

Transmitted Via Overnight Delivery

November 16, 2004

Mr. Mark Mateunas Bureau of Hazardous Site Control New York State Department of Environmental Conservation 625 Broadway, 12th Floor Albany, NY 12233-7012



Re: McKesson Envirosystems Bear Street Site Syracuse, New York Site No. 07-34-020 BBL Project #: 0260.26003 #10

Dear Mr. Mateunas:

This *Biannual Process Control Monitoring Report* (Biannual Report) for the McKesson Envirosystems, Bear Street Site (the site), located at 400 Bear Street in Syracuse, New York has been prepared by Blasland, Bouck & Lee, Inc. (BBL), on behalf of McKesson Corporation (McKesson), to present a description of the operation and maintenance (O&M) activities conducted and the monitoring results obtained during the period from January 2004 through June 2004. Additionally, this report also presents a detailed description of the supplemental remedial activities conducted between August 2 and August 12, 2004. This report has been prepared in accordance with the requirements of the New York State Department of Environmental Conservation- (NYSDEC-) approved *Site Operation and Maintenance Plan* (BBL, Revised August 1999) and a December 29, 1999 letter from David J. Ulm of BBL to Michael J. Ryan, P.E. of the NYSDEC, presenting the long-term process control monitoring program as an addendum to the Site O&M Plan. The Site O&M Plan and the addendum are collectively referred to herein as the O&M Plan.

The site is divided into two operable units: Operable Unit No. 1 (OU No. 1) - Unsaturated Soil and Operable Unit No. 2 (OU No. 2) - Saturated Soils and Groundwater. As a part of the NYSDEC-selected remedy for both of these operable units, there has been and continues to be ongoing O&M activities. Since completing the OU No. 1 remedial activities in 1994/1995 and commencing the OU No. 2 in-situ anaerobic bioremediation treatment activities in July 1998, the details regarding the O&M activities and the results of the process control monitoring program have been provided to the NYSDEC in biannual reports. A site description and history, along with a description of the remedial actions completed and the ongoing O&M activities being conducted were detailed in the previous biannual reports, including BBL's August 2001 Biannual Report covering the period from July 2000 through December 2000. That information has not changed and is not repeated herein.

During this reporting period (January 2004 through June 2004), no substantial system repairs were required and no unusual observations were made regarding system operations. The Area 3 in-situ anaerobic bioremediation treatment system has operated satisfactorily during this reporting period without interruption and approximately 784,000 gallons of water were pumped from the withdrawal trench and introduced into the Area 3 infiltration trenches as detailed herein.

The NYSDEC was notified of the June 2004 process control monitoring event (including hydraulic, biological, and chemicals of concern [COC] monitoring) prior to the commencement of the monitoring activities. The details and schedule of the supplemental remedial activities were also coordinated with the NYSDEC prior to initiating these activities.

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

- <u>I. RAMM and Suga-Lik[™] Introduction Activities</u> A description of the Revised Anaerobic Mineral Media (RAMM) and Suga-Lik[™] (Blackstrap Molasses) introduction activities.
- **<u>II. Hydraulic Process Control Monitoring</u>** A description of the results of the hydraulic control monitoring activities conducted between January 2004 and June 2004.
- <u>III. Biological Process Control Monitoring</u> A description of the June 2004 results of the biological process control monitoring and a comprehensive summary of the biological indicator (phospholipids fatty acids [PLFA] and poly-b-hydroxy alkanoate [PHA]) results obtained since commencement of the in-situ anaerobic bioremediation treatment activities in 1998.
- <u>IV. COC Process Control and Biannual Groundwater Monitoring Program</u> A description of the June 2004 results of the COC process control and biannual groundwater monitoring program, and a summary of the COC data obtained at the site from 1989 through June 2004.
- <u>V. Supplemental Remedial Activities</u> A summary of the supplemental remedial activities conducted at the site between August 2 and August 12, 2004.
- <u>VI. Conclusions</u> Conclusions based on the results of the process control monitoring activities and supplemental remedial activities.
- <u>VII. Recommendations</u> Recommendations for the in-situ anaerobic bioremediation treatment program and monitoring activities.

I. RAMM and Suga-LikTM Introduction Activities

Based on the results of the process control monitoring activities, the continued addition of RAMM into each of the three areas and the continued addition of Suga-LikTM (with the RAMM) in Area 1 and downgradient of Area 2 were recommended in the June 2004 *Biannual Process Control Monitoring Report* to further stimulate the anaerobic biodegradation of the relatively low concentrations of COCs at these locations. As detailed in that Biannual Report, the relatively low COC concentrations detected at these locations may not provide a source of carbon sufficient to sustain microbial activity. To further stimulate growth of indigenous bacteria, the RAMM and Suga-LikTM introduction activities listed below have been conducted.

- Continuing to introduce approximately 100 gallons of RAMM-amended groundwater into each of the three areas on a monthly basis.
- Continuing to add Suga-Lik[™] with RAMM into the two Area 1 infiltration trenches on a monthly basis by manually filling each of the standpipes located in these trenches. Suga-Lik[™] has been added during these monthly RAMM introduction activities to provide an easily metabolized carbon source to further stimulate the growth of the indigenous bacteria. Suga-Lik[™] provides electron donors, while RAMM provides nutrients and electron acceptors.

- Continuing to introduce RAMM and Suga-Lik[™] on a monthly basis into piezometers PZ-G, PZ-Q, PZ-R, and PZ-S located within and downgradient of Area 1. RAMM and Suga-Lik[™] have been introduced into the shallow hydrogeologic unit within and downgradient of Area 1 using these piezometers to provide a better distribution of a readily degradable carbon source that otherwise may not reach these areas if distributed through the infiltration trenches only.
- Continuing to introduce RAMM and Suga-Lik[™] on a monthly basis into piezometer PZ-W located downgradient of Area 2, near monitoring well MW-36.

Approximately 10 gallons of the RAMM/Suga-Lik[™] solution has been introduced into each of the aforementioned piezometers and approximately 100 gallons of Suga-Lik[™] and/or RAMM solution into each of the three areas on a monthly basis. The amount of Suga-Lik[™] added to the RAMM has been proportional to the levels of COCs detected, at the dilution ratio of 1,000:1.

II. Hydraulic Process Control Monitoring

As part of the hydraulic process control monitoring activities conducted during January 2004 through June 2004, groundwater-level measurements were obtained at existing 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. Groundwater-level measurements were also obtained from selected monitoring wells (MW-6D located upgradient of Area 3 and MW-8D located within Area 3) screened entirely within the deep hydrogeologic unit. Additionally, a groundwater-level measurement was obtained from a staff gauge located in the Barge Canal adjacent to the site. The hydraulic process control monitoring activities were conducted on June 14, 2004. The monitoring locations are shown on Figure 1.

Table 1 summarizes the groundwater-level measurements obtained during the June 2004 hydraulic monitoring events, as well as those obtained since June 1998 (immediately prior to commencing the in-situ anaerobic remedial activities). Figure 2 depicts the potentiometric surface of the site's shallow hydrogeologic unit using the June 14, 2004 data set, which is consistent with previous hydraulic monitoring events. The results and corresponding conclusions of the hydraulic process control monitoring are also summarized below.

- A closed-loop hydraulic cell continues to be maintained in Area 3, as shown on Figure 2.
- The groundwater withdrawal rate in Area 3 ranged from approximately 0.7 gallons per minute (gpm) to 5.1 gpm. These rates continue to induce a higher hydraulic gradient across the area of relatively higher concentrations of COCs within Area 3 (relative to baseline conditions), while maintaining hydraulic containment in Area 3.
- In Area 3, approximately 75% of the recovered groundwater continues to be introduced to the secondary infiltration trench "B" and the remaining 25% continues to be introduced to the secondary infiltration trench "A." This introduction of recovered groundwater into the secondary infiltration trenches increases the rate at which RAMM-amended groundwater moves through the area of relatively higher concentrations of COCs (between the secondary infiltration trenches). The withdrawal of groundwater continues to induce a hydraulic gradient in Area 3 from perimeter monitoring wells MW-23S, MW-25S, and MW-17R toward the withdrawal trench.
- No discernable, long-term hydraulic effects were identified at or near Areas 1 and 2 as a result of introducing RAMM or RAMM/Suga-Lik[™] into these areas on a monthly basis.

- The groundwater elevations measured at selected monitoring locations screened entirely within the deep hydrogeologic unit indicate that the operation of the Area 3 system is continuing to have no discernable effect on the hydraulic gradient of this unit.
- The weekly conductivity measurements of groundwater pumped from the withdrawal trench in Area 3 ranged from approximately 1 millisiemens per centimeter (mS/cm) to 2.14 mS/cm, which is within the range of the conductivity levels measured prior to system operation (1 mS/cm 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 the operation of the Area 3 treatment system has not caused the freshwater/saltwater interface to upcone to the base of the withdrawal trench.

III. Biological Process Control Monitoring

The biological process control monitoring includes collecting groundwater samples for laboratory analysis of PLFA and PHA, common biological indicators in both oxidized and reduced states (e.g., electron acceptors: nitrate, manganese, iron, sulfate, and carbon dioxide), and permanent gases (nitrogen, carbon dioxide, and methane). The monitoring locations are shown on Figure 1. In addition, the following groundwater quality parameters were also measured in the field during the June 2004 biological sampling event: pH, temperature, conductivity, dissolved oxygen (DO), and oxidation/reduction potential (ORP). To better evaluate the availability of macronutrients necessary for biological growth, groundwater samples collected from monitoring locations within the three areas, and from perimeter monitoring wells MW-29 and MW-30 (downgradient of Area 3) and MW-33 and MW-36 (downgradient of Areas 1 and 2, respectively) were analyzed for ammonia, potassium, and ortho-phosphate.

The results of the June 2004 biological process control monitoring activities are presented in Table 2 and shown on Figures 3 through 11. These biological process control monitoring results are summarized below.

- In general, the biomass (PFLA) levels increased or remained the same in most monitoring locations in Areas 1, 2, and 3 since the May 2003 sampling event, except at MW-31 in Area 1 where the PLFA level decreased (see Figure 3 [Area 1], Figure 6 [Area 2], and Figure 9 [Area 3]). The PLFA level decreased from 19 picomoles/milliliter (pmol/ml) (October 2003) to 1 pmol/ml (June 2004) at monitoring location MW-31. As discussed in Section IV, COCs were generally not detected in the June 2004 groundwater samples (see Figure 12) collected at monitoring location MW-31 where the PLFA level decreased.
- The highest biomass (PLFA) levels continue to be at monitoring locations TW-02R (Area 2) and MW-8S (Area 3), where the relatively higher concentrations of COCs have been detected (see Figures 6 and 9).
- In general, the levels of anaerobic bacteria in each of the three Areas have increased or remained the same since the previous sampling event.
- The PLFA data used to monitor environmental stress and turnover rate indicate that the microbial communities within Areas 1, 2, and 3 are undergoing limited stress and continue to have high turnover rates.
- PHA was not detected in any of the June 2004 groundwater samples collected from Areas 1, 2, and 3 suggesting there are sufficient carbon, electron acceptors, and nutrients to sustain microbial activity within these three areas.

- Consistent with the activities conducted during the previous biannual sampling event (October 2003), the groundwater samples were analyzed for ammonia, potassium, and ortho-phosphate to better evaluate the availability of macronutrients necessary for biological growth in each of the three Areas (see Table 2). The results of these additional analyses and the PHA/PLFA data indicate that there are sufficient amounts of macronutrients available within each Area to sustain microbial growth.
- Dissolved gases results, together with ORP data, continue to indicate that conditions in the saturated soils/groundwater of the shallow hydrogeologic unit within each area are reduced, thus conducive to anaerobic bioremediation processes.
- The biological data (i.e., microbial analytes, indicator compounds, and permanent gases) obtained since commencement of the in-situ anaerobic treatment program in 1998 indicate that the saturated soil/groundwater conditions within the shallow hydrogeologic unit within each area are consistently conducive to microbial degradation of the COCs by anaerobic microbial populations. Additionally, these data have consistently confirmed that there are sufficient carbon, election acceptors, and nutrients to sustain microbial activity with each of the three areas.
- Common biological indicators were measured in groundwater samples collected from the four "sentinel" monitoring wells (MW-29, MW-30, MW-33, and MW-36) (see Table 2 and Figure 1). These results are consistent with previous sampling events and indicate no appreciable increase in RAMM constituents downgradient of each area.

IV. COC Process Control and Biannual Groundwater Monitoring Program

The COC process control and biannual groundwater monitoring activities were conducted on June 14, 2004 through June 18, 2004, in accordance with the long-term COC process control monitoring program presented in the O&M Plan. The existing monitoring wells and piezometers that were used to conduct the long-term process control monitoring program and a schedule for implementing this program were provided in the previous biannual progress report. The monitoring locations are shown on Figure 1.

In accordance with the requirements of the NYSDEC-approved monitoring program, laboratory analytical results for the June 2004 samples were validated. A summary of the validated COC groundwater analytical results is presented in Table 3 and shown on Figures 12 and 13. Copies of the validated analytical laboratory reports associated with the June 2004 sampling event are provided under separate cover. A summary of the COC analytical results is provided below for each of the three areas, and the downgradient perimeter monitoring locations. The presence or absence of non-aqueous phase liquid (NAPL) was also assessed in existing monitoring wells and piezometers 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, except at MW-8S where approximately 0.01 foot of LNAPL was measured. Supplemental remedial activities were conducted in the area of MW-8S, as discussed in Section V.

<u>Area 1</u>

• As shown on Figure 12, the concentrations of most COCs detected in the groundwater samples collected from the monitoring locations within Area 1 during the June 2004 sampling event declined or remained relatively the same during implementation of the in-situ anaerobic bioremediation treatment program. Overall, the COC concentrations detected in groundwater samples collected from monitoring wells within Area 1 were generally low.

