n,n'-Dimethylaniline	6.3		0.22	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	84		53 - 108
2-Fluorophenol	38		10 - 65
Nitrobenzene-d5	88		56 - 112
Phenol-d5	29		10 - 48
Terphenyl-d14	80		50 - 122
2,4,6-Tribromophenol	85		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

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

Lab Sample ID: 460-39035-4
Client Matrix: Water

Date Sampled: 04/12/2012 1330
Date Received: 04/13/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109919	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109481	Lab File ID:	x25394.d
Dilution:	1.0			Initial Weight/Volume:	970 mL
Analysis Date:	04/18/2012 2120			Final Weight/Volume:	2 mL
Prep Date:	04/16/2012 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	150		1.9	5.2
n,n'-Dimethylaniline	4.1		0.22	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	90		53 - 108
2-Fluorophenol	42		10 - 65
Nitrobenzene-d5	91		56 - 112
Phenol-d5	25		10 - 48
Terphenyl-d14	86		50 - 122
2,4,6-Tribromophenol	76		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: **MW-34**

Lab Sample ID: 460-39035-5
Client Matrix: Water

Date Sampled: 04/12/2012 1100
Date Received: 04/13/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109919	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109481	Lab File ID:	x25395.d
Dilution:	1.0			Initial Weight/Volume:	970 mL
Analysis Date:	04/18/2012 2145			Final Weight/Volume:	2 mL
Prep Date:	04/16/2012 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	2.1	J	1.9	5.2
n,n'-Dimethylaniline	2.4		0.22	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	86		53 - 108
2-Fluorophenol	41		10 - 65
Nitrobenzene-d5	91		56 - 112
Phenol-d5	25		10 - 48
Terphenyl-d14	85		50 - 122
2,4,6-Tribromophenol	85		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: MW-31

Lab Sample ID: 460-39035-6
Client Matrix: Water

Date Sampled: 04/12/2012 1635
Date Received: 04/13/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109919	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109481	Lab File ID:	x25396.d
Dilution:	1.0			Initial Weight/Volume:	970 mL
Analysis Date:	04/18/2012 2209			Final Weight/Volume:	2 mL
Prep Date:	04/16/2012 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	1.9	U	1.9	5.2
n,n'-Dimethylaniline	2.1		0.22	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	84		53 - 108
2-Fluorophenol	44		10 - 65
Nitrobenzene-d5	91		56 - 112
Phenol-d5	28		10 - 48
Terphenyl-d14	83		50 - 122
2,4,6-Tribromophenol	89		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: TW-02RRR

Lab Sample ID: 460-39035-7
Client Matrix: Water

Date Sampled: 04/12/2012 1550
Date Received: 04/13/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-110018	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109481	Lab File ID:	x25445.d
Dilution:	10			Initial Weight/Volume:	970 mL
Analysis Date:	04/19/2012 1923	Run Type:	DL	Final Weight/Volume:	2 mL
Prep Date:	04/16/2012 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	1400	~~D~~ J	19	52
n,n'-Dimethylaniline	2.2	U J	2.2	10

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: 460-39035-1

Client Sample ID: **BD-01-041212**

Lab Sample ID: 460-39035-8
Client Matrix: Water

Date Sampled: 04/12/2012 0000
Date Received: 04/13/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109919	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109481	Lab File ID:	x25398.d
Dilution:	1.0			Initial Weight/Volume:	970 mL
Analysis Date:	04/18/2012 2259			Final Weight/Volume:	2 mL
Prep Date:	04/16/2012 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	1.9	U	1.9	5.2
n,n'-Dimethylaniline	2.6		0.22	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	87		53 - 108
2-Fluorophenol	41		10 - 65
Nitrobenzene-d5	87		56 - 112
Phenol-d5	24		10 - 48
Terphenyl-d14	81		50 - 122
2,4,6-Tribromophenol	83		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: **BD-02-041212**

Lab Sample ID: 460-39035-9
Client Matrix: Water

Date Sampled: 04/12/2012 0000
Date Received: 04/13/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-110018	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109481	Lab File ID:	x25446.d
Dilution:	10			Initial Weight/Volume:	970 mL
Analysis Date:	04/19/2012 1948	Run Type:	DL	Final Weight/Volume:	2 mL
Prep Date:	04/16/2012 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	1600	~~D~~ J	19	52
n,n'-Dimethylaniline	2.2	U J	2.2	10

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: 460-39035-1

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

Lab Sample ID: 460-39035-3
Client Matrix: Water

Date Sampled: 04/12/2012 1435
Date Received: 04/13/2012 1000

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-109704	Instrument ID:	BNAGC7
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	04/17/2012 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	99		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: **MW-34**

Lab Sample ID: 460-39035-5
Client Matrix: Water

Date Sampled: 04/12/2012 1100
Date Received: 04/13/2012 1000

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-109704	Instrument ID:	BNAGC7
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	04/17/2012 0343			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	74		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: **MW-31**

Lab Sample ID: 460-39035-6
Client Matrix: Water

Date Sampled: 04/12/2012 1635
Date Received: 04/13/2012 1000

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-109704	Instrument ID:	BNAGC7
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	04/17/2012 0350			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	101		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

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

Lab Sample ID: 460-39035-7
Client Matrix: Water

Date Sampled: 04/12/2012 1550
Date Received: 04/13/2012 1000

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-109704	Instrument ID:	BNAGC7
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	04/17/2012 0357			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	104		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-39035-1

Client Sample ID: **BD-02-041212**

Lab Sample ID: 460-39035-9
Client Matrix: Water

Date Sampled: 04/12/2012 0000
Date Received: 04/13/2012 1000

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-109704	Instrument ID:	BNAGC7
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	04/17/2012 0404			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	78		47 - 132

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Data Usability Summary Report

SYRACUSE, NEW YORK

Volatile, Semivolatile and Methanol Analyses

SDG #460-38989

Analyses Performed By:
TestAmerica Laboratories
Edison New Jersey

Report #16171R
Project: B0026003.0000.00010

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #460-38989 for samples collected in association with the McKesson Bear Street Site. Included with this assessment are the corrected sample results, sample compliance report, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
MW-4S	460-38989-1	Water	4/11/2012		X	X			
MW-35	460-38989-2	Water	4/11/2012		X	X			X
MW-32	460-38989-3	Water	4/11/2012		X	X			X
MW-28	460-38989-4	Water	4/11/2012		X	X			X
MW-29	460-38989-5	Water	4/11/2012		X	X			
MW-33	460-38989-6	Water	4/11/2012		X	X			
TW-01	460-38989-7	Water	4/11/2012		X	X			X
TB	460-38989-8	Water	3/21/2012		X				
MW-3S	460-38989-9	Water	4/11/2012		X	X			

Note:

1. Miscellaneous parameters include Methanol analysis by SW846 8015B.
2. Matrix spike/matrix spike duplicate analysis was performed on sample location MW-35 for volatile, semi-volatile, and methanol anlaysis.

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 8260B, 8270C and 8015B as referenced in NYSDEC ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

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.

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°C±2°C; preserved to a pH of less than 2 s.u.

s.u. Standard units

The analyses that exceeded the holding are presented in the following table.

Sample Locations	Holding Time	Criteria
TB	Analysis Completed	25 days

Sample results associated with sample locations analyzed by analytical method SW-846 8260B were qualified, as specified in the table below. All other holding times were met.

Criteria	Qualification	
	Detected Analytes	Non-detect Analytes
Analysis completed less than two times holding time	J	UJ
Analysis completed greater than two times holding time	J	R

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and 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.

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 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

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

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. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within 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 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 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 a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established 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 locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
MW-35	Acetone	<LL but >10%	AC

LL Lower limit
AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

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

9. Field Duplicate Analysis

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 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 5 times the RL, a control limit of two times the RL is applied for water matrices.

A field duplicate analysis was not performed on a sample location within this SDG.

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 blanks					X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)		X	X		
Matrix Spike Duplicate(MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)					X
Surrogate Spike Recoveries		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. Transcription/calculation errors present				X	

VOCs: SW-846 8260B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%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	Cooled @ 4°C ± 2

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and 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.

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 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

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

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.

All surrogate recoveries were within 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 SVOC 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 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 a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established 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.

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

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

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

9. Field Duplicate Analysis

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 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 5 times the RL, a control limit of two times the RL is applied for water matrices.

A field duplicate analysis was not performed on a sample location within this SDG.

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 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 blanks					X
Laboratory Control Sample (LCS) %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 Duplicate (RPD)					X
Surrogate Spike Recoveries		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. Transcription/calculation errors present				X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

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

METHANOL 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 8015B	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and 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 reporting limit (RL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were 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

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

4.2 Continuing Calibration

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.

All surrogate recoveries were within control limits.

6. 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 a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established 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.

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

7. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

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

8. Field Duplicate Analysis

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 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 5 times the RL, a control limit of two times the RL is applied for water matrices.

A field duplicate analysis was not performed on a sample location within this SDG.

9. Compound Identification

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

All identified compounds 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 8015	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) %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/Lab Duplicate (RPD)					X
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
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 the established RT windows					X
C. Pattern identification					X
D. Transcription/calculation errors present					X
E. Reporting limits adjusted to reflect sample dilutions					X

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference

VALIDATION PERFORMED BY: Julie R. Tantalo

SIGNATURE: Julie R Tantalo

DATE: May 29, 2012

PEER REVIEW: Dennis Capria

DATE: June 1, 2012

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliancy[1]					Non-compliance
					VOC	SVOC	PCB	MET	MISC	
460-38989	4/11/2012	SW-846	MW-4S	Water	yes	yes	--	--	--	
	4/11/2012	SW-846	MW-35	Water	no	yes	--	--	yes	VOC-Matrix spike percent recovery
	4/11/2012	SW-846	MW-32	Water	yes	yes	--	--	yes	
	4/11/2012	SW-846	MW-28	Water	yes	yes	--	--	yes	
	4/11/2012	SW-846	MW-29	Water	yes	yes	--	--	--	
	4/11/2012	SW-846	MW-33	Water	yes	yes	--	--	--	
	4/11/2012	SW-846	TW-01	Water	yes	yes	--	--	yes	
	3/21/2012	SW-846	TB	Water	no	--	--	--	--	VOC-Holding Time
	4/11/2012	SW-846	MW-3S	Water	yes	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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: LEVIA TERRELL / KELLEY BOE-	Lab PM: Chang, Grace / EDISON	Carrier Tracking No(s):	COC No: 460-25048-18231.1
Client Contact: ~~Accounts Payable~~ DAWN PENNIMAN	Phone: 315-263-2167	E-Mail: grace.chang@testamericainc.com		Page: Page 1 of 5
Company: ~~ARCADIS U.S. Inc~~ ARCADIS				Job #: 38589
Address: ~~630 Plaza Drive, Suite 600~~ 6723 TOWPATH RD	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Highlands Ranch SYRACUSE	TAT Requested (days): STANDARD			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify)
State, Zip: ~~CO, 80129~~ 13214	PO #: Purchase Order Requested			
Phone: 315-446-9120	WO #:			Other:
Email: accountspayable.administration@arcadis-us.com	Project #: 46003506			
Project Name: McKesson Former Bear Street Facility	SSOW#:			
Site: BEAR ST SYRACUSE NY				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	8260B (MOD) List-Special Compound List	8270C (MOD) 8270-Special Compound List	8015B (M) - (MOD) 8015B-Methanol												Special Instructions/Note:
MW-45	4-11-12	1115	G	Water	A	N													1
MW-35		1305	G	Water	XA	N	N												2
MW-32		1500		Water	A	N	N												3
MW-28		1220		Water	A	N	N												4
MW-29		1105		Water	A	N													5
MW-33		1435		Water	A	N													6
TW-01		1630	N	Water	A	N	N												7
TB	3-21-12	1200	G	Water	A														8
MW-35	4-11-12	1700	G	Water	A	N													9
				Water															
				Water															