- The highest COC concentrations within Area 1 historically have been detected in groundwater samples collected from MW-32 and TW-01. The COC concentrations in the June 2004 groundwater samples collected from these wells ranged between not detected to just slightly above their respective groundwater standards. These data demonstrate a significant decrease in COC concentrations since commencement of the in-situ anaerobic bioremediation treatment program. For example, the aniline concentration detected at MW-32 was 6,300 ppb in September 1998, but aniline has not been detected above the NYSDEC Groundwater Quality Standard at this location since May 2003. Similarly, the aniline concentration detected at TW-01 in February 1999 was 9,000 ppb, but aniline has not been detected above the NYSDEC Groundwater Quality Standard of 5 ppb since October 2002 and the highest concentration detected since September 2000 was 15 ppb.
- In the groundwater sample collected from monitoring well MW-31 (approximately in the center of Area 1) during the June 2004 sampling event, COC concentrations ranged between not detected to an estimated 15 ppb (acetone). The acetone concentration decreased from 1,200 ppb in October 2003 to below the NYSDEC Groundwater Quality Standard in June 2004. The June 2004 acetone concentration is consistent with the concentrations detected in groundwater samples collected from MW-31 prior to October 2003 (see Figure 12). As noted in previous biannual reports, acetone is a common laboratory contaminant.
- The June 2004 COCs analytical data obtained for the monitoring well located immediately downgradient of Area 1 (MW-33) are relatively consistent with previous data collected since March 2001, including the aniline concentration of 2,700 ppb (Figure 12). Due to the aniline concentrations detected at MW-33, supplemental remedial activities were conducted in this area, as further discussed in Section V.

<u>Area 2</u>

- As shown on Figure 12, most COC concentrations detected within Area 2 during the June 2004 sampling event have decreased or remained relatively the same during implementation of the in-situ anaerobic bioremediation treatment program. The COC concentrations detected in groundwater samples collected from monitoring wells within Area 2 were generally low, with the exception of TW-02R. Monitoring well TW-02R is located within Area 2 at a location identified as containing relatively higher concentrations of COCs (see Figure 12) and has typically exhibited the higher concentrations in Area 2 of N,N-dimethylaniline, methylene chloride, and aniline. The N,N-dimethylaniline and methylene chloride concentrations have significantly decreased since 1998: from 61,000 ppb and 86,000 ppb (September 1998), respectively, to not detected and an estimated 4 ppb (June 2004), respectively. The aniline concentrations detected at TW-02R, however, have remained relatively consistent since commencement of the in-situ anaerobic bioremediation treatment activities, including the 82,000 ppb concentration of aniline detected during June 2004. As further discussed in Section V, supplemental remedial activities were conducted at the TW-02R location due to these aniline detections.
- In the groundwater sample collected from monitoring well MW-36 (located downgradient of Area 2) during the June 2004 sampling event, only aniline and N,N-dimethylaniline were detected at concentrations greater than their respective NYSDEC Groundwater Quality Standard. Aniline and N,N-dimethylaniline were detected in June 2004 at concentrations of 33 ppb and 7 ppb, respectively, which are consistent with previous concentrations detected at MW-36 and are just slightly greater than the respective NYSDEC Groundwater Quality Standard. The acetone concentration decreased from 580 ppb in October 2003 to below the NYSDEC Groundwater Quality Standard in June 2004 (22 ppb). As previously mentioned, acetone is a common laboratory contaminant.

Area 3

- As presented on Figure 13, the concentrations of most COCs that were previously detected at Area 3 monitoring locations above their respective NYSDEC Groundwater Quality Standards have decreased or remained relatively the same during the implementation of the in-situ anaerobic bioremediation treatment program.
- At monitoring well MW-8S, located in the center of Area 3 and within the area that has been identified as containing relatively higher concentrations of COCs (see Figure 13), the concentrations of COCs detected in June 2004 are relatively consistent with those detected since commencement of the in-situ bioremediation treatment activities in 1998, with the exception of aniline. Since commencing the treatment activities, the concentrations of aniline have generally increased: 1,200 ppb aniline was detected in September 1998 compared to 56,000 ppb in June 2004. Prior to starting the in-situ anaerobic treatment activities, much greater COC concentrations were detected at this location, including 7,700,000 ppb of methylene chloride in August 1995 compared to 1,200,000 ppb detected in June 2004. As further discussed in Section V, supplemental remedial activities were conducted at the MW-8S location due to the aniline and methylene chloride concentrations.
- At monitoring well MW-28, also located within Area 3 and the area of relatively higher concentrations of COCs, the methylene chloride concentrations detected in groundwater samples have decreased from 64,000 ppb (September 1998) to generally non-detect. Methylene chloride has only been detected once at MW-28 since October 2002 (May 2003 groundwater sample, 52 ppb methylene chloride). Since commencement of the in-situ anaerobic bioremediation treatment program in 1998, aniline concentrations have remained relatively consistent, including the aniline concentration of 910 ppb detected in June 2004. The other COCs have generally been not detected in groundwater samples collected at this location or detected at concentrations just slightly greater than their respective NYSDEC Groundwater Quality Standard. Based on these aniline detections, supplemental remedial activities were conducted at this location, as discussed in Section V.
- The aniline concentration detected in the groundwater sample collected from monitoring well MW-27 in June 2004 is the same as that detected in October 2003 (3,700 ppb). The other COCs detected in the groundwater sample collected from MW-27 in June 2004 were at relatively low concentrations, including acetone and methylene chloride. The COC concentrations ranged from not detected to 20 ppb (N,N-dimethylaniline), which is consistent with concentrations detected since the implementation of the in-situ anaerobic treatment program in 1998. Acetone and methylene chloride concentrations detected (June 2004), respectively. The June 2004 acetone concentration of 23 ppb does not exceed the NYSDEC Groundwater Quality Standard. Due to the aniline detections, supplemental remedial activities were conducted at this location, as further discussed in Section V.

Downgradient Perimeter Monitoring Locations

• As presented on Figure 13, COCs were not detected at downgradient perimeter monitoring locations above their respective NYSDEC Groundwater Quality Standards, except for benzene at MW-17R, which is hydraulically influenced by the Area 3 closed-loop hydraulic cell. The June 2004 COC results are consistent with the previous results obtained prior to October 2003. The October 2003 aniline and/or N,N-dimethylaniline concentrations detected above their respective NYSDEC Groundwater Quality Standards at downgradient perimeter monitoring locations MW-19, MW-23S, MW-24SR, and PZ-5D are inconsistent with the previous data at these locations and are considered anomalous.

• The aniline and N,N-dimethylaniline non-detect results for MW-18 were rejected during the validation process due to the deviation from a surrogate recovery that was below 10 percent. Aniline and N,N-dimethylaniline have consistently not been detected at MW-18; therefore, this location was not resampled.

V. Supplemental Remedial Activities

To enhance the overall remediation of OU No. 2, the supplemental remedial activities described in the June 2004 biannual report were conducted by BBL Environmental Services, Inc. (BBLES) between August 2 and August 12, 2004 to further address the relatively higher concentrations of COCs consistently detected in groundwater samples collected from monitoring wells MW-8S (Area 3) and TW-02R (Area 2). Additionally, supplemental remedial activities were also conducted immediately downgradient of Area 1 (near monitoring well MW-33) and in the vicinity of monitoring wells MW-27 and MW-28 (Area 3) to address the aniline concentrations detected at these locations. Mr. Chris Mannes of the NYSDEC was onsite August 5, 6, 9, and 10, 2004 during the supplemental remedial activities being conducted near MW-8S and TW-02R.

As detailed below the supplemental remedial activities consisted (in general) of the following activities:

- Well removal/abandonment to allow for soil removal activities in the areas of MW-8S and TW-02R;
- Soil removal in the areas of MW-8S, MW-27, and TW-02R;
- Soil amendment in the area of MW-28; and
- Replacement monitoring well and well point installation for conducting groundwater monitoring and monthly additions of RAMM and Suga-LikTM, respectively.

The supplemental remedial activities were conducted in accordance with the procedures and requirements set forth in the site-specific December 2003 *Health and Safety Plan* (HASP). The NYSDEC-approved August 1999 *Site Operation and Maintenance Plan* included a HASP, which was updated for the December 2003 HASP. The updates generally included the addition of mosquito borne diseases as biological hazards and the addition of benzene as a parameter in the Airborne Contaminant Action Level Table for air monitoring requirements. Daily safety meetings were held to cover the work to be accomplished, the hazards anticipated, the protective clothing and procedures required to minimize site hazards, and emergency procedures. During all intrusive subsurface activities, air monitoring was conducted in the work area perimeter by BBLES in accordance with the HASP. Air monitoring was conducted using an HNU photoionization detector (PID) for organic vapors; a MiniRAM portable dust monitor for total particulates; and a multiple gas monitor for oxygen, carbon monoxide, and flammable vapors or lower explosive limit (LEL). Air monitoring results indicated that the minimum action levels for these parameters, as set forth in the HASP, were not exceeded during the supplemental work.

A detailed description of the supplemental remedial activities is provided below.

Well Removal/Abandonment

Two shallow monitoring wells (MW-8S and TW-02R) were removed by Parratt-Wolff, Inc. (Parratt-Wolff) on August 3, 2004 and August 5, 2004, respectively, to allow for soil removal activities (discussed below). The locations of MW-8S and TW-02R are identified on Figures 14A and 14B. A 4.25-inch inside-diameter (i.d.) hollow-stem auger (HSA) was used to overdrill and remove monitoring wells MW-8S and TW-02R. A 12-inch outside-diameter (o.d.) HSA was then advanced to a depth of 20 feet bgs to remove soil that had surrounded MW-8S and TW-02R. The boreholes were backfilled with approximately 6 inches of bentonite, which was covered with imported clean material (pea stone) and amended with RAMM. An approximate 1-foot thick lift of bentonite was placed at the top of the upper silt/clay layer and additional pea stone was placed to a depth of approximately 3 feet bgs.

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In addition, Parratt-Wolff abandoned deep monitoring well MW-8D on August 3, 2004, as it was adjacent to MW-8S. MW-8D was overdrilled with a 4.25-inch i.d. HSA and was grouted with cement/bentonite grout up to the shallow hydrogeologic unit (approximately 16 feet bgs) and the remaining depth was backfilled similar to MW-8S and TW-02R, as described above. The drill cuttings were collected and containerized in lined roll-offs, characterized, and properly disposed of offsite in accordance with applicable rules and regulations, as further discussed below.

Soil Removal in the Areas of MW-8S, MW-27, and TW-02R

As part of the supplemental remedial activities proposed in the June 2004 biannual report, soil was removed near shallow monitoring wells MW-8S (Area 3) and TW-02R (Area 2). Between August 5, 2004 and August 9, 2004, a 12-inch o.d. HSA was used to remove soil from seven locations near monitoring well TW-02R to a depth of approximately 20 feet bgs. The approximate locations of the seven borings around TW-02R are shown on Figure 14A. This depth below grade is the total depth of monitoring well TW-02R, and is above the silt and clay layer underlying the shallow hydrogeologic unit. Approximately 6 cubic yards of soil were removed from an approximate 8-foot diameter area surrounding monitoring location TW-02R, with the exception of one boring, which was located approximately 6 feet downgradient of the original location of TW-02R. The boreholes were backfilled in the same manner as the boreholes of removed monitoring wells MW-8S and TW-02R described above.

Due to field conditions, a 12-inch o.d. HSA did not effectively remove the soils around MW-8S; therefore, on August 6, 2004 an excavator was used to excavate an area near that well. The approximate location of the excavation area around MW-8S is shown on Figure 14B. The excavation area was approximately 18 feet long by 7 feet wide and the depth of the excavation area was approximately 20 feet at its deepest point (i.e., excavation area was deepest in the center and became shallower towards the sides). This depth below grade is the total depth of monitoring well MW-8S, and is above the silt and clay layer underlying the shallow hydrogeologic unit. Approximately 65 cubic yards of soil were removed from the area surrounding monitoring location MW-8S. The top approximate 6 feet bgs near MW-8S was included in the OU No. 1 remedial activities and therefore the top 6 feet of soil was stockpiled, so it could be placed back into the excavated area. The soil removal area was backfilled with RAMM amended clean material (pea stone) to approximately 7 feet bgs, which was covered with an approximate 1-foot thick lift of a mixture of bentonite and RAMM amended pea stone. The stockpiled soil and additional imported clean fill were placed on top of the bentonite/pea stone mixture.

On August 9, 2004 soil was removed near monitoring well MW-27 and disposed of offsite instead of being amended with RAMM and Suga-Lik[™] and placed back in the boreholes, as was proposed in the June 2004 biannual report. Similar to the soil removal activities conducted around TW-02R, a 12-inch o.d. HSA was used to remove approximately 1 cubic yard of soil from two locations near MW-27 to a depth of approximately 20 feet bgs. The approximate soil removal locations in the vicinity of MW-27 are shown on Figure 14B. The boreholes were backfilled in the same manner as the boreholes of removed monitoring wells MW-8S and TW-02R described above, except the pea stone was amended with Suga-Lik[™] in addition to RAMM.

The drill cuttings and excavated soil generated during the soil removal activities were handled and disposed of in the same manner as drill cuttings generated during the well removal/abandonment activities described above. The roll-offs were covered at the end of the workday, during precipitation events, and after filling.

Two composite waste characterization samples were collected on August 19, 2004 from the soil contained in the roll-offs. These samples were submitted to Phoenix Environmental Laboratories, Inc. of Manchester, Connecticut for the following analyses:

> BLASLAND, BOUCK & LEE, INC. engineers & scientists

- Toxicity Characteristic Leaching Procedure (TCLP) Metals by United States Environmental Protection Agency (USEPA) Method 1311 and 6000/7000 Series Methods;
- TCLP volatile organic compounds (VOCs) by USEPA Methods 1311 and 8260;
- TCLP semi-volatile organic compounds (SVOCs) by USEPA Methods 1311 and 8270;
- TCLP Pesticides and Herbicides by USEPA Methods 1311, 8081, and 8150;
- PCBs by USEPA Methods 3545-3550 and 8082;
- Ignitability by USEPA Method 1010;
- Reactivity Sulfide and Cyanide by USEPA Method 7.3; and
- Corrosivity by USEPA Methods 423/150.1.

A copy of the analytical data package for the waste characterization samples is provided in Attachment 1. The analytical results of the waste characterization samples indicated that the excavated soil does not exhibit hazardous characteristics. The soil contained in the lined roll-offs was transported to CWM Chemical Services, LLC in Model City, New York by Hazmat Environmental Group Inc. on October 5 and 7, 2004. Copies of the completed waste manifests (04001 through 04004) and corresponding bills of lading are provided in Attachment 2.

Soil Amendment in the Area of MW-28

As proposed in the June 2004 biannual report, the soil in the vicinity of monitoring well MW-28 was amended on August 4, 2004 by advancing a 12-inch o.d. HSA to a depth of approximately 20 feet and adding RAMM and Suga-Lik[™] into the subsurface at two locations (approximate locations shown on Figure 14B). The two boreholes were backfilled with approximately 6 inches of bentonite, which was covered with the drill cuttings (soil) from these boreholes, amended with RAMM and Suga-Lik[™]. The drill cuttings were backfilled (returned) into their respective borehole to the depths they were removed from (e.g., soil removed from the bottom of the borehole was returned to the bottom of the borehole). Any drill cuttings not returned to the boreholes were managed and disposed of with the soil removed from the areas surrounding monitoring locations MW-8S and MW-27 (discussed above). An approximate 1-foot thick lift of bentonite was placed at the top of the upper silt/clay layer and additional drill cuttings were placed to the top of the boreholes.

Replacement Monitoring Well and Well Point Installations

Parratt-Wolff installed replacement monitoring wells (MW-8SR and TW-02RR) for abandoned monitoring wells TW-02R and MW-8S on August 10, 2004 at the approximate locations shown on Figures 14A and 14B, respectively. The replacement wells were constructed similar to their respective previously existing monitoring wells, and these locations will continue to be sampled biannually for COCs as part of the Process Control Monitoring Program. The well construction logs for these two replacement wells are provided in Attachment 3. MW-8D was not replaced, as identified in the previous biannual report (June 2004) the hydraulic data obtained over the 6-year operating history of the treatment system in Area 3 consistently indicated no discernable effect on the hydraulic gradient of the deep hydrogeologic unit. The newly installed wells were appropriately developed after installation.

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In addition, eight well points were installed at the site to allow for monthly additions of RAMM and Suga-Lik[™] (approximate locations are shown on Figures 14A and 14B). Six well points (WP-1 through WP-3 and WP-6 through WP-8) were installed in the shallow hydrogeologic unit around both monitoring wells MW-28 and MW-27 (Area 3) on August 4, 2004 and August 10 and 11, 2004, respectively. Two well points (WP-4 and WP-5) were also installed on August 9, 2004 in the shallow hydrogeologic unit around MW-33 instead of amending soil around MW-33 with RAMM and Suga-Lik[™] as was proposed in the June 2004 biannual report. The well points were constructed of a 1-inch diameter black iron riser approximately 10 feet in length joined to a 10-foot stainless steel screened (slotted) interval at the bottom of the well point. The well construction logs for these eight well points are also provided in Attachment 3. The monthly additions of RAMM and Suga-Lik[™] at these eight new well points began in September 2004 and are anticipated to enhance the anaerobic biodegradation of the aniline present in the shallow hydrogeologic unit at these locations.

VI. Conclusions

The process control monitoring data presented in this Biannual Report will continue to be used to monitor the effectiveness of the in-situ anaerobic bioremediation treatment program. The conclusions presented below 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.
- The biological data obtained since commencement of the in-situ anaerobic bioremediation treatment program since 1998 have consistently verified that the saturated soil/groundwater conditions within the shallow hydrogeologic unit at Areas 1, 2, and 3 have been and continue to be conducive to degradation of the COCs by anaerobic microbial populations. Additionally, these data have consistently confirmed that there are sufficient carbon, electron acceptors, and nutrients to sustain microbial activity in each of the three areas.
- Aniline and N,N-dimethylaniline were not detected above the NYSDEC Groundwater Quality Standards at the perimeter sampling locations in June 2004, which is consistent with perimeter groundwater data obtained prior to October 2003 (in some cases since 1989). The aniline and/or N,N-dimethylaniline detections at concentrations above their respective NYSDEC Groundwater Quality Standards obtained during the October 2003 sampling event at downgradient perimeter monitoring locations MW-19, MW-23S, MW-24SR, and PZ-5D are inconsistent with the previous data at these locations and are considered anomalous.
- The COC concentrations detected in the groundwater samples collected from Area 1 since the in-situ anaerobic treatment program began in 1998 have generally decreased to or remained at concentrations ranging from not detected to just slightly greater than their respective NYSDEC Groundwater Standard. The data obtained from the monitoring locations within Area 1 demonstrate a significant decrease in COC concentrations since commencement of the in-situ anaerobic bioremediation treatment program.
- The aniline concentration detected in June 2004 (2,700 ppb) in the groundwater sample collected from the monitoring well located immediately downgradient of Area 1 (MW-33) remained generally consistent with the concentrations detected since March 2001. Based on these aniline concentrations, two well points were installed during the supplemental remedial activities in the vicinity of MW-33 to be used for monthly RAMM and Suga-Lik[™] amendment activities. These activities started in September 2004.

- The COC concentrations within Area 2 have decreased or remained relatively the same during implementation of the in-situ anaerobic treatment program, with the exception of the aniline concentrations detected at monitoring location TW-02R. The data obtained from TW-02R demonstrate a significant decrease in N,N-dimethylaniline and methylene chloride concentrations since commencement of the in-situ anaerobic bioremediation treatment program. The aniline concentrations detected in groundwater samples collected from TW-02R increased from 38,000 ppb in September 1998 to 82,000 ppb in June 2004.
- The concentrations of most COCs that have been detected at Area 3 monitoring locations above their respective NYSDEC Groundwater Quality Standard have decreased or remained relatively the same since commencement of the in-situ anaerobic bioremediation treatment program in 1998. However, during the same time period aniline concentrations detected at monitoring location MW-8S increased from 1,200 ppb in September 1998 to 56,000 ppb in June 2004.
- The concentrations of methylene chloride and aniline at MW-8S and aniline concentrations at TW-02R have remained significantly higher than their respective NYSDEC Groundwater Quality Standard since commencement of the in-situ anaerobic bioremediation treatment activities, even with relatively high levels of biomass present. The relationship between relatively high COC concentrations and biomass levels suggest anaerobic biological processes were active, but may not have been efficiently removing COC mass at these two locations. In August 2004, approximately 70 cubic yards of soil were removed and disposed of offsite as part of the supplemental remedial activities conducted in the vicinity of MW-8S and TW-02R to enhance ongoing anaerobic bioremediation activities. The supplemental remedial activities also included the addition of RAMM amended pea stone to these soil removal areas.
- Since the commencement of the in-situ anaerobic bioremediation treatment activities, the aniline concentrations at MW-27 have increased and have consistently been relatively high at MW-28. Based on these aniline concentrations, approximately 1 cubic yard of soil was removed from the vicinity of MW-27 for offsite disposal and RAMM and Suga-Lik[™] amended pea stone was added to this soil removal area as part of the supplemental remedial activities conducted to enhance ongoing remediation activities. In addition, RAMM and Suga-Lik[™] was added to soil from two locations in the vicinity of MW-28 to supplement (enhance) ongoing remediation activities. Also, as part of the supplemental remedial activities, six well points were installed around MW-27 and MW-28 to be used for monthly RAMM and Suga-Lik[™] amendments activities, which started in September 2004.

VII. Recommendations

Based on the process control monitoring data obtained to date and the conclusions summarized above, the addition of RAMM and/or Suga-LikTM in each of the three areas and the hydraulic control activities in Area 3 will continue to be implemented consistent with the operation procedures followed since January 2002 and described in Section I. Monthly additions of RAMM and Suga-LikTM began in September 2004 at the eight new well points (WP-1 through WP-8) installed near MW-27 and MW-28 (Area 3), and MW-33 (downgradient of Area 1).

As discussed in this report and summarized in Table 4, the ongoing monitoring activities conducted at the site are included in the Biannual Groundwater Monitoring Program and the Process Control Monitoring Program. The activities included in the Biannual Groundwater Monitoring Program will continue, and include the biannual collection of chemical and hydraulic data from downgradient perimeter wells/piezometers to determine whether or not groundwater that contains concentrations of COCs in excess of their respective NYSDEC Groundwater Quality Standard is migrating beyond the site boundary. The Process Control Monitoring Program has consisted of collecting COC, microbiological, and hydraulic groundwater data on a biannual basis to assess the effectiveness of the in-situ anaerobic bioremediation activities.

BLASLAND, BOUCK & LEE, INC. engineers & scientists

Mr. Mark Mateunas November 16, 2004 Page 13

Changes to the Process Control Monitoring Program were proposed in the June 2004 Biannual Report and were anticipated to be implemented during the second reporting period of 2004. Based on your November 1, 2004 conversation with BBL (Cathy Geraci), the Process Control Monitoring Program during the second reporting period of 2004 has been implemented consistent with the monitoring procedures followed since October 2002 (summarized in Table 4). BBL understands that the NYSDEC is evaluating the proposed revised Process Control Monitoring Program and will have a decision in the near future. The proposed revised Process Control Monitoring Program is detailed in Table 5 and the proposed changes (as well as the basis for the change) are summarized below.

- The biological data (i.e., microbiological analytes, indicator compounds, and permanent gases) obtained during the 6 years since commencement of the in-situ anaerobic bioremediation treatment program have consistently verified that the saturated soils/groundwater of the shallow hydrogeologic unit within each area are conducive to anaerobic bioremediation. Additionally, these data have consistently confirmed that there are sufficient carbon, electron acceptors, and nutrients to sustain microbial activity in each of the three areas. Because the biological data in each of the three areas have been consistent, the biological monitoring activities are proposed to be eliminated from the Process Control Monitoring Program.
- The COC sampling schedule is proposed to be changed from biannual to annual at upgradient monitoring location MW-1 and monitoring locations MW-3S, MW-9S, MW-29, MW-30, and MW-34, due to the consistent concentrations of COCs detected below or slightly higher than the NYSDEC Groundwater Quality Standards at these monitoring locations.
- The COC sampling at monitoring location TW-01 is proposed to be discontinued because of the low COC concentrations detected since September 2000 and its close proximity to MW-32. The COC concentrations detected at these two locations in Area 1 have been similar over the past 6 years, except that aniline has consistently been detected at higher concentrations in groundwater samples collected from MW-32 since March 2000. Monitoring well MW-32 has been and will continue to be sampled biannually under the Process Control Monitoring Program.

The second 2004 biannual monitoring event was conducted between November 1, 2004 and November 5, 2004. Consistent with the previous sampling events, BBL coordinated the schedule of the sampling event with you and Mr. Chris Mannes (NYSDEC - Region 7 Office). A summary of the O&M activities and the results of the process control monitoring activities will continue to be presented to the NYSDEC on a biannual basis.

Prior to coordinating the schedule for the first sampling event in 2005, BBL will follow up with you regarding NYSDEC's approval of the proposed changes for the Process Control Monitoirng Program. In the interim, if you have any questions or require additional information, please do not hesitate to contact me or Cathy Geraci at (315) 446-9120.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

. Ulm/mag David J. Ulm

Senior Vice President

CWS/jlc Attachments

 Mr. Jim Burke, P.E., New York State Department of Environmental Conservation Mr. Gerald J. Rider, Jr., New York State Department of Environmental Conservation Mr. Chris Mannes, New York State Department of Environmental Conservation Ms. Henriette Hamel, R.S., New York State Department of Health Ms. Jean A. Mescher, McKesson Corporation Mr. Christopher R. Young, P.G., de maximis, inc.