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	04-11-12, 18:20	ARCADIS		04-11-12, 18:20	SyR
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	04-11-12, 19:05	SyR			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	4/12/2012 1200				

Custody Seals Intact: △ Yes △ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
	468001 / 002 / 003 / 004	1.0 / 3.6 / 4.2 / 4.0

04/26/2012

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **MW-4S**

Lab Sample ID: 460-38989-1
Client Matrix: Water

Date Sampled: 04/11/2012 1115
Date Received: 04/12/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109391	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a75018.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/15/2012 1037			Final Weight/Volume:	5 mL
Prep Date:	04/15/2012 1037				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	U	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.080	U	0.080	1.0
Toluene	0.15	U	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 130
Bromofluorobenzene	97		70 - 130
Toluene-d8 (Surr)	91		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **MW-35**

Lab Sample ID: 460-38989-2
Client Matrix: Water

Date Sampled: 04/11/2012 1305
Date Received: 04/12/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109391	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a75019.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/15/2012 1057			Final Weight/Volume:	5 mL
Prep Date:	04/15/2012 1057				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	14	J	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.080	U	0.080	1.0
Toluene	0.15	U	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
Bromofluorobenzene	96		70 - 130
Toluene-d8 (Surr)	92		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **MW-32**

Lab Sample ID: 460-38989-3
Client Matrix: Water

Date Sampled: 04/11/2012 1500
Date Received: 04/12/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109391	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a75025.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/15/2012 1255			Final Weight/Volume:	5 mL
Prep Date:	04/15/2012 1255				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	U	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.080	U	0.080	1.0
Toluene	0.15	U	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Bromofluorobenzene	102		70 - 130
Toluene-d8 (Surr)	95		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **MW-28**

Lab Sample ID: 460-38989-4
Client Matrix: Water

Date Sampled: 04/11/2012 1220
Date Received: 04/12/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109391	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a75026.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/15/2012 1316			Final Weight/Volume:	5 mL
Prep Date:	04/15/2012 1316				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	U	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	1.4		0.080	1.0
Toluene	0.22	J	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 130
Bromofluorobenzene	97		70 - 130
Toluene-d8 (Surr)	94		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **MW-29**

Lab Sample ID: 460-38989-5
Client Matrix: Water

Date Sampled: 04/11/2012 1105
Date Received: 04/12/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109391	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a75027.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/15/2012 1336			Final Weight/Volume:	5 mL
Prep Date:	04/15/2012 1336				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	U	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.080	U	0.080	1.0
Toluene	0.15	U	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		70 - 130
Bromofluorobenzene	96		70 - 130
Toluene-d8 (Surr)	96		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **MW-33**

Lab Sample ID: 460-38989-6
Client Matrix: Water

Date Sampled: 04/11/2012 1435
Date Received: 04/12/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109391	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a75028.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/15/2012 1356			Final Weight/Volume:	5 mL
Prep Date:	04/15/2012 1356				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	U	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.11	J	0.080	1.0
Toluene	0.15	U	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		70 - 130
Bromofluorobenzene	98		70 - 130
Toluene-d8 (Surr)	94		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **TW-01**

Lab Sample ID: 460-38989-7
Client Matrix: Water

Date Sampled: 04/11/2012 1630
Date Received: 04/12/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109391	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a75029.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/15/2012 1417			Final Weight/Volume:	5 mL
Prep Date:	04/15/2012 1417				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	U	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.11	J	0.080	1.0
Toluene	0.15	U	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		70 - 130
Bromofluorobenzene	101		70 - 130
Toluene-d8 (Surr)	95		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: TB

Lab Sample ID: 460-38989-8
Client Matrix: Water

Date Sampled: 03/21/2012 1200
Date Received: 04/12/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109391	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a75014.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/15/2012 0916			Final Weight/Volume:	5 mL
Prep Date:	04/15/2012 0916				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U H J	0.18	1.0
Acetone	2.7	U H	2.7	10
Trichloroethene	0.090	U H	0.090	1.0
Benzene	0.080	U H	0.080	1.0
Toluene	0.15	U H	0.15	1.0
Ethylbenzene	0.10	U H	0.10	1.0
Xylenes, Total	0.36	U H J	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
Bromofluorobenzene	99		70 - 130
Toluene-d8 (Surr)	95		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

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

Lab Sample ID: 460-38989-9
Client Matrix: Water

Date Sampled: 04/11/2012 1700
Date Received: 04/12/2012 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109391	Instrument ID:	VOAMS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	a75030.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/15/2012 1437			Final Weight/Volume:	5 mL
Prep Date:	04/15/2012 1437				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	U	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.080	U	0.080	1.0
Toluene	0.15	U	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		70 - 130
Bromofluorobenzene	98		70 - 130
Toluene-d8 (Surr)	93		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **MW-4S**

Lab Sample ID: 460-38989-1
Client Matrix: Water

Date Sampled: 04/11/2012 1115
Date Received: 04/12/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109919	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109481	Lab File ID:	x25386.d
Dilution:	1.0			Initial Weight/Volume:	990 mL
Analysis Date:	04/18/2012 1804			Final Weight/Volume:	2 mL
Prep Date:	04/16/2012 1034			Injection Volume:	1 uL

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

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	83		53 - 108
2-Fluorophenol	43		10 - 65
Nitrobenzene-d5	86		56 - 112
Phenol-d5	28		10 - 48
Terphenyl-d14	80		50 - 122
2,4,6-Tribromophenol	85		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **MW-35**