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TABLE 1

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SUMMARY OF SELECT GROUNDWATER LEVEL MEASUREMENTS

MCKESSON ENVIROSYSTEMS FORMER BEAR STREET FACILITY SYRACUSE, NEW YORK

Line Line <thlin< th=""> Line Line L</thlin<>		Reference	6/10/98	6/22/98	7/6/98	7/20/98	7/27/98	8/5/98	8/10/98	8/10/98	8/11/98	8/11/98	8/12/98	8/12/98	10/16/98	11/17/98	12/16/98	12/22/98	1/6/99	1/13/99	4/14/99	6/3/99	7/13/99	3/27/00	6/1/00	9/18/00	11/14/00	3/19/01	9/24/01	4/15/02	6/3/02	6/18/02	10/7/02	1/20/03	5/5/03 1	0/27/03	6/14/04
Lates Pert Mark West West West West <		Elevation	2.2						(morning)	(afternoon)	(morning)	(afternoon)	(morning)	(afternoou)							West 20	West 46	Weat 52					6									
and bible b	Location	(feet AMSL)	Static			Week 1	Week 2	Week 3	Week 4	Week 4	Week 4	Week 4	Week 4	Week 4	Week 13	Week 18	Week 22	Week 23	Week 25	Week 20	Week 39	262 22	362.78	363 73	363 75	362.75^	363.24	363.01	362.96	364.59	363.64	364.17	362.19	~	363.34	363.34	363.39
Cataline 10.0 10.00 10.00 10.00	Canal	393.39*	362.91	363.37	363.72	363.08	363.08	362.94		362.78	362.94			362.84	363.27		363.14	362.21	363.11	2(1.72	262 17	363.22	361.87	362.99	361.48	361.69	361.66	361.59	362.04	362.27	361.50	361.42	362.05	361.90	361.91	361.86	362.11
914 Meds Mode Mode Mode Mode Mod	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	361.75	363.09	361.93	301./3		365.26	501.57	357.10						367.70	366.26	367.50	364.26	366.27	366.38	366.98	366.65
Physio Physio<	MW-3S	376.54	365.93	366.26	367.82	366.20			365.29							365.25	365.67	366.81	365.07	303.23	265 41	364.92	364 57	355.64	365.57	364.81	355.16	365.40	364.54	364.16	364.55	365.10	363.92	365.10	365.53	365.05	365.59
0 0 100 100 100 100	MW-3D	375.56	365.63	365.87	366.16			364.97	364.85						365.08	365.00	365.04	265.26	365.04	265.06	365.67	365.12	364 79	365.85	365.77	364.97	365.34	365.64	364.75	364.22	364.62	365.21	364.07	365.31	365.75	365.24	365.80
Date Date <th< td=""><td>MW-6D</td><td>377.07</td><td>365.75</td><td>366.01</td><td>366.29</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>365.25</td><td>365.15</td><td>365.23</td><td>303.30</td><td>303.23</td><td>364.74</td><td>365.22</td><td>364 77</td><td>364.35</td><td>365.42</td><td>365.36</td><td>364.62</td><td>364.94</td><td>365.18</td><td>364.34</td><td>364.13</td><td>364.51</td><td>365.01</td><td>363.82</td><td>~</td><td>365.30</td><td>364.83</td><td>365.39</td></th<>	MW-6D	377.07	365.75	366.01	366.29										365.25	365.15	365.23	303.30	303.23	364.74	365.22	364 77	364.35	365.42	365.36	364.62	364.94	365.18	364.34	364.13	364.51	365.01	363.82	~	365.30	364.83	365.39
Deem Distribution	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	304.80	265.26	265.26	365.09	365.65	365.17	364.83	365.88	365.80	365.01	365.36	365.68	364.76	364.05	364.47	365.10	364.00	365.31	365.79	365.26	365.85
Number Prise Number Number <td>MW-9D</td> <td>376.76***</td> <td>365.78</td> <td></td> <td></td> <td></td> <td></td> <td>365.14</td> <td>365.10</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>365.25</td> <td>365.10</td> <td>363.22</td> <td>303.30</td> <td>364 73</td> <td>364 57</td> <td>365.02</td> <td>364.60</td> <td>364.18</td> <td>365.24</td> <td>365.18</td> <td>364.46</td> <td>364.81</td> <td>364.96</td> <td>·364.18</td> <td>364.07</td> <td>364.44</td> <td>364.92</td> <td>363.73</td> <td>364.81</td> <td>365.17</td> <td>364.75</td> <td>365.26</td>	MW-9D	376.76***	365.78					365.14	365.10						365.25	365.10	363.22	303.30	364 73	364 57	365.02	364.60	364.18	365.24	365.18	364.46	364.81	364.96	·364.18	364.07	364.44	364.92	363.73	364.81	365.17	364.75	365.26
Wall Thi Wall Wall Wall Wall Wa	MW-11D	373.68	365.46	365.67	365.29			364.62	364.49	364.50	364.62		364.69	364.67	364.77	304.08	364./3	364 27	363 79	363.61	364.50	363.88	363.39	364.72	364.35	363.55	363.86	364.48	363.33	363.57	363.89	364.33	363.09	364.15	364.38	363.89	364.34
Number Number Number </td <td>MW-HS</td> <td>373.50</td> <td>364.88</td> <td>364.62</td> <td>365.11</td> <td>364.12</td> <td>363.70</td> <td>363.58</td> <td>363.52</td> <td>363.58</td> <td>363.73</td> <td></td> <td>363.69</td> <td>363.74</td> <td>303.74</td> <td>261.00</td> <td>261.02</td> <td>304.27</td> <td>362.05</td> <td>361.84</td> <td>367.18</td> <td>361.79</td> <td>361.38</td> <td>362.43</td> <td>361.77</td> <td>361.71</td> <td>362.08</td> <td>362.17</td> <td>361.50</td> <td>361.65</td> <td>362.09</td> <td>362.50</td> <td>361.37</td> <td>362.26</td> <td>362.69</td> <td>362.26</td> <td>362.62</td>	MW-HS	373.50	364.88	364.62	365.11	364.12	363.70	363.58	363.52	363.58	363.73		363.69	363.74	303.74	261.00	261.02	304.27	362.05	361.84	367.18	361.79	361.38	362.43	361.77	361.71	362.08	362.17	361.50	361.65	362.09	362.50	361.37	362.26	362.69	362.26	362.62
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MY-210 JU-21 MA-34 MY-210 JU-24 JU-24 JU-20 JU-20 JU-20 JU-20 <th< td=""><td>MW-19</td><td>376.00</td><td>362.42</td><td></td><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>264.42</td><td>301.78</td><td>264.26</td><td>301.90</td><td>364 47</td><td>364.26</td><td>364.69</td><td>364.28</td><td>363.83</td><td>364.99</td><td>364.93</td><td>364.25</td><td>364.58</td><td>364.73</td><td>363.99</td><td>363.99</td><td>364.34</td><td>364.80</td><td>363.62</td><td>364.60</td><td>365.01</td><td>364.56</td><td>364.99</td></th<>	MW-19	376.00	362.42												264.42	301.78	264.26	301.90	364 47	364.26	364.69	364.28	363.83	364.99	364.93	364.25	364.58	364.73	363.99	363.99	364.34	364.80	363.62	364.60	365.01	364.56	364.99
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with with with with with with with with	MW-24DR	375.14	365.41		<u> </u>										264.47	304.03	364.67	364.61	364.03	364.34	364.87	364.41	363.95	365.12	365.55	364.30	364.60	364.86	364.05	364.00	364.40	364.86	363.64	364.69	365.03	364.62	365.12
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P2-D 1511 163:4 863.7 164.8 164.8 164.7 164.9 164.7 164.9 1	MW-25S	373.39	363.91	363.64	364.14	363.21	362.95	362.75		362.75		264.85	362.89	302.90	264.80	364.60	364.73	364 97	364 72	364.55	365.02	364.60	364.22	365.28	365.21	364.49	364.82	365.03	364.22	364.06	364.43	364.94	363.73	364.81	365.23	364.78	365.28
PraD 175.8 365.6 365.7 365.8 365.8 365.9 1.0 1.0 1.0 .	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	304.80	364.09	364.73	265.00	364.94	364.78	365.28	364.86	364.47	365.57	365.48	364.71	365.10	365.36	364.46	364.12	364.47	365.03	363.81	365.05	365.49	365.02	365.53
PredD 375.8 845.59 365.79 365.79 365.79	PZ-5D	375.58	365.66	365.91	366.18	365.36	365.07	364.84		364.76	364.88	364.94	364.93	304.91	304.99	265.27	365.22	365.48	365 33	365.19	365.78	365.08	365.00														,
P27D JJ7J25 343/3 <th< td=""><td>PZ-8D</td><td>375.83</td><td>365.90</td><td>366.11</td><td>366.35</td><td></td><td></td><td>365.25</td><td>365.13</td><td>365.83</td><td></td><td></td><td></td><td></td><td>365.13</td><td>365.03</td><td>365.08</td><td>365.74</td><td>505.55</td><td>364.94</td><td>365.50</td><td>365.04</td><td>364.68</td><td>365.70</td><td>365.72</td><td>364.87</td><td>365.16</td><td>365.55</td><td>364.60</td><td>363.75</td><td>364.14</td><td>364.79</td><td>363.71</td><td>365.08</td><td>365.64</td><td>365.09</td><td>365.68</td></th<>	PZ-8D	375.83	365.90	366.11	366.35			365.25	365.13	365.83					365.13	365.03	365.08	365.74	505.55	364.94	365.50	365.04	364.68	365.70	365.72	364.87	365.16	365.55	364.60	363.75	364.14	364.79	363.71	365.08	365.64	365.09	365.68
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72.B 373.22 364.34 364.24 362.34 362.42 362.34 362.42 362.34 362.35 362.34 <td>PZ-A</td> <td>373.94</td> <td>364.49</td> <td>363.69</td> <td>364.28</td> <td>363.13</td> <td>362.58</td> <td>362.56</td> <td>362.62</td> <td>362.76</td> <td>363.39</td> <td>362.82</td> <td>302.04</td> <td>363.02</td> <td>362.73</td> <td>362.50</td> <td>362.50</td> <td>364.27</td> <td>362.62</td> <td>363.45</td> <td>363.91</td> <td>363.19</td> <td>362.67</td> <td>364.08</td> <td>363.32</td> <td>362.79</td> <td>362.94</td> <td>363.94</td> <td>362.55</td> <td>364.44</td> <td>363.24</td> <td>363.40</td> <td>362.65</td> <td>363.39</td> <td>363.47</td> <td>363.89</td> <td>363.21</td>	PZ-A	373.94	364.49	363.69	364.28	363.13	362.58	362.56	362.62	362.76	363.39	362.82	302.04	363.02	362.73	362.50	362.50	364.27	362.62	363.45	363.91	363.19	362.67	364.08	363.32	362.79	362.94	363.94	362.55	364.44	363.24	363.40	362.65	363.39	363.47	363.89	363.21
C2C 374.63 365.97 366.97 <td>PZ-B</td> <td>373.92</td> <td>364.49</td> <td>363.60</td> <td>364.21</td> <td>363.02</td> <td>362.62</td> <td>362.50</td> <td>363.26</td> <td>362.71</td> <td>363.00</td> <td>362.97</td> <td>362.39</td> <td>365.54</td> <td>365.56</td> <td>365 52</td> <td>365 52</td> <td>365.97</td> <td>365.18</td> <td>365.02</td> <td>365.79</td> <td>365.10</td> <td>364.75</td> <td>366.04</td> <td>366.04</td> <td>365.03</td> <td>365.35</td> <td>366.39</td> <td>364.54</td> <td>365.68</td> <td>365.38</td> <td>366.26</td> <td>364.19</td> <td>365.65</td> <td>365.76</td> <td>365.44</td> <td>366.07</td>	PZ-B	373.92	364.49	363.60	364.21	363.02	362.62	362.50	363.26	362.71	363.00	362.97	362.39	365.54	365.56	365 52	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	365.68	365.38	366.26	364.19	365.65	365.76	365.44	366.07
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C42 13/A1/2 36A-30 36A-30 <td>PZ-D</td> <td>375.12</td> <td>365.78</td> <td>366.25</td> <td>306.99</td> <td>365.99</td> <td>365.91</td> <td>363.33</td> <td>365.37</td> <td>365.30</td> <td>363.33</td> <td>360.00</td> <td>364.67</td> <td>364.08</td> <td>363.57</td> <td>363.67</td> <td>363.53</td> <td>366.41</td> <td>363.57</td> <td>363.52</td> <td>364.93</td> <td>364.20</td> <td>363.81</td> <td>365.16</td> <td>365.03</td> <td>363.92</td> <td>364.40</td> <td>365.90</td> <td>363.49</td> <td>366.51</td> <td>364.63</td> <td>364.77</td> <td>363.47</td> <td>364.94</td> <td>365.00</td> <td>366.92</td> <td>364.58</td>	PZ-D	375.12	365.78	366.25	306.99	365.99	365.91	363.33	365.37	365.30	363.33	360.00	364.67	364.08	363.57	363.67	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	366.51	364.63	364.77	363.47	364.94	365.00	366.92	364.58
CP 37.16 366.21 533.38 393.30 533.3 365.43 366.43 365.47 365.44 365.47	PZ-E	374.12	304.75	304.23	304.80	303.73	304.00	303.41	265.60	505.54	304.22	504.07	504.07	504.00	365 37	365.27	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	365.50	365.51	366.29	364.29	366.25	366.41	365.46	366.65
C4-G 357.00 366.16 365.50 365.14 365.50 365.13 365.65 367.02 364.91 365.39 366.16 365.50 365.14 366.80 365.35 365.14 366.80 365.35 365.14 366.80 365.35 365.14 366.80 365.35 365.14 366.80 367.90 366.15 365.84 365.97 365.31 365.66 367.00 365.31 365.66 367.90 366.15 365.84 365.97 365.31 365.66 367.90 366.15 365.97 365.13 365.64 366.66 364.90 365.54 365.97 365.13 365.64 365.97 365.13 365.64 365.97 365.13 365.64 365.97 365.13 365.54 365.97 365.13 365.64 365.97 365.13 365.64 365.97 365.13 365.64 365.97 365.13 365.64 365.97 365.13 365.64 365.97 365.13 365.64 365.97 365.13 365.64 366.97 366.27 <td>PZ-F</td> <td>377.06</td> <td>300.17</td> <td></td> <td></td> <td></td> <td></td> <td>363.30</td> <td>265.60</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>365.46</td> <td>365 36</td> <td>365.60</td> <td>365.76</td> <td>365.71</td> <td>365.44</td> <td>366.44</td> <td>365.61</td> <td>365.17</td> <td>366.89</td> <td>366.80</td> <td>365.36</td> <td>365.75</td> <td>367.11</td> <td>364.93</td> <td>365.39</td> <td>365.53</td> <td>366.22</td> <td>364.36</td> <td>366.35</td> <td>366.46</td> <td>365.43</td> <td>366.68</td>	PZ-F	377.06	300.17					363.30	265.60						365.46	365 36	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	365.39	365.53	366.22	364.36	366.35	366.46	365.43	366.68
72-HR 316-39 196-16 196-36 </td <td>PZ-G</td> <td>377.16</td> <td>300.21</td> <td></td> <td></td> <td></td> <td></td> <td>303.00</td> <td>303.00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>365.44</td> <td>365 34</td> <td>365.54</td> <td>365.84</td> <td>365.60</td> <td>365.39</td> <td>366.34</td> <td>365.55</td> <td>365.11</td> <td>366.80</td> <td>366.68</td> <td>365.33</td> <td>365.66</td> <td>367.02</td> <td>364.91</td> <td>365.39</td> <td>365.46</td> <td>366.19</td> <td>364.24</td> <td>366.22</td> <td>366.41</td> <td>365.50</td> <td>366.62</td>	PZ-G	377.16	300.21					303.00	303.00						365.44	365 34	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	365.39	365.46	366.19	364.24	366.22	366.41	365.50	366.62
C21 378.35 366.15 366.26 365.27 365.17 365.16 365.27 365.18 <td>PZ-HK</td> <td>376.99</td> <td>300.10</td> <td></td> <td></td> <td></td> <td> </td> <td>265.04</td> <td>265.64</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>365.88</td> <td>365.57</td> <td>365.90</td> <td>366.59</td> <td>366.05</td> <td>365.76</td> <td>366.93</td> <td>365.79</td> <td>365.23</td> <td>367.30</td> <td>367.23</td> <td>365.55</td> <td>366.08</td> <td>367.81</td> <td>. 364.91</td> <td>366.29</td> <td>366.16</td> <td>367.05</td> <td>364.22</td> <td>366.58</td> <td>366.90</td> <td>365.97</td> <td>367.01</td>	PZ-HK	376.99	300.10					265.04	265.64						365.88	365.57	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	366.29	366.16	367.05	364.22	366.58	366.90	365.97	367.01
C2-3 534.33 363.13 362.32 363.23 362.32 363.23 362.33 362.34 363.24 363.24 363.24 363.25 <td>PZ-I</td> <td>373.13</td> <td>300.30</td> <td></td> <td></td> <td></td> <td></td> <td>365.53</td> <td>365.40</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>365.53</td> <td>365.39</td> <td>365.55</td> <td>365.93</td> <td>365.59</td> <td>365.47</td> <td>366.21</td> <td>365.53</td> <td>365.14</td> <td>366.55</td> <td>366.50</td> <td>365.32</td> <td>365.64</td> <td>366.69</td> <td>364.96</td> <td>365.10</td> <td>365.18</td> <td>365.89</td> <td>364.21</td> <td>365.96</td> <td>366.73</td> <td>365.61 .</td> <td>366.45</td>	PZ-I	373.13	300.30					365.53	365.40						365.53	365.39	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	365.10	365.18	365.89	364.21	365.96	366.73	365.61 .	366.45
Cr. N 331.3 341.3 341.3 341.3 341.3 341.3 341.3 341.3 341.3 341.3 341.3 341.3 341.3 341.3 342.4 <th< td=""><td>PZ-J</td><td>374.89</td><td>264.52</td><td>262.79</td><td>264.25</td><td>262.22</td><td>367.69</td><td>362.60</td><td>362.71</td><td>362.75</td><td>362.92</td><td>362.80</td><td>362.78</td><td>362.98</td><td>362.82</td><td>362.66</td><td>· 362.66</td><td>363.70</td><td>362.78</td><td>362.58</td><td>363.87</td><td>363.13</td><td>362.59</td><td>363.97</td><td>363.19</td><td>362.69</td><td>362.86</td><td>363.53</td><td>362.49</td><td>. 363.82</td><td>363.19</td><td>363.48</td><td>362.56</td><td>363.25</td><td>363.36</td><td>363.12</td><td>363.13</td></th<>	PZ-J	374.89	264.52	262.79	264.25	262.22	367.69	362.60	362.71	362.75	362.92	362.80	362.78	362.98	362.82	362.66	· 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	. 363.82	363.19	363.48	362.56	363.25	363.36	363.12	363.13
C2-L 304.02 304.02 302.32 <td>PZ-K</td> <td>373.19</td> <td>264.35</td> <td>262.50</td> <td>264.19</td> <td>363.04</td> <td>362.07</td> <td>362.03</td> <td>362.71</td> <td></td> <td>362.92</td> <td>362.60</td> <td>362.57</td> <td>362.84</td> <td>362.65</td> <td>362.40</td> <td>362.51</td> <td>363.59</td> <td>362.65</td> <td>362.45</td> <td>363.69</td> <td>363.00</td> <td>362.47</td> <td>363.84</td> <td>363.03</td> <td>362.61</td> <td>362.68</td> <td>363.42</td> <td>362.47</td> <td>363.44</td> <td>362.96</td> <td>363.26</td> <td>362.53</td> <td>363.42</td> <td>363.25</td> <td>363.06</td> <td>363.04</td>	PZ-K	373.19	264.35	262.50	264.19	363.04	362.07	362.03	362.71		362.92	362.60	362.57	362.84	362.65	362.40	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	363.44	362.96	363.26	362.53	363.42	363.25	363.06	363.04
72-Wi 374.33 364.70 364.70 366.70 </td <td>PZ-L</td> <td>374.02</td> <td>364.23</td> <td>364.00</td> <td>364.10</td> <td>363.52</td> <td>362.92</td> <td>362.40</td> <td>362.44</td> <td>363.09</td> <td>363.29</td> <td>363.15</td> <td>363.05</td> <td>363 30</td> <td>363.12</td> <td>362.93</td> <td>363.01</td> <td>364.07</td> <td>363.13</td> <td>362.94</td> <td>364.06</td> <td>363.40</td> <td>362.90</td> <td>364.22</td> <td>363.54</td> <td>363.05</td> <td>363.24</td> <td>'363.86</td> <td>362.90</td> <td>363.93</td> <td>363.37</td> <td>363.62</td> <td>362.82</td> <td>363.60</td> <td>363.77</td> <td>363.66</td> <td>363.61</td>	PZ-L	374.02	364.23	364.00	364.10	363.52	362.92	362.40	362.44	363.09	363.29	363.15	363.05	363 30	363.12	362.93	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	363.93	363.37	363.62	362.82	363.60	363.77	363.66	363.61
101-1 101-2 <th< td=""><td>PZ-M</td><td>376.94**</td><td>365 79</td><td>366 37</td><td>367.06</td><td>365.99</td><td>365.91</td><td>365 53</td><td>365 39</td><td>365.33</td><td>365.55</td><td>365.97</td><td>365.58</td><td>365.59</td><td>365.59</td><td>365.55</td><td>365.56</td><td>366.09</td><td>365.31</td><td>365.12</td><td>365.87</td><td>365.19</td><td>364.87</td><td>366.17</td><td>366.12</td><td>NM</td><td>365.35</td><td>366.43</td><td>364.47</td><td>366.60</td><td>365.29</td><td>366.13</td><td>364.09</td><td>365.54</td><td>365.74</td><td>364.48</td><td>365.95</td></th<>	PZ-M	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	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	366.60	365.29	366.13	364.09	365.54	365.74	364.48	365.95
12-10 375.30 366.32 366.32 366.32 366.32 366.32 366.32 366.35 366.33 365.44 366.35 365.44 366.35 365.31 365.48 366.19 365.31 365.45 366.35 365.31 365.43 365.31 365.44 365.35 365.44 365.35 365.41 365.35 365.41 365.35 365.45 365.35 365.41 365.35 365.41 365.45 365.35 365.41 365.45 </td <td>P7 0</td> <td>375.36</td> <td>364 20</td> <td>363.68</td> <td>364 29</td> <td>363.21</td> <td>362.84</td> <td>367.72</td> <td>362.87</td> <td>362.78</td> <td>363.05</td> <td>362.97</td> <td>362.80</td> <td>363.03</td> <td>362.81</td> <td>362.74</td> <td>362.75</td> <td>363.74</td> <td>362.87</td> <td>362.68</td> <td>364.01</td> <td>363.25</td> <td>362.73</td> <td>364.22</td> <td>363.57</td> <td>362.86</td> <td>363.06</td> <td>364.22</td> <td>362.64</td> <td>364.47</td> <td>363.63</td> <td>363.98</td> <td>362.75</td> <td>363.61</td> <td>363.53</td> <td>363.36</td> <td>363.43</td>	P7 0	375.36	364 20	363.68	364 29	363.21	362.84	367.72	362.87	362.78	363.05	362.97	362.80	363.03	362.81	362.74	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	364.47	363.63	363.98	362.75	363.61	363.53	363.36	363.43
17.1 376.35 366.25 365.45 365.45 365.70 365.71 365.70 365.71 365.70 365.70 365.70 365.70 365.70 365.71 365.70 <td>PZ-0</td> <td>375.30</td> <td>366.25</td> <td>303.08</td> <td>304.23</td> <td>303.21</td> <td></td> <td>365.65</td> <td>365.60</td> <td>502.70</td> <td>505.05</td> <td>502.51</td> <td></td> <td></td> <td>365.52</td> <td>365.39</td> <td>365.61</td> <td>365.78</td> <td>365.73</td> <td>365.44</td> <td>366.43</td> <td>365.59</td> <td>365.18</td> <td>366.85</td> <td>366.73</td> <td>365.34</td> <td>365.77</td> <td>367.02</td> <td>364.93</td> <td>365.31</td> <td>365.48</td> <td>366.19</td> <td>364.25</td> <td>366.25</td> <td>366.45</td> <td>365.53</td> <td>366.65</td>	PZ-0	375.30	366.25	303.08	304.23	303.21		365.65	365.60	502.70	505.05	502.51			365.52	365.39	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	365.31	365.48	366.19	364.25	366.25	366.45	365.53	366.65
12-12 377.17 366.27 365.27 365.27 365.37 366.37 365.37 365.37 366.37 365.37 365.37 366.37 365.37 365.37 366.37 365.37 366.37 366.37 365.37 366.37 366.37 365.37 366.37 366.37 365.37 366.37 366.37 </td <td>PZ-F</td> <td>377.61</td> <td>366.23</td> <td></td> <td></td> <td></td> <td></td> <td>365.64</td> <td>365 57</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>365.45</td> <td>365.35</td> <td>365.59</td> <td>365.70</td> <td>365.71</td> <td>365.42</td> <td>366.44</td> <td>365.60</td> <td>365.16</td> <td>366.93</td> <td>366.78</td> <td>365.26</td> <td>365.76</td> <td>367.21</td> <td>364.89</td> <td>366.11</td> <td>365.70</td> <td>366.41</td> <td>364.41</td> <td>366.40</td> <td>366.55</td> <td>365.38</td> <td>366.77</td>	PZ-F	377.61	366.23					365.64	365 57						365.45	365.35	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	366.11	365.70	366.41	364.41	366.40	366.55	365.38	366.77
27.4 37.65 366.12 366.25 365.25 366.25 365.25 <td>2-Q</td> <td>377.05</td> <td>366.23</td> <td>~</td> <td>366.94</td> <td></td> <td></td> <td>365.65</td> <td>365 57</td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td>365.50</td> <td>365.38</td> <td>365.61</td> <td>365.81</td> <td>365.67</td> <td>365.47</td> <td>366.46</td> <td>365.61</td> <td>365.20</td> <td>366.89</td> <td>366.81</td> <td>365.37</td> <td>365.72</td> <td>367.21</td> <td>364.93</td> <td>365.40</td> <td>365.58</td> <td>366.31</td> <td>364.31</td> <td>366.34</td> <td>366.46</td> <td>365.31</td> <td>300.72</td>	2-Q	377.05	366.23	~	366.94			365.65	365 57					_	365.50	365.38	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	365.40	365.58	366.31	364.31	366.34	366.46	365.31	300.72
27.1 36.1 36.1 36.1 36.5 36.4 36.5 36.4 36.5 36.5 36.5 36.5 36.5 36.5 36.5 36.5 36.5 36.5 36.5 36.5 365.7 366.3 365.7 366.0 366.7 366.0 366.7 366.0 366.7 366.0 366.7 366.0 366.7 366.0 366.7 366.0 366.7 366.0 366.7	P7_S	37813	366 10		500.54			365.57	365.52						365.43	365.35	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	365.27	365.53	366.29	364.31	366.29	366.42	365.42	307.18
Action State State <t< td=""><td>P7.T</td><td>376.25</td><td>366 14</td><td></td><td></td><td></td><td></td><td>365.54</td><td>365.43</td><td></td><td></td><td></td><td></td><td></td><td>365.52</td><td>365.38</td><td>365.58</td><td>365.96</td><td>365.64</td><td>365.47</td><td>366.34</td><td>365.53</td><td>365.10</td><td>366.71</td><td>366.65</td><td>365.29</td><td>375.70</td><td>366.90</td><td>364.90</td><td>365.34</td><td>365.37</td><td>366.10</td><td>364.20</td><td>366.16</td><td>266.38</td><td>303.74</td><td>300.34</td></t<>	P7.T	376.25	366 14					365.54	365.43						365.52	365.38	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	365.34	365.37	366.10	364.20	366.16	266.38	303.74	300.34
Science Science <t< td=""><td>P7-11</td><td>375.35</td><td>365.99</td><td>· · · </td><td>366.81</td><td></td><td></td><td>365.50</td><td>365.33</td><td></td><td></td><td></td><td></td><td></td><td>365.37</td><td>365.30</td><td>365.49</td><td>365.91</td><td>365.55</td><td>365.40</td><td>366.17</td><td>365.46</td><td>365.08</td><td>366.55</td><td>366.49</td><td>365.22</td><td>365.60</td><td>366.75</td><td>364.85</td><td>365.18</td><td>365.23</td><td>365.96</td><td>364.18</td><td>366.00</td><td>365.83</td><td>365.00</td><td>266.44</td></t<>	P7-11	375.35	365.99	· · ·	366.81			365.50	365.33						365.37	365.30	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	365.18	365.23	365.96	364.18	366.00	365.83	365.00	266.44
2-2-W 375.78 366.07 365.44 365.78 365.44 365.78 365.43 365.43 365.43 365.43 365.43 365.43 365.43 365.43 365.43 365.43 365.43 365.43 365.43 365.43 365.44 365.78 365.44 365.78 365.44 365.78 366.41 365.20 365.45 364.85 364.05 365.45 365	P7.V	375.78	366.07					365.48	365.35						365.43	365.29	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	365.30	365.24	365.97	364.13	365.98	366 18	365 40	366 36
	PZ-W	375.78	366.07					365.46	365.31						365.41	365.28	365.44	365.78	365.53	365.33	366.15	365.41	365.02		366.41	365.20	365.59	300.03	304.85	303.05	303.12	303.00	304.09	103.00	500.10	505.49	