Lab Sample ID: 460-38989-2
Client Matrix: Water

Date Sampled: 04/11/2012 1305
Date Received: 04/12/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-110018	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109360	Lab File ID:	x25430.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/19/2012 1311			Final Weight/Volume:	2 mL
Prep Date:	04/14/2012 0737			Injection Volume:	1 uL

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

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	87		53 - 108
2-Fluorophenol	43		10 - 65
Nitrobenzene-d5	94		56 - 112
Phenol-d5	30		10 - 48
Terphenyl-d14	95		50 - 122
2,4,6-Tribromophenol	93		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **MW-32**

Lab Sample ID: 460-38989-3
Client Matrix: Water

Date Sampled: 04/11/2012 1500
Date Received: 04/12/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-110199	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109360	Lab File ID:	x25493.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/21/2012 1603			Final Weight/Volume:	2 mL
Prep Date:	04/14/2012 0737			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	1.8	U	1.8	5.0
n,n'-Dimethylaniline	1.1		0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	77		53 - 108
2-Fluorophenol	44		10 - 65
Nitrobenzene-d5	86		56 - 112
Phenol-d5	29		10 - 48
Terphenyl-d14	76		50 - 122
2,4,6-Tribromophenol	94		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: MW-28

Lab Sample ID: 460-38989-4
Client Matrix: Water

Date Sampled: 04/11/2012 1220
Date Received: 04/12/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-110199	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109360	Lab File ID:	x25494.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/21/2012 1628			Final Weight/Volume:	2 mL
Prep Date:	04/14/2012 0737			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	1.8	U	1.8	5.0
n,n'-Dimethylaniline	0.48	J	0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	79		53 - 108
2-Fluorophenol	37		10 - 65
Nitrobenzene-d5	85		56 - 112
Phenol-d5	29		10 - 48
Terphenyl-d14	83		50 - 122
2,4,6-Tribromophenol	98		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **MW-29**

Lab Sample ID: 460-38989-5
Client Matrix: Water

Date Sampled: 04/11/2012 1105
Date Received: 04/12/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-110199	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109360	Lab File ID:	x25495.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/21/2012 1653			Final Weight/Volume:	2 mL
Prep Date:	04/14/2012 0737			Injection Volume:	1 uL

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

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	86		53 - 108
2-Fluorophenol	43		10 - 65
Nitrobenzene-d5	93		56 - 112
Phenol-d5	29		10 - 48
Terphenyl-d14	87		50 - 122
2,4,6-Tribromophenol	101		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **MW-33**

Lab Sample ID: 460-38989-6
Client Matrix: Water

Date Sampled: 04/11/2012 1435
Date Received: 04/12/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-110199	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109360	Lab File ID:	x25496.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/21/2012 1718			Final Weight/Volume:	2 mL
Prep Date:	04/14/2012 0737			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	1.8	U	1.8	5.0
n,n'-Dimethylaniline	1.3		0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	85		53 - 108
2-Fluorophenol	46		10 - 65
Nitrobenzene-d5	94		56 - 112
Phenol-d5	32		10 - 48
Terphenyl-d14	88		50 - 122
2,4,6-Tribromophenol	105		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **TW-01**

Lab Sample ID: 460-38989-7
Client Matrix: Water

Date Sampled: 04/11/2012 1630
Date Received: 04/12/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-110199	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109360	Lab File ID:	x25497.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/21/2012 1742			Final Weight/Volume:	2 mL
Prep Date:	04/14/2012 0737			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aniline	1.8	U	1.8	5.0
n,n'-Dimethylaniline	1.7		0.21	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	89		53 - 108
2-Fluorophenol	33		10 - 65
Nitrobenzene-d5	99		56 - 112
Phenol-d5	19		10 - 48
Terphenyl-d14	91		50 - 122
2,4,6-Tribromophenol	110		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

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

Lab Sample ID: 460-38989-9
Client Matrix: Water

Date Sampled: 04/11/2012 1700
Date Received: 04/12/2012 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-110199	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109360	Lab File ID:	x25498.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/21/2012 1807			Final Weight/Volume:	2 mL
Prep Date:	04/14/2012 0737			Injection Volume:	1 uL

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

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	82		53 - 108
2-Fluorophenol	42		10 - 65
Nitrobenzene-d5	93		56 - 112
Phenol-d5	28		10 - 48
Terphenyl-d14	86		50 - 122
2,4,6-Tribromophenol	102		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **MW-35**

Lab Sample ID: 460-38989-2
Client Matrix: Water

Date Sampled: 04/11/2012 1305
Date Received: 04/12/2012 1000

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-109703	Instrument ID:	BNAGC7
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	04/17/2012 0144			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: 460-38989-1

Client Sample ID: **MW-32**

Lab Sample ID: 460-38989-3
Client Matrix: Water

Date Sampled: 04/11/2012 1500
Date Received: 04/12/2012 1000

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-109703	Instrument ID:	BNAGC7
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	04/17/2012 0151			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	76		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: **MW-28**

Lab Sample ID: 460-38989-4
Client Matrix: Water

Date Sampled: 04/11/2012 1220
Date Received: 04/12/2012 1000

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-109703	Instrument ID:	BNAGC7
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	04/17/2012 0158			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	90		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-38989-1

Client Sample ID: TW-01

Lab Sample ID: 460-38989-7
Client Matrix: Water

Date Sampled: 04/11/2012 1630
Date Received: 04/12/2012 1000

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-109703	Instrument ID:	BNAGC7
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	04/17/2012 0205			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	75		47 - 132

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Data Usability Summary Report

SYRACUSE, NEW YORK

Volatile, Semivolatile and Methanol Analyses

SDG #460-38936

Analyses Performed By:
TestAmerica Laboratories
Edison New Jersey

Report #16285R
Project: B0026003.0000.00010

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #460-38936 for samples collected in association with the McKesson Bear Street Site. Included with this assessment are the corrected sample results, sample compliance report, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
PZ-4D	460-38936-1	Water	4/10/2012		X	X			
PZ-4S	460-38936-2	Water	4/10/2012		X	X			
MW-17R	460-38936-3	Water	4/10/2012		X	X			X
MW-30	460-38936-4	Water	4/10/2012		X	X			
MW-23I	460-38936-5	Water	4/10/2012		X	X			X
MW-23S	460-38936-6	Water	4/10/2012		X	X			X
MW-18	460-38936-7	Water	4/10/2012		X	X			X
TB	460-38936-8	Water	3/26/2012		X				

Note:

1. Miscellaneous parameters include Methanol analysis by SW846 8015B.
2. Matrix spike/matrix spike duplicate analysis was performed on sample location MW-17R.