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)

Advise - Advise - Advise Mean Sea Level (NGV D of 1929)
 The ground-water level in PZ-8D was not measured on 3/27/00 and 6/1/00 because this piezometer was damaged. This piezometer was decommissioned on August 30, 2000.
 ^ = 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.

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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. ** = 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.

8. --- = Ine reterence elevation for PZ-N was 3/0.02 feet AMSL prior to 11/16/00 and, as noted above, the new reterence elevation is 3/0.94 feet AMSL.
9. *** = Monitoring well MW-9D inner PVC pipe was reduced (cut) by 1½ inches on 9/19/01. The reference elevation prior to 9/19/01 was 376.88 feet AMSL. The new reference elevation for MW-9D is 376.76 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. Monitoring location MW-8S was decommissioned on August 3, 2004 and replaced by MW-8SR on August 10, 2004.

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Biological Monitoring Data 6/14 - 6/18/04

McKesson Envirosystems Former Bear Street Facility Syracuse, New York

			2.432.7			SV (S S SP &				Biologi	cal/Paran	ieters 🏠	t the state of the						3. A.M.S.	577. S.		
Monitoring	• PLFA	, PHA	Turnover	Environmental	Nitrate	Nitrogen	Tötál	Dissolved	Total	Dissolved	Sulfate	Sulfide	Carbon	Methane	Potassium	Ortho-	Ammonia	⊳рН	D:O.	Temp.	ORP	Cond.
Location			Rate	Stress			Fe	Fe 7.	Mn	Mn			Dioxide			Phosphate		10.04				
ADEAN	<u>I (Pmol/mL)</u>	[(PmoVmE)]+(mg/L)	(mg/L)	[(mg/L)	(mg/L) <	(mg/L)	<u>⊘ (mg/L)×</u>	[(mg/L)	[(mg/L)]	(mg/L)]√.(mg/L)	<u>(mg/L)</u>	<u>≫ (</u> mg/L)≫	(All on test	<u>(mg/L):</u>	<u>(C)</u>	<u>(mV)</u>	(mS/cm)
MW-1	7		0.20	0.11	<pre>1 <0 200</pre>	15	R	R	R	R R	051	<2.00	22	L0 000048	ECSC F ADECI	i la la constante de la constan La constante de la constante de	in the second se	6.09	1.07	16 47	<u>677 (</u> 52	1 10
TW-01	4	ND	0.12	0.07	<0.200	19	2.91	0.728	0.944	0.864	273	<2.00	98	0.56	7.59	0.95	1.14	6.92	0.35	11.73	-102	1.58
MW-31	1	ND	·0.00	0.08	<0.400	8.7	6.70	0.706	1.80	1.56	43.6	<2.00	240	9.7	6.00	<0.04	1.57	6.92	0.43	14.16	-86	3.11
MW-32	1	ND	0.00	0.09	<0.200	19	4.09	1.09	1.05	1.08	275	<2.00	120 ·	0.78	5.20	0.140	0.921	6.59	0.35	11.87	-104	1.78
MW-9S	27	ND	0.08	0.02	<0.400	12	11.3	3.47	1.66	1.59	24.8	<2.00	160	4.5	3.95	0.099	0.270	6.73	1.42	15.65	-126	1.96
MW-33					2.33	4.3	0.898	0.332	0.892	0.782	153	<2.00	420	12	8.88	0.18	· 0.392	6.32	0.33	15.30	-333	4.80
AREA 2	<u> </u>				antes de la composition de la composition En composition de la c	Contraction (Contraction)						386.22		27.000000		1			2000			
1 W-02R	113	ND ND	0.07	0.04	<0.200	14	1.76 J	2.48 J	R	<u>R</u>	7.92	<2.00	240	6.8	9.80	0.13	77.9	6.74	0.49	13.51	-185	4.52
MW-34	4		0.01	0.09 -	<0.200	12	6.62	1.11	8.18	0.860	14.1	<2.00	190	3.4	29.3	0.10	7.58	6.57	0.37	14.09	-177	2.20
MW-36	, ,		0.14	0.09	0.200	18	0.849	0.524	0.497	0.406	40.6	<2.00	79	0.0076	3.44	0.16	0.942	6.92	0.92	14.56	-67	0.83
AREA 3		40.0855.852	1		0.273	<u> </u>	0.244	0.139		3.02	<u></u>	~2.00	510	1 4.7 Kair	22.0	0.09	18.1	0.04	0.75	13.95	-142	4.17
MW-3S	12	ND	0.18	0.08	0.465	.15	3.15	1.90	2.64 J	3.21 J	9.08	<2.00	58	2.4				6 73	0.68	12.88	-114	0 4 7
MW-8S	192	ND	0.26	0.11	4.48	6.8	135	50.9	3.30	3.19	28.7	<2.00	630	6.9	14.70	0.98	272	6.05	0.69	14.03	-144	6.85
MW-27	3	ND	0.07	0.05	<1.00	13	20.8	2.84	1.03	0.978	24.7	<2.00	280	6.7	6.40	0.074	6.77	6.45	0.31	12.40	-268	3.30
MW-28	9	ND	0.18	0.11	<1.00	10	41.6	3.41	1.63	1.45	41.9	<2.00	300	5.2	5.77	<0.04	8.50	6.49	1.50	13.95	-118	3.81
MW-29		<u> </u>		·	1.15	15	0.160	0.138	0.418	0.345	175	<2.00	120	2.8	9.10	0.08	0.821	6.71	0.25	13.51	-339	3.11
MW-30		<u> </u>			1.26	18	0.267	0.146	0.166	0.0958	136	<2.00	120	2.4	8.40	0.16	0.768	6.79	0.25	11.80	-332	2.99

Notes:

1. PLFA = Phospholipid fatty acids.

2. PHA = Poly-b-hydroxy alkanoate.

3. Turnover Rate = The summation of cy17:0/16:1w7c plus cy19:0/18:1w7c.

4. Environmental Stress = The summation of 16:1w7t/16:1w7c plus 18:1w7t/18:1w7c.

5. Fe = Iron.

6. Mn = Manganese.

7. D.O. = Dissolved oxygen.

8. Temp. = Temperature.

9. ORP = Oxidation/reduction potential.

10. Cond. = Conductivity.

11. Pmol/mL = Picomoles per milliliter.

12. mg/L = Milligrams per liter.

13. C = Degrees Celsius.

14. mV = Millivolts.

15. mS/cm = Millisiemens per centimeter.

16. -- = Not measured.

17. < = Parameter was not detected at the listed limit.

18. J = Result is estimated, reported value is less than practical quantitation limit (PQL).

19. ND = Not detected.

20. R = The total iron and/or manganese detected at MW-1, TW-02R, and MW-3S were less than the concentrations of dissolved iron and/or manganese; based on the deviations these data were rejected or estimated accordingly.

Table 3

	*Sampling	Screen Elev.	(ft. AMSL)		()		Ethyl-			Trichloro-		N.N-dimethyl-	Methylene
Monitoring Well	Date	у. — Тор 🤇 🗤	💭 Bottom 😪	Acetone	Benzene	Toluene	Webenzene.	Xylene	Methanol	aethene >	Aniline	. Aniline	Chloride 🛌
MW-1	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 J	<1,000	<10 J	<10 J	<10	<10 J
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	Č. 10.
	9/01			<10	<10	<10	<10	<10	<1,000 J	<10	<10	<10	<10
	4/02			<12	<5	<5	<5	<10	990 J	<5	< उं	<5	<্য
	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	<১	ৎ	<10	<1,000	<5	2 J	<5	<5∶
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10%
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	100,200	<52	2,440	2,700
	11/91			2,900	10 -	10 2	4	• 31 .	<1,000	<10	790	170	<10
	8/95			<1,000	ব	<5	<5	<5	<1,000	<5	15	S.∠ 2 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	1		<10	3 J	8 J	1 J	2 J	<1,000 J	<10	(690 D (69)	4 J	<10
	4/02	1		<12	<5	<5	<5	<10	370 J	<5	1.7 J	<5	<5
	10/02	1		<25	<10	<10	<10	<20	<1,000	<10	<5	R	<10
	5/03	1		<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/03	1		<12	<5	<5	['] <5	<10	<1,000	<5	4 J	<5	<5
	6/04	1 .		6 J	<10	<10	<10	<20	<1,000	<10	0.8 J	<6	<10
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	1		<100	<1.	<1	<1	<1	<1,000	<1	<11	19	280
	11/89	1		<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1

Table 3

Monitoring Well	Sampling Date	Screen Elev.	(ft. AMSL) Bottom	Acetones	Benzene	Toluene	Ethyl- benzene	Xylene ⁴ .	Methanol	Trichloro- etheoe	Aniline	N.N-dimethyl- aniline	Methylene
MW-5 ^F	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 ^c	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	<্য	<5	<5	<5	<1,000	<5	<5	<10	<10
MW-7 ^c	1/89	367	357.4	<100	<1	<1	<1	2	<1,000	<1	<11	<11	100
	11/89	l		<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<<1
MW-8 ^C	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) ^N	11/89			470,000	<10,000	<10,000	<10,000	<10,000	300,000	<10,000	8,500	52,000	2,800,000/2-4
(Replaced by MW-8SR)	11/91	Į		<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.	A120,000 D	*650,000 DB:->
	7/99			10 J	22 J	240 J	58 J 🖓	220 Ĵ	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 Js	793,000 D 🤉	773,000 D	660,000 D.
	10/02	4		2120'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	ł		21	25	330 D.	- 93	360	1,200 J	3,100 D	67,000 D	24;000 D	400,000 D (^{k)}
	6/04			<25	40	330 E J	245,110	400	<1,000	5,900 D	56,000	51,000	1,200,000 D
MW-9 ^C	1/89	365.6	356	1,600	NA	64;	130	270	<1,000	<10		1,200	1,500
(Replaced by MW-9S)	11/89	1		<1,000	48	25	60	60	<1,000	<10	670	150	<10
	11/91	Į		<100	<10	······································		1. 30/2	<1,000	<1	95	18	<1
	8/95	4		<1,000	<u>11 JD</u>	26 JD	69 D	226, JD	<1,000	<50	.50	: 28	,110 D
	7/99			<10	(° ~4`J ∕ }	2 J	9 J]8×\$2,	<1,000	<10	<10	5 J	<10
	3/00			<10	2 J. (+)	2 J	11. 5	21	<1,000 J	<10	2 J	9 J. *	<10
	9/00	· ·		<10 J	11 J	- 2 J	• 6 J.	18 J	<1,000	<10 J	1 J	6 J	<10 J
	3/01	1		<10	1 J	3 J	17	61	<1,000	<10	2 J	\sim 11 \sim 2	<10
	9/01	ļ		<10	<u> </u>	3 J		35	<1,000 J	<10	<10	J101+	<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	2 J.	<10
	5/03			<12	(S. 110-)	ও	19.25.76.75	18	<1,000	<5	0.9 J	ere 3 J (<5
	10/03			<12	2 J	<5	5	19+	<1,000	<5	1 J	<5	<5 .
	6/04		<u> </u>	14 J	6 J 🦄	2 J	8-J	:::€19¦J	<1,000	<10	<5	<5	<10
MW-10°	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	4		<100,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	or 900	2;400	28,000
	11/91	4		<100	<1	3	2	<3	<1,000	<1	¢., *230¢, .	<10	41
	8/95		l. <u>.</u>	<1,000	<25 UD	<25 UD	<25 UD	<25 UD	<1,000	<25 UD	<5	<10	350 D.

Table 3

McKesson Envirosystems Former Bear Street Facility Syracuse, New York

Moniforing Well	Sampling() Date	Screen Elev Top	(ft. AMSL) Bottom	Acetone	Benzene	Toluenes	Ethyl-	Xylene	Methanol	Trichloro=	Aniline	N:N-dimetbyl- aniline	Methylene Chloride
MW-11 ^C	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	ব	<10	<10
MW-11S	12/94	359.9	354.9	<380	<10	<10	<10	<10	880	<10	<5	<10	<10
	8/95			<1,000	<5	<5	<১	<5	<1,000	<5	<5	<10	<26
	10/95	1		NA	<5	<5	<5	<5	NA	ৎ	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	ৎ	<5	<5	<5	NA	<5	NA	NA	ব
MW-12D ^C	1/89	354.8	345.2	<100,000	<1,000	<1,000	<1,000	<1,000	12,000	<1,000	67	410	120,000
(Replaced MW-8D) ^N	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 J	<5	<10 `	40
MW-13S	11/89	368.7	359.1	<100	· 3,	<1 .	<1	<1	<1,000	<1	<52	<52	· <1
	11/90			<100	<1.	<1	<1	<3	<1,000	<1	<10	<10	ية <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-14D ^F	1/89	359	349.4	<100	<1	<1	. <1	<1	<1,000	<1	<11	<11.	<1
	11/89			<100	<1	<1	<1	<1	<1,000	<1	<10	<10	<1
MW-15S	1/89	370	360.25	<100	<1	<1	<1	<1	<1,000	<1	<11	<115	<1
	11/89			<100	<1	<1	<1	<1	<1,000	<1	<52	<52 -	<1
MW-16D ^F	1/89	350.8	341.2	<100	<1	<1	<1	<1	<1,000	<1	<11	<11.	<1
	11/89			<100	<1	<1	<1	<1	<1,000	<1	<10	<10%	· < -
MW-17 ^F	11/90	365.7	356.1	<100	<1	<1	<1	<3	<1,000	<1	<10	<10	<1
(Replaced by MW-17R)	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	_<11
	10/95-			NA	· <5	<5	<5	<5	NA	2 J	NA	NA	<5
4	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	<10	<10
	9/00			'<10 J	215 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	, ∼ 24 Ĵ, ~ i	4 J.	1 J
	3/01			<10	∕, 8J	<10	<10	<10	<1,000	<10	<10	. <10	<10
	9 /01	ł		<10	5 J.	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	6	<5	<5	<10	620 J	<5	∜≤150 (<5) ^K ≥	<110 (<5) ^k ≯	<5
	10/02			<25 J	1 14	<10	<10	<20	<1,000	<10	<5 ^L	<5 ^L	<10
	5/03			<12	8	<5	<5	<5	<1,000	ৎ	<5	<5	<5
	11/03			<12		<5	<5	<10	<1,000	<	<5	<5	
	6/04			<25	5 J.	. ~<10	<10	<20	<1,000	<10	<5	<5	<10

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Tablé 3

McKesson Envirosystems Former Bear Street Facility Syracuse, New York

	Sampling	Screen Elev.	(ft: AMSL)	yan tan			Ethyl-	26.23		Trichloro-		NN-dimethyl-	Methylene
Monitoring Well	🖓 4 Date 🗠	Top	Bottom	Acetone	Benzene	Toluene	Albenzene	Xylene ^A	Methanol	ethene	Aniline	aniline	Chloride
MW-18	11/89	325.15	316.15	<100	<1	<1	<1	<1	<1,000	<1	<10	< <u>1</u> 0	<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 (<)	200 D (<5)	<10
	10/02			6 J	<10	<10	<10	<20	<1,000	<10	<5 ^L	<5*	<10
	5/03			<12	<5	<5	<5	<5	280 J	<5	<5	<্য	<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
MW-19	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	<্য	<5	<1,000	<5	<5	<10	<12
	10/95			NA	<5	<\$	<5	<5	NA	. <5	NA	NA	<5
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	্থ	<10	<10
	8/96			<10	<10	<10	<10	<10	- <1,000	<10	<5	<10	<10
	2/97	ł		<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	4		<10	<10	<10	<10	<10	<1,000	<10	<5	5 J	<11
	2/99	4		<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	7/99	4		<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	.<10	<10	<10 J
	3/00	4 ·		<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00	4		<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	ł	1	<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	10/02	{		<25 J	<10	<10	<10	<20 J	<1,000	<10	<5-	<5°	<10
	5/03	ł		<12	<5	<5	<5	- <5	<1,000	<5	<5	<5	<5
	10/03	4		<11	<5	<5	<5'	<10	<1,000	<5	0.00 51kJ 979	16 J	<5
	0/04	·	·	<25	<10	510	<10	<20	<1,000	<10	<>	<>	<10