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 8260B, 8270C and 8015B as referenced in NYSDEC ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

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.

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°C±2°C; preserved to a pH of less than 2 s.u.

s.u. Standard units

The analyses that exceeded the holding are presented in the following table.

Sample Locations	Holding Time	Criteria
TB	Analysis Completed	17 days

Sample results associated with sample locations analyzed by analytical method SW-846 8260B were qualified, as specified in the table below. All other holding times were met.

Criteria	Qualification	
	Detected Analytes	Non-detect Analytes
Analysis completed less than two times holding time	J	UJ

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and 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.

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 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

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

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	Compound	Criteria
MW-17R PZ-4D PZ-4S MW-30 MW-23I MW-23S MW-18	CCV %D	Acetone	35.0%

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
	%RSD >90%	Non-detect	R
		Detect	J

Initial/Continuing	Criteria	Sample Result	Qualification
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J
	%D >90% (increase/decrease in sensitivity)	Non-detect	R
		Detect	J

† RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., 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 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 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 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 a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established 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.

The MS/MSD exhibited acceptable recoveries and RPD between recoveries.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

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

9. Field Duplicate Analysis

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 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 5 times the RL, a control limit of two times the RL is applied for water matrices.

A field duplicate analysis was not included with this data set.

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 blanks					X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)		X		X	
Matrix Spike Duplicate(MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)					X
Surrogate Spike Recoveries		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. Transcription/calculation errors present				X	

VOCs: SW-846 8260B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%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	Cooled @ 4°C ± 2

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and 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.

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 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

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

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.

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

Sample Locations	Surrogate	Recovery
MW-23I MW-18	Phenol-d5	> UL
	2-Fluorophenol	AC
	2,4,6-Tribromophenol	AC
	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	AC
	Terphenyl-d14	AC

UL Upper control limit
LL Lower control limit
D Diluted
AC Acceptable

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
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	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.

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 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 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 a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established 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.

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

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

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

9. Field Duplicate Analysis

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 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 5 times the RL, a control limit of two times the RL is applied for water matrices.

A field duplicate analysis was not included with this data set.

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 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 blanks					X
Laboratory Control Sample (LCS) %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 Duplicate (RPD)					X
Surrogate Spike Recoveries		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. Transcription/calculation errors present				X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

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

METHANOL 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 8015B	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and 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 reporting limit (RL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were 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

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

4.2 Continuing Calibration

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.

All surrogate recoveries were within control limits.

6. 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 a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established 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.

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

7. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

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

8. Field Duplicate Analysis

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 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

A field duplicate analysis was not included with this data set.

9. Compound Identification

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

All identified compounds 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 8015	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) %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/Lab Duplicate (RPD)					X
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
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 the established RT windows					X
C. Pattern identification					X
D. Transcription/calculation errors present					X
E. Reporting limits adjusted to reflect sample dilutions					X

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference

VALIDATION PERFORMED BY: Melissa Hall

SIGNATURE: Melissa Hall

DATE: May 22, 2012

PEER REVIEW: Dennis Capria

DATE: June 6, 2012

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliancy[1]					Non-compliance
					VOC	SVOC	PCB	MET	MISC	
460-38936	4/10/2012	SW-846	PZ-4D	Water	yes	yes	--	--	--	
	4/10/2012	SW-846	PZ-4S	Water	yes	yes	--	--	--	
	4/10/2012	SW-846	MW-17R	Water	yes	yes	--	--	yes	
	4/10/2012	SW-846	MW-30	Water	yes	yes	--	--	--	
	4/10/2012	SW-846	MW-23I	Water	yes	yes	--	--	yes	
	4/10/2012	SW-846	MW-23S	Water	yes	yes	--	--	yes	
	4/10/2012	SW-846	MW-18	Water	yes	yes	--	--	yes	
	3/26/2012	SW-846	TB	Water	no	--	--	--	--	VOC-Holding Time

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: LEILA TORRELL / KELLEY	Lab PM: Chang, Grace	Carrier Tracking No(s):	COC No: 460-25048-16231.2
Client Contact: ~~Accounts Payable~~ DAWN	Phone: 315-263-2167 ROE	E-Mail: grace.chang@testamericainc.com		Page: Page 2 of 3
Company: ~~ARCADIS U.S. Inc~~ ARCADIS				Job #:
Address: ~~630 Plaza Drive, Suite 600~~ 6723 TOWPATH RD	Due Date Requested:	Analysis Requested		
City: ~~Highlands Ranch~~ SYRACUSE NY	TAT Requested (days): STANDARD			
State, Zip: ~~CO, 80129~~ 13214	PO #: Purchase Order Requested			
Phone: 315-446-9120	WO #:			
Email: ~~accountspayable.administration@arcadis-us.com~~	Project #: 46003506			
Project Name: McKesson Former Bear Street Facility	SSOW#:			
Site: BEAR ST				

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - ph 4-5; Z - other (specify)
Other:

460-38936

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	8260B - (MOD) 8260-Special Compound List	8270C - (MOD) 8270-Special Compound List	8015B_DAI - (MOD) 8015B-Methanol	Total Number of containers	Special Instructions/Note:
			Preservation Code:			A	N	N		
~~PZ-04D~~ PZ-4D	4-10-12	1045	G	Water		A	N		5	-1
PZ-4S		1215		Water		A	N		3	-2
MW-17R (MS/MSD)		1410		Water	X	A	N	N	5	-3
MW-30		1625		Water		A	N		3	-4
MW-23I		1410		Water		A	N	N	5	-5
MW-23S		1200		Water		A	N	N	5	-6
MW-18		1610		Water		A	N	N	5	-7
TB	3/26/12	1200		Water		A			2	-8
				Water						
				Water						
				Water						

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

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

Deliverable Requested: I, II, III, IV, Other (specify) Per Project Contract

Special Instructions/QC Requirements: 3.6°C IR#50

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by:	4/10/12, 18:20		Received by:	04-10-12, 18:20	SYR
Relinquished by:	04-10-12, 19:30	SYR	Received by:	Date/Time:	Company
Relinquished by: FEDEX	4/11/12 930	Company	Received by:	4/11/12 930	TA Edison

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 467991 / 467998 / 467992

Cooler Temperature(s) °C and Other Remarks: 4.3 / 4.0 / 3.6°C IR#50

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

Client Sample ID: **PZ-4D**

Lab Sample ID: 460-38936-1
Client Matrix: Water

Date Sampled: 04/10/2012 1045
Date Received: 04/11/2012 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109129	Instrument ID:	VOAMS3
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	c67512.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/12/2012 1912			Final Weight/Volume:	5 mL
Prep Date:	04/12/2012 1912				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	U	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.080	U	0.080	1.0
Toluene	0.23	J	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 130
Bromofluorobenzene	98		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

Client Sample ID: PZ-4S

Lab Sample ID: 460-38936-2
Client Matrix: Water

Date Sampled: 04/10/2012 1215
Date Received: 04/11/2012 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109129	Instrument ID:	VOAMS3
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	c67513.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/12/2012 1937			Final Weight/Volume:	5 mL
Prep Date:	04/12/2012 1937				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	U	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.080	U	0.080	1.0
Toluene	0.15	U	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		70 - 130
Bromofluorobenzene	98		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

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

Lab Sample ID: 460-38936-3
Client Matrix: Water

Date Sampled: 04/10/2012 1410
Date Received: 04/11/2012 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109129	Instrument ID:	VOAMS3
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	c67503.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/12/2012 1500			Final Weight/Volume:	5 mL
Prep Date:	04/12/2012 1500				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	U	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.22	J	0.080	1.0
Toluene	0.15	U	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		70 - 130
Bromofluorobenzene	96		70 - 130
Toluene-d8 (Surr)	97		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

Client Sample ID: **MW-30**

Lab Sample ID: 460-38936-4
Client Matrix: Water

Date Sampled: 04/10/2012 1625
Date Received: 04/11/2012 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109129	Instrument ID:	VOAMS3
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	c67514.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/12/2012 2002			Final Weight/Volume:	5 mL
Prep Date:	04/12/2012 2002				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	U	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.080	U	0.080	1.0
Toluene	0.15	U	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		70 - 130
Bromofluorobenzene	98		70 - 130
Toluene-d8 (Surr)	100		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

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

Lab Sample ID: 460-38936-5
Client Matrix: Water

Date Sampled: 04/10/2012 1410
Date Received: 04/11/2012 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109129	Instrument ID:	VOAMS3
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	c67515.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/12/2012 2027			Final Weight/Volume:	5 mL
Prep Date:	04/12/2012 2027				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	U	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.080	U	0.080	1.0
Toluene	0.15	U	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		70 - 130
Bromofluorobenzene	97		70 - 130
Toluene-d8 (Surr)	97		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

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

Lab Sample ID: 460-38936-6
Client Matrix: Water

Date Sampled: 04/10/2012 1200
Date Received: 04/11/2012 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109129	Instrument ID:	VOAMS3
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	c67516.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/12/2012 2052			Final Weight/Volume:	5 mL
Prep Date:	04/12/2012 2052				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	U	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.080	U	0.080	1.0
Toluene	0.15	U	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		70 - 130
Bromofluorobenzene	96		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

Client Sample ID: **MW-18**

Lab Sample ID: 460-38936-7
Client Matrix: Water

Date Sampled: 04/10/2012 1610
Date Received: 04/11/2012 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109129	Instrument ID:	VOAMS3
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	c67517.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/12/2012 2117			Final Weight/Volume:	5 mL
Prep Date:	04/12/2012 2117				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U	0.18	1.0
Acetone	2.7	U	2.7	10
Trichloroethene	0.090	U	0.090	1.0
Benzene	0.080	U	0.080	1.0
Toluene	0.27	J	0.15	1.0
Ethylbenzene	0.10	U	0.10	1.0
Xylenes, Total	0.36	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		70 - 130
Bromofluorobenzene	98		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

Client Sample ID: TB

Lab Sample ID: 460-38936-8
Client Matrix: Water

Date Sampled: 03/26/2012 1200
Date Received: 04/11/2012 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-109129	Instrument ID:	VOAMS3
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	c67499.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/12/2012 1319			Final Weight/Volume:	5 mL
Prep Date:	04/12/2012 1319				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methylene Chloride	0.18	U H J	0.18	1.0
Acetone	2.7	U H	2.7	10
Trichloroethene	0.090	U H	0.090	1.0
Benzene	0.080	U H	0.080	1.0
Toluene	0.15	U H	0.15	1.0
Ethylbenzene	0.10	U H	0.10	1.0
Xylenes, Total	0.36	U H	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 130
Bromofluorobenzene	99		70 - 130
Toluene-d8 (Surr)	97		70 - 130