11/16/2004 P:\ЛLC\2004\42840146.xls

Table 3

Service and the service service of	Sampling	Screen Elev.	(ft. AMSL)		t in the	· .	Ethyl-			Trichloro-		N,N-dimethyl-	Methylene
Monitoring Well	Date	Top	Bottom	Acetone	Benzene	Toluene	benzene	Xylene ^A	Methanol	ethene	Aniline	aniline	Chloride
MW-20 ^F	11/89	329.85	320.85	<100	<1	<1	<1	<i< td=""><td><1,000</td><td><1</td><td><10</td><td><10</td><td><1</td></i<>	<1,000	<1	<10	<10	<1
	11/90			<100	<1	</td <td><1</td> <td><3</td> <td><1,000</td> <td><1</td> <td><10</td> <td><10</td> <td><1</td>	<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 ^F	11/89	323.65	314.65	<100	<5	<1	<1	<1	<1,000	<1	<10	<10	<1
MW-22	11/89	368.55	359.55	<100	<1	<1	<1	<1	<1,000	<1	· <10	<10	<i< td=""></i<>
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
	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°	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		Ì	<10	<10	<10	<10	<10	<1,000	<10	<10	<10	· <10
	4/02			<10	<5	<5	<্য	<10	<1,000	<5	<5	<5	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5 ^L	<5 ^L	<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
MW-23I	12/94	341.2	336.2	<10	<5	<5	ব	<5	<200	<5	<5	<10	ব
	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		1	<10 J	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	3/00		l	<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	l		<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	<i,000< td=""><td><10</td><td><5^L</td><td><5^L</td><td><10</td></i,000<>	<10	<5 ^L	<5 ^L	<10
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	10/03	l		<12	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	6/04		1	<25	<10	<10	<10	<20	<1,000	<10	1 J	<5	<10

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Table 3

McKesson Envirosystems Former Bear Street Facility Syracuse, New York

State of the second	Sampling	Screen Eley.	(ft. AMSE)		52 (A. 199		Ethyl	16.27.01		Trichloro-	20.40	N.N-dimethyl-	Methylene
Monitoring Well	Date.	Тор	Bottom	Acetone	Benzene	Toluene	benzene -	Xylene	Methanol	ethene	Aniline	aniline	Chloride
MW-24S ^F	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	ও	<5	<5	<1,000	<5	<5	<10	<10
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	ৎ	<10	<10
	2/97	« ^{**}		<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
1	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	1		<10	<10	<10	· <10	<10	<1,000	<10	<10	<10	<10
	6/02 ^K			NS	NS	NS	NS	NS	NS	NS	ND	ND	NS
1	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5 ^L	<5 ^L	<10
	10/03			<12	<5	<5	<5	<10	<1,000	<5	16	<6	<5
	6/04			<25	<10	<10	<10	<20	<1,000	<10	<5	<5	<10
MW-24D ^F	12/94	334.4	341.2	<10	<5	<5	<5	<5	<1,000	<5	<5	<10	<্য
(Replaced by MW-24DR)	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<্য	<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	j ·		<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	6/02 ^K			NS	NS	NS	NS	NS	NS	NS	ND	ND	NS
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5 ^L	<5 ^L	<10
	10/03			<12	<5	<5	<5	<10	<1,000	ব	0.5 J	<5	<5:
MW-25S	8/95	361.2	356.2	<1,000	<5	<5	. <5	<5	<1,000	<	<5	0.7 J	<10
	10/95			NA	<5	<5	ব্য	<5	NA	<5	<5	<10	<5
	8/96	1		<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	30.130	<10	<10 J
	6/99			<101	<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	Į ·		<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	9/00	1		<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	3/01	ļ		<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	9/01	1		<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02	1		<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	. 10/02			<25	<10	<10	<10	· <20	<1,000	<10	<5 ^L	<5 ^L	<10
	5/03	1		<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

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Table 3

	Sampling	CScreen Elev	(ft: AMSE)				Ethyl			Trichloro-		N,N-dimethyl-	Methylene
Monitoring Well	Date	Top	Bottom	Acetone	Benzene	Toluene	benzene	Xylene ^A	Methanol	ethene .	Aniline 💦	aniline	- Chloride
MW-25D	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
2 .	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	5 J	<10	<10
· ·	4/02			<10	<5	<১	. <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
MW-26	12/96	365	355.3	<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
MW-27	9/98	362.5	354.5	23	3 J 🖓	4 J	<10	3 J	<1,000	<10	340 DJ	<10	<10
	7/99			<10 J	. 4 J	2 J	3 J	.8 J.	<1,000	<10	740 D	<10	<10
	3/00			<10	6 J.	<10	8 J -	2 J	<1,000 J	<10	• • •110 D • •	1 J	<10
	9/00			<10 J	- 4 J	<10 J	3 J	1 J	<1,000 J	<10 J	16 J	5 2 J	1 J
	3/01			<10	55 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 3
	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	5. 3,700 D	<5	240/D
	6/04			23 J		4 J	2 J	6 J.	<1,000	<10	3,700 D	20 J	<10
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	5. 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	23.8,100 BJ
	3/01			<400	<400	<400	<400	<400	<1,000	<400	3,200 D'i	5. 77 9	5,900 B
	9/01			<400	<400	<400	<400	<400	<1,000 J	<400	1,000 D	<10	4,700 B
· · · ·	4/02			<49	8.	6.2	9	3 10 J	<1,000	<5	33,400 D	\$2.57 ST	4,600 D
	10/02			14 J	, 1 8 J	6 (J	11	12 J.	<1,000	<10	2;700 D	R	<10
	5/03			13	204 J X	2 J	2 J .	÷ ∻ 8 J 5	<1,000	<5	1,000 DJ	3 J 🔧	52
	10/03			24	28 n & 1	6.7.4	12	213 J 🔊	<1,000	<5	1,900 D	<5	<5
L	6/04			20 J	- 4 J. (*)	2 J	5 J	4 J	<1,000	<10	910 D	<5	<10

Table 3

	Sampling	Screen Elev:	(ft: AMSL)	27 3 858	Sec. 1	908-41 ¹⁵	Ethýl->			Trichloro-		N,N-dimethyl-	Methylene
Monitoring Well	Date	Top	Bottom	Acetone	Benzene	Toluene	benzene	Xylene	Methanol	ethene	Aniline	aniline	Chloride 4
MW-29	9/98	362.9	345.9	<10	<10	<10	<10	2 J	<1,000	<10	<10	13	<u><10</u>
	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# / 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	₩ 7J	2, J	<10
	4/02			<10	<5	<5	<্য	<10	<1,000	<5	3 J		<6
	10/02			<25 J	<10	<10	<10	<20	<1,000	<10	8	R	4 JN
	5/03			<12	<5	<5	<5	<10	<1,000	<5	19	1 J	3
	10/03			<12	<5	<5	<5	<10	<1,000	<5	2 J	<5	<5
101144	6/04			<25	<10	<10	<10	<20	<1,000	<10	3 J	<5	<10
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 JC	<10
	•//99			<10	0.7 J	<10	<10	<10	<1,000	0.5 J	<10	1 J	<10
•	3/00	{ ;		<10	<10	<10	<10	<10	<1,000 J	<10	18	2 J	4 J
	9/00			<10 J	<101	<101	<10 J	<10 J	<1,000 J	<10 J	9 J	2 J. G	2 J
	3/01	4 :		<10	<10	<10	<10	<10	<1,000	<10	*/~ 8'J.	2 J	<10
	9/01	{		4 J	2, J	<10	<10	<10	<1,000 J	<10	8 J	1 J	<10
	4/02	4		<10	<		<>	<10	<1,000	<5	3 ap., 250 (24)	210	<5
	10/02			<251	<10	<10	<10	<20 J	<1,000	<10	R	R	<10
	5/03			<02	<25	<25	<25	00>	<1,000	<25	18	0.6 J	8 J
	10/03 6/04			<12	<)	<>	<5	<10	<1,000	<5	4 J	<5	<5
101/ 21	0/04	1		< <u>2</u> 3		<10	<10	20	<1,000	<10	< <u>></u>	<>	<10
MW-31	9/98	303.7	300.4	· <10	125	<10	<10	<10	<1,000	<10	34	4 J	<10
	1/99	-		<10	10	<10	<10	<10	<1,000	<10	230 DC	- <u>-</u> 3 J. 4	<10
	3/00			<10	298.2 10 Y	<10	<10	<10	<1,000 J	<10	3 J	4 J	<10
	9/00			<101	5 12 J	101>	<101	<10 J	<1,000	<10 J		6 J	<10 J
	3/01	4		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.= .	3J.	<10
	4/02	4		<14	1. S. S. S. S. S.		<5	<10	<1,000		*804 D	A 21, 21, 200, 2	<5
	10/02	{		<25	115261 15261	<10	<10	<20	<1,000	<10	560 D% 2	1 J	<10
•	5/03	•		<12	1	<u></u>	< <u>></u>	<10	<1,000	<5	0.9 J	3 J E 2 V	<5
	10/03	4		15 J	1325	<	0	<>	<1,000	<5	88	<5	<5
101/ 22	0/04		266	. 15 J	5.0012	<10	<10	<20	<1,000	<10	3 J	<>	<10
MW-32	9/98	364	356	<10	2 10 J	2 J	5 J	3 J	<1,000	<10	56,300 D	4 J	<10
	1/99	1		3 J	* 14	2 J	4 J	<10	<1,000	56	<10	6723-(3.J.C.256	<10
	3/00	4		<10	5-J	<10	<10	<10	<1,000 J	<10	800 D	<10	<10
•	9/00			<101	12 J2 A	<101	<10]	<10 J	<1,000	<10 J	4,500 D	<10	<10 J
	5/01	4		<10	579 S.	<10	<10 <10	<10	<1,000	<10	1,900 D.X	2 J	<10
	9/01	4		<10	San 10/02/2	<10	<10	<10	<1,000 J	<10	1,100 D	2 J	<10
	4/02	{		<15	4.00.00	< <u>,</u>	<>	<10	<1,000	<>	5 ~ 4;020 D'	ALCONTROL OF	<5
	10/02	.		<23		<10	<10	<20	<1,000	<10	3497250	ĸ	<10
	3/03	1		30			· · · · · · · · · · · · · · · · · · ·	<10	<1,000	< <u>,</u>	U.O J	U. / J	<>
	6/04	1 .		20 6 I	11	<10	<10	<10	<1,000	<>	<> 1 T		<10
	0/04	1				1 10		1 740	1 1.000	NI0			NIV

Table 3

	Sampling	Screen Elev.	(ft. AMSL)	60 (S. G		1 (A)	Ethyl-	1775 S		Trichloro-		N.N-dimethyl-	Methylene
Monitoring Well	Date	Тор	Bottom	Acetone	Benzene	Toluene	s benzene	Xylene	Methanol	ethene	Aniline	aniline	Chloride
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		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	t Anjja ≫	885 II ASS
	9/00			45 J	4 J S	1 J	<10 J	<10 J	<1,000	<10 J	540 D	23' 2'	330 DJ
	3/01			17 J	<20	<20	<20	<20	<1,000	<20	1,300'D	16 22	370 B
	9/01			21	= \`5 J∾ j	<10	<10	· <10	<1,000 J	<10	1,900 D	*** 121	<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	Se 3 J S ≤	4 J
	5/03				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
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	i 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¶6*?	<10 J
	3/01			<10	<10	2 J	<10	2 J	<1,000	<10	700 D	6 5 J	<10
	9/01			7 J	2 J	2 J	<10	2 J	- <1,000 J	<10			<10
	4/02			<32	<5	<5	<5	<10	<1,000	<্য	640 D	15	<5
	10/02			37 J	<10	<10	<10 ;	<20	<1,000	<10	380 DJ.	2J	<10
	5/03			16	< ১	<5	<5	<10	<1,000	<5	140		<5
	10/03			9 J	<5	<5	<5	` <10	<1,000	<5	1800.0	<5	<5 [·]
	6/04			24 J	<10	<10	<10	<20	<1,000	<10	-30	<5	<10
MW-35	9/98	363	355	<10	<10	<10	<10	<10	<1,000	<10		5 J	<10
	7/99			<10	0.7 J	<10	<10	<10	<1,000	<10	3 J	4 10	<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. 1 &	<10
	4/02			<13	<5	<5	<5	<10	<1,000	<5	3 J	a 🤊 🔄 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	<্য	<5
	6/04	[]		<25	<10	<10	<10	<20	<1,000	<10	30	4 J. 24	<10

Table 3

	Sampling	Screen Elev	(ft AMSE)		05054230		Ethyl->			Trichloro-	ad Salar	N.N-dimethyl-	Methylene
Monitoring Well	Date	Top:	Bottom	Acetone	Benzene	Toluene	benzene	Xylene [*]	Methanol	ethene's	Aniline	aniline	3. Chloride
MW-36	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		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	<\$	ব	<5	<10	<1,000	<5	9.4	41	<5
	10/02			12 J	<10	<10	<10	<20	<1,000	<10	2 J	42 J	<10
	5/03			9 J	<5	· <5	ৎ	<10	<1,000	<5	67	• 4 J	<5
	10/03			580 D	<5	<্য	<5	<10	<1,000	<5	·//:100	<5	. <5
	6/04			22 J	<10 J	<10 J	<10 J	<20 J	<1,000	<10 J	5 33:	(45.50° 7 ,752 7 ,5	<10 J
TW-01	12/96	. 365.1	355.4	<10	82-,4-	4 J	€6 Ĵ∂*??	4 J	<1,000	<10	2,090 D.	· · · 13	4 J
	9/98	i		<10	15	<10	4 J	<10	<1,000	<10	4;400 DEJ	4J.5.	<10
,	. 2/99			<10	24	2 J	2 J	2 J	<1,000	<10	9,000 [°] D	5 J	<10
	7/99			<10	J'6,	1 J	3J.	<10	<1,000	<10	4;400 D	4 J	<10
	3/00			<10	16	<10	<10	<10	<1,000 J	<10	⇒- 280 D		<10
	9/00			<10 J	11 J	<10 J	<10 J	<10 J	<1,000	<10 J	15	2 J.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 ^{20,1}	<5	<5	<10	<1,000	<5		13	<5
	10/02			<25	7'j	<10	<10	<20	<1,000	<10	<5	R	<10
	5/03			<12	7.2	<5	<5	<10	<1,000	<5	<5	1 J	<5
	10/03			· <12	6 , 6, 4, 4	<5	<5	<10	<1,000	<5 ·	0.6 J	<5	<5
	6/04			6 J	3 J 🖓	<10	<10	<20	<1,000	<10	<5	<্য	<10
TW-02 ^F	12/96	363.3	353.3	53,	10	17.	16	65	<1,000	585 D.S.	15;900:JD	3,920 D	42,449 D
(Replaced by TW-02R) ^N	9/98			<500 J	<500 J	<500 J	<500 J	~53,000	5,000	300 J	38,000 D	61;000 D	86:000 DF
(Replaced by TW-02RR)	2/99			<1,000	<1,000	190 J 🕻	<1,000	150 J	14,000JN	<1,000	83,000 D	7,900 × 1/	14,000 B
	7/99			630	37	240 J.**		150	<1,000	55.45	<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	2'64,000 D	3,900	13,000
	9/00			🔍 190 J	28 J	95 J ⁹	35 J 😪	× 160 J	<1,000	6 J	79,000	<10,000	390 J
· · · · ·	3/01			81	19	68 2	28.0.	130	<1,000	<10	67,000 D	650 J	400 D
	9/01			57	. 25	70	31	140	<1,000 J	<20	63,000 D	32	48 B
	4/02			240	19	65	.23	96	<1,000	<5	1,090,000 D	<5,300	14
•	10/02			110 J	15	19	23	65	<1,000	<10	80;000 D	10 J	<10
	5/03			240	.30	130	. 49	226	<1,000	<5	160,000 D	230	97
	10/03			68	28 ^k . j	75 Je-	ব	<10	<1,000	2 J	92,000 D	<260	91
	6/04			140 J	19 J	39/J	31 J.	111.1	<1.000	<10 J	82.000	<5.200	4.J