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

Client Sample ID: **PZ-4D**

Lab Sample ID: 460-38936-1
Client Matrix: Water

Date Sampled: 04/10/2012 1045
Date Received: 04/11/2012 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109513	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109115	Lab File ID:	x25219.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/15/2012 0201			Final Weight/Volume:	2 mL
Prep Date:	04/12/2012 1132			Injection Volume:	1 uL

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

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	81		53 - 108
2-Fluorophenol	41		10 - 65
Nitrobenzene-d5	86		56 - 112
Phenol-d5	29		10 - 48
Terphenyl-d14	85		50 - 122
2,4,6-Tribromophenol	107		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

Client Sample ID: **PZ-4S**

Lab Sample ID: 460-38936-2
Client Matrix: Water

Date Sampled: 04/10/2012 1215
Date Received: 04/11/2012 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109513	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109115	Lab File ID:	x25220.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/15/2012 0226			Final Weight/Volume:	2 mL
Prep Date:	04/12/2012 1132			Injection Volume:	1 uL

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

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	83		53 - 108
2-Fluorophenol	44		10 - 65
Nitrobenzene-d5	87		56 - 112
Phenol-d5	30		10 - 48
Terphenyl-d14	83		50 - 122
2,4,6-Tribromophenol	94		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

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

Lab Sample ID: 460-38936-3
Client Matrix: Water

Date Sampled: 04/10/2012 1410
Date Received: 04/11/2012 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109513	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109115	Lab File ID:	x25221.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/15/2012 0250			Final Weight/Volume:	2 mL
Prep Date:	04/12/2012 1132			Injection Volume:	1 uL

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

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	85		53 - 108
2-Fluorophenol	43		10 - 65
Nitrobenzene-d5	90		56 - 112
Phenol-d5	28		10 - 48
Terphenyl-d14	91		50 - 122
2,4,6-Tribromophenol	107		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

Client Sample ID: **MW-30**

Lab Sample ID: 460-38936-4
Client Matrix: Water

Date Sampled: 04/10/2012 1625
Date Received: 04/11/2012 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109513	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109115	Lab File ID:	x25224.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/15/2012 0403			Final Weight/Volume:	2 mL
Prep Date:	04/12/2012 1132			Injection Volume:	1 uL

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

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	77		53 - 108
2-Fluorophenol	40		10 - 65
Nitrobenzene-d5	80		56 - 112
Phenol-d5	28		10 - 48
Terphenyl-d14	87		50 - 122
2,4,6-Tribromophenol	104		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

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

Lab Sample ID: 460-38936-5
Client Matrix: Water

Date Sampled: 04/10/2012 1410
Date Received: 04/11/2012 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109513	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109115	Lab File ID:	x25225.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/15/2012 0428			Final Weight/Volume:	2 mL
Prep Date:	04/12/2012 1132			Injection Volume:	1 uL

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

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	90		53 - 108
2-Fluorophenol	59		10 - 65
Nitrobenzene-d5	95		56 - 112
Phenol-d5	49	X	10 - 48
Terphenyl-d14	97		50 - 122
2,4,6-Tribromophenol	121		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

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

Lab Sample ID: 460-38936-6
Client Matrix: Water

Date Sampled: 04/10/2012 1200
Date Received: 04/11/2012 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109513	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109115	Lab File ID:	x25226.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/15/2012 0452			Final Weight/Volume:	2 mL
Prep Date:	04/12/2012 1132			Injection Volume:	1 uL

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

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	79		53 - 108
2-Fluorophenol	39		10 - 65
Nitrobenzene-d5	81		56 - 112
Phenol-d5	27		10 - 48
Terphenyl-d14	81		50 - 122
2,4,6-Tribromophenol	97		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

Client Sample ID: **MW-18**

Lab Sample ID: 460-38936-7
Client Matrix: Water

Date Sampled: 04/10/2012 1610
Date Received: 04/11/2012 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-109513	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-109115	Lab File ID:	x25227.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/15/2012 0517			Final Weight/Volume:	2 mL
Prep Date:	04/12/2012 1132			Injection Volume:	1 uL

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

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	77		53 - 108
2-Fluorophenol	63		10 - 65
Nitrobenzene-d5	80		56 - 112
Phenol-d5	61	X	10 - 48
Terphenyl-d14	80		50 - 122
2,4,6-Tribromophenol	98		46 - 122

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

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

Lab Sample ID: 460-38936-3
Client Matrix: Water

Date Sampled: 04/10/2012 1410
Date Received: 04/11/2012 0930

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-109578	Instrument ID:	BNAGC7
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	04/15/2012 1906			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	91		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

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

Lab Sample ID: 460-38936-5
Client Matrix: Water

Date Sampled: 04/10/2012 1410
Date Received: 04/11/2012 0930

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-109578	Instrument ID:	BNAGC7
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	04/15/2012 1913			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	74		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

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

Lab Sample ID: 460-38936-6
Client Matrix: Water

Date Sampled: 04/10/2012 1200
Date Received: 04/11/2012 0930

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-109578	Instrument ID:	BNAGC7
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	04/15/2012 1920			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	89		47 - 132

Client: ARCADIS U.S. Inc

Job Number: 460-38936-1

Client Sample ID: **MW-18**

Lab Sample ID: 460-38936-7
Client Matrix: Water

Date Sampled: 04/10/2012 1610
Date Received: 04/11/2012 0930

8015B Nonhalogenated Organic Compounds - Direct Injection (GC)

Analysis Method:	8015B	Analysis Batch:	460-109578	Instrument ID:	BNAGC7
	N/A		N/A	Initial Weight/Volume:	1 uL
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	04/15/2012 1927			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	66		47 - 132

ARCADIS

Attachment C

IC/EC Certification Form

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 734020

Site Name McKesson Envirosystems (Inland Site)

Site Address: 400 Bear Street West Zip Code: 13204
City/Town: Syracuse
County: Onondaga
Site Acreage: 8.6

Reporting Period: to July 30, 2012

	YES	NO
1. Is the information above correct?	☒	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☐	☒

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative — Date: 10/20/12

JEAN A. MESCHER

SITE NO. 734020

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
029-300-380	MCKESSON CORP	Ground Water Use Restriction Monitoring Plan O&M Plan Site Management Plan Soil Management Plan
029-300-390	MCKESSON,CORP	Ground Water Use Restriction Monitoring Plan O&M Plan Site Management Plan Soil Management Plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
029-300-380	Fencing/Access Control Groundwater Containment
029-300-390	Fencing/Access Control Groundwater Containment

Engineering Control Details for Site No. 734020

Engineering Control Details for Site No. 734020

Parcel: 029-300-380

Decision Document-OU-1 ROD was signed March 18, 1994.
As referenced in the ROD Soil Management Plan-needs to be in place due to the 12 inches of clean soil graded onsite.

Site Management Plan Needs to contain a Long Term Monitoring Plan to define the Ground water samples required, Laboratory analysis required, and the Period at which the sampling events occur; O and M Plan to define Operations and Maintenance Required onsite throughout the year; IC/EC Plan to list IC and EC onsite and method for checking protectiveness.

Ground Water Containment-is maintained through collection trenches
Fencing/Access control-A perimeter fence is onsite to restrict access

Decision Document-OU-1 ROD was signed March 18, 1994.
As referenced in the ROD Soil Management Plan-needs to be in place due to the 12 inches of clean soil graded onsite.

Groundwater use restriction is called out in the ROD OU-1.

Site Management Plan Needs to contain a Long Term Monitoring Plan to define the groundwater samples required, Laboratory analysis required, and the Period at which the sampling events occur; O and M Plan to define Operations and Maintenance Required onsite throughout the year; IC/EC Plan to list IC and EC onsite and method for checking protectiveness.

Ground Water Containment-is maintained through collection trenches
Fencing/Access control-A perimeter fence is onsite to restrict access

Decision Document-OU-2 ROD was signed March 19, 1997.
As referenced in the ROD Soil Management Plan-needs to be in place due to the 12 inches of clean soil graded onsite.

Groundwater use restriction is called out in the ROD OU-1.

Site Management Plan Needs to contain a Long Term Monitoring Plan to define the Ground water samples required, Laboratory analysis required, and the Period at which the sampling events occur; O and M Plan to define Operations and Maintenance Required onsite throughout the year; IC/EC Plan to list IC and EC onsite and method for checking protectiveness.

Ground Water Containment-is maintained through collection trenches
Fencing/Access control-A perimeter fence is onsite to restrict access

Engineering Control Details for Site No. 734020

Parcel: 029-300-390

Decision Document-OU-1 ROD was signed March 18, 1994.
As referenced in the ROD Soil Management Plan-needs to be in place due to the 12 inches of clean soil graded onsite.

Groundwater use restriction is called out in the ROD OU-1.

Site Management Plan Needs to contain a Long Term Monitoring Plan to define the Ground water samples required, Laboratory analysis required, and the Period at which the sampling events occur; O and M Plan to define Operations and Maintenance Required onsite throughout the year; IC/EC Plan to list IC and EC onsite and method for checking protectiveness.

Ground Water Containment-is maintained through collection trenches
Fencing/Access control-A perimeter fence is onsite to restrict access

Decision Document-OU-1 ROD was signed March 18, 1994.
As referenced in the ROD Soil Management Plan-needs to be in place due to the 12 inches of clean soil graded onsite.

Groundwater use restriction is called out in the ROD OU-1.

Site Management Plan Needs to contain a Long Term Monitoring Plan to define the Ground water samples required, Laboratory analysis required, and the Period at which the sampling events occur; O and M Plan to define Operations and Maintenance Required onsite throughout the year; IC/EC Plan to list IC and EC onsite and method for checking protectiveness.

Ground Water Containment-is maintained through collection trenches
Fencing/Access control-A perimeter fence is onsite to restrict access
Decision Document-OU-1 ROD was signed March 18, 1994.
As referenced in the ROD Soil Management Plan-needs to be in place due to the 12 inches of clean soil graded onsite.

Site Management Plan Needs to contain a Long Term Monitoring Plan to define the Ground water samples required, Laboratory analysis required, and the Period at which the sampling events occur; O and M Plan to define Operations and Maintenance Required onsite throughout the year; IC/EC Plan to list IC and EC onsite and method for checking protectiveness.

Ground Water Containment-is maintained through collection trenches
Fencing/Access control-A perimeter fence is onsite to restrict access

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☐	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☐	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 734020

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I _____ at _____,
print name print business address

am certifying as _____(Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

_____ _____
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I _____ at _____,
print name print business address

am certifying as a Professional Engineer for the _____
(Owner or Remedial Party)

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date

Corrective Measures Work Plan
McKesson Envirosystems – Bear Street Site
Syracuse, New York
Site No. 07-34-020

As per the March 1994 Record of Decision of Operable Unit #1 of the McKesson Envirosystems – Bear Street Site, deed restrictions for the two parcels of the site need to be placed to prevent future use of and potential human exposure to site groundwater. The deed restrictions will serve as an institutional control. 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. As of October 2012, the deed restriction is not in place.

A draft deed restriction (Declaration of Covenants and Restrictions) was provided by NYSDEC in August 2011. The deed restriction language needs to be discussed with the NYSDEC. The Periodic Review Report for July through December 2012 (scheduled to be submitted to NYSDEC in mid-January 2013) will contain modified deed restriction language for NYSDEC's consideration. Upon approval of the language, the site Respondents will complete the deed restriction process as outlined in Section V.2.a.b.7 of DEC-33 (Institutional Controls: A Guide to Drafting and Recording Institutional Controls).