Table 3

59	Sampling	Screen Elev.	(ft. AMSL)				Ethyl-		5. S. S. S. S.	Trichloro-	1. X	N Nadimethyla	Methylana
Monitoring Well	Date	Тор	Bottom	Acetones	Benzene	Toluene	- benzene -≥	Xylene	Methanol	ethene	Aniline	aniline	Chloride
PZ-4D	11/89	350.8	345.9	<100	<1	<1	<1	<1	<1,000	<i< td=""><td><10</td><td><10</td><td><1</td></i<>	<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
4	8/95			<1,000	<5	<5	<5	<5	<1,000	<5	<5	0.8 J	<5
	10/95			NA	<5	<5 <i>.</i>	<5	<5	NA	<5	<5	<10	<5
	8/96			<10	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	8/97			<10	<10	<10	<10	<10	<1,000	<10	<6	<12	<10
	2/99			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10 J
	3/00			<10	<10	<10	<10	<10	<1,000 J	<10	<5	<10	<10
	3/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
	4/02			<10	<5	<5	<5	<10	<1,000	<5	<5	<5	<5
	5/03			<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
	6/04			<25	<10	<10	<10	<20	<1,000	.<10	<5	<5	<10
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	<ì	<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) ^K	<5 (<5) ^K	<5
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5 ^L	<5 ^L	<10
	5/03		·	<12	<5	<5	<5	<5	<1,000	<5	<5	<5	<5
the second s	6/04			<25	<10	<10	<10	<20	<1,000	<10	<\$	ব	<10
PZ-5D	11/89	353.5	348.6	<100	. <1	<1	<1	<1	<1,000	<1	<10	<10	<1
	12/94			<10	<5	<5	<5 ·	<5	<200	<5	<5	<10	<5
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5 ^H	<10	<12
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000	<10 J	<10	<10	<10 J
	9/00			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10 J	<10 J	<10	<10 J
	9/01			<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10 .
	10/02			<25 J	<10	<10	<10	<20 J	<1,000	<10	<5 ^L	<5 ^L	<10
	10/03	*		<12	<5	<5	<5	<10	<1,000	<5	46	<5	<5
	6/04			<25	<10	<10	<10	: <20	<1,000	.<10	<5	<5	<10

Table 3

Monitoring Well	Sampling Date	Screen Elev Top	(ft. AMSL) Bottom	Acetone	Benzene	• Tolüene 1	Ethyl- benzene	Xylene	* Méthanol	Trichloro- ethene	Aniline	N:N-dimethyl-	Methylene Chloride
PZ-5S	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	<\$	<10	<5
	2/96			<1,000	<10	<10	<10	<10	<1,000	<10	<5	<10	<10
	2/97			5 J	<10	<10	<10	<10	<1,000	. <10	<5	<10	<10
	9/98			<10	<10	<10	<10	<10	<1,000	<10	<5 ^H	<10	<12
	6/99			<10 J	<10	<10	<10	<10	<1,000	<10	<10 J	<10 J	<10 J
	7/99			<10 J	<10 J	<10 J	<10 J	<10 J	<1,000 J	<10́ 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 ^L	<5 ^L	<10
	10//03			<12	<5	<5	<5	<10	<1,000	<5	<5 .	<5	<5
PZ-85 ⁰	9/98	362.6	357.7	<10	<10	<10	<10	<10	<1,000	<10	<10	<10	<10
PZ-11D ^C	11/89	352.09	347.19	<100	<1	<1	<i< td=""><td><1</td><td><1,000</td><td><1</td><td><11</td><td><11</td><td><1</td></i<>	<1	<1,000	<1	<11	<11	<1
PZ-11S ^C	11/89	359.09	354.19	<100	<1	<1	[`] <1	<1	<1,000	<1	<11	<11	<1
PZ-12D ^C	11/89	350	345.1	<100	<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	<1,000	<1	<10	<10	<1
PZ-12S ^C	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	0	6	<1	<10	<10	5
	11/92			<100	<1	<1	<1	Q	<1,000	<1	<10	<10	<1
PZ-13D ^F	11/89	349.4	344.4	<100	<1	<1	<1	<1	<1,000	<1	<11	<11	<1
PZ-13S ^F	11/89	359.5	354.5	<100	<1	2	<1	2	<1,000	.<1	<11	<11	<1
NYSDEC Groundwater Standards (Part 700)				50	1	5	5	5	NA	5	5	1	5

Summary of Historic Groundwater Monitoring Data

McKesson Envirosystems Former Bear Street Facility Syracuse, New York

General Notes:

- 1. Concentrations are presented in micrograms per liter (ug/L), which is equivalent to parts per billion (ppb).
- 2. Compounds detected are indicated by bold-faced type.
- 3. Detections exceeding New York State Department of Environmental Conservation (NYSDEC) Groundwater Standards (Part 700) are indicated by shading.
- 4. Replacement wells for MW-6, MW-8, MW-9, MW-10, MW-11, and MW-12D were installed 8/95.
- 5. Replacement wells for MW-17, MW-24S, MW-24D, and TW-02 were installed 11/97 12/97.
- 6. The laboratory analytical results for the duplicate sample collected from monitoring well MW-23S during the 7/99 sampling event, indicated the presence of methanol at 5.1 mg/l. 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-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. Replacement wells for MW-8S and TW-02R were installed 8/04.
- 9. 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 percent. This well was 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.
- C = Wells/piezometers MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12D, PZ-11D, PZ-11D, PZ-12D, and PZ-12S were abandoned during OU No.1 soil remediation activities (1994).
- F = 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.
- ^G = Piezometer PZ-8S was decommissioned 8/2000.
- 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.
- ¹ 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 690 ug/l.
- K = 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.
- L MW-17R, MW-18, MW-19, MW-23S, MW-24DR, MW-24SR, 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.
- M = 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.
- [№] = Wells MW-8S, MW-8D, and TW-02R were abandoned 8/04.

Abbreviations:

AMSL = Above Mean Sea Level (NGVD of 1929) NA = Not available. ND = Not detected.

NS = Not sampled.

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.
- IN = 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.
- R = The sample results were rejected.

Long-Term Hydraulic, Biological, and COC Process Control Monitoring Schedule

McKesson Envirosystems Former Bear Street Facility Syracuse, New York

Monitoring Location	Annual Sampling Schedule						
	First Sampling Event	Second Sampling Event					
Upgradient							
MW-1	B1, B2, C	B1, B2, C					
MW-3S	B1, B2, C	B1, B2, C					
MW-3D	Н	Н					
Area 1	•						
TW-01	B1, B2, C	B1, B2, C					
MW-6D	н	н					
MW-9S	B1, B2, C	B1, B2, C					
MW-9D	Н	Н					
MW-31	B1, B2, C	B1, B2, C					
MW-32	B1, B2, C	B1, B2, C					
MW-33	B2, C	B2, C					
PZ-F	Н	Н					
PZ-G	Н	Н					
PZ-HR	Н	Н					
PZ-P	Н	Н					
PZ-Q	Н	Н					
PZ-R	Н	Н					
PZ-S	Н	Н					
Area 2							
TW-02R	B1, B2, C	B1, B2, C					
PZ-9D	Н	Н					
MW-34	B1, B2, C	B1, B2, C					
MW-35	B1, B2, C	B1, B2, C					
MW-36	B2, C	B2, C					
PZ-I	Н	Н					
PZ-J	Н	Н					
PZ-T	Н	Н					
PZ-U	Н	H					
PZ-V	Н	Н					
PZ-W	Н	Н					

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Long-Term Hydraulic, Biological, and COC Process Control Monitoring Schedule

McKesson Envirosystems Former Bear Street Facility Syracuse, New York

Monitoring Logistion	Sampling Schedule						
Monitoring Location	First Sampling Event	Second Sampling Event					
Area 3	e here and a second						
MW-8S	B1, B2, C	B1, B2, C					
MW-8D	Н	Н					
MW-27	B1, B2, C	B1, B2, C					
MW-28	B1, B2, C	B1, B2, C					
MW-29	B2, C	B2, C					
MW-30	B2, C	B2, C					
PZ-A	Н	Н					
PZ-B	н	Н					
PZ-C	Н	Н					
PZ-D	Н	Н					
PZ-E	H ··· ·	Н					
PZ-K	Н	Н					
PZ-L	Н	Н					
PZ-M	Н	H					
PZ-N	H .	Н					
PZ-O	Н	Н					
MW-11S	Н	Н					
MW-11D	Н	H ′					
Downgradient Perimeter M	onitoring Locations						
MW-17R	С	C ^a					
MW-18	С, Н	С, Н					
MW-19	С, Н	С, Н					
MW-23I	С, Н	С, Н					
MW-23S	С, Н	С, Н					
MW-24SR	Н	С, Н					
MW-24DR	Н	Ç, H					
MW-25S	C, H	C, H					
MW-25D	C, H	H					
PZ-4S	С						
PZ-4D	C, H	Н					
PZ-5S		С					
PZ-5D	Н	С, Н					

Long-Term Hydraulic, Biological, and COC Process Control Monitoring Schedule

McKesson Envirosystems Former Bear Street Facility Syracuse, New York

Notes:

- 1. H = Hydraulic Monitoring (Groundwater Level Measurements).
- 2. B1 = Biological Monitoring for Poly-b-hydroxy alkanoate (PHA) and Phospholipid Fatty Acid (PLFA).
- 3. B2 = Biological Monitoring for Common Biological Indicators and permanent gases including nitrate, total/dissolved iron, total/dissolved manganese, sulfate/sulfide, nitrogen, carbon dioxide, methane, potassium, ortho-phosphate, and ammonia.
- 4. C = Monitoring for the Chemicals of Concern (COCs).
- 5. The hydraulic monitoring identified in this table was conducted on a quarterly basis for the first year of the long-term process control monitoring program, and has been/will be conducted on a semi-annual basis thereafter. The hydraulic monitoring also includes measuring the conductivity of groundwater recovered from Area 3 from a sampling port located before the equalization tank.
- 6. Field groundwater parameters including pH, temperature, conductivity, dissolved oxygen (DO), and oxidation/reduction potential (ORP) are measured during each biological sampling event.
- 7. Each of the monitoring wells and piezometers used for hydraulic, biological and COC monitoring during the semi-annual monitoring event are checked for the presence (if any) of non-aqueous phase liquid (NAPL).
- 8. Based on the results obtained, the scope and/or the frequency for the hydraulic, biological, and/or COC components of the longterm process control monitoring program, as detailed herein, may be modified. Any modifications would be made in consultation with the New York State Department of Environmental Conservation (NYSDEC).
- 9. This table is based on the NYSDEC-approved Operation and Maintenance (O&M) Plan (BBL, Revised August 1999), including the NYSDEC-approved December 29, 1999 Addendum.
- 10. Piezometers PZ-8S/PZ-8D were identified in the O&M Plan to be sampled during the long-term process control monitoring program; however, as presented in the August 2000 Biannual Process Control Monitoring Report, these piezometers were damaged and no longer needed for the process control monitoring program. These piezometers were abandoned in August 2000.
- 11. As presented in the August 2000 *Biannual Process Control Monitoring Report*, monitoring well MW-17R was identified in the *O&M Plan* to be sampled only during the first biannual monitoring event; however, because benzene has been detected at concentrations slightly exceeding the NYSDEC Groundwater Quality Standard since the March 2000 sampling event, this well was also sampled during the second biannual monitoring event conducted during 2000 and 2001 (i.e., September 2000 and September 2001).
- 12. Monitoring wells MW-24SR and MW-24DR were additionally sampled for N,N-dimethylaniline and aniline on June 18, 2002 because N,N-dimethylaniline and/or aniline was detected at nearby downgradient perimeter monitoring locations during the April 2002 sampling event.
- 13. Monitoring well PZ-4S was additionally sampled for COCs on October 10, 2002 because aniline was detected at this location during the April 2002 sampling event.
- 14. Monitoring wells MW17R, MW-18, MW-19, MW-23I, MW-23S, MW-24SR, MW-24DR, MW-25S, PZ-4S, PZ-5S, and PZ-5D were additionally sampled for N,N-dimethylaniline and aniline on January 20, 21, and 23, 2003 because the October 2002 N,N-dimethylaniline and aniline results for these locations were rejected during the validation process due to matrix spike and matrix spike duplicate recoveries below control limits.
- 15. Monitoring locations MW-24SR and PZ-5D were additionally sampled for COCs during the June 2004 COC biannual sampling event, because there were aniline detections at these locations during the October 2003 sampling event.

Revised Long-Term Hydraulic and COC Process Control Monitoring Schedule

Monitoring Location	Annual Sampling Schedule							
Monitoring Pocation	First Sampling Event	Second Sampling Event						
Upgradient								
MW-1	С							
MW-3S	С							
MW-3D	Н	Н						
Area 1								
MW-6D	Н	н						
MW-9S	С							
MW-9D	Н	Н						
MW-31	С	С						
MW-32	С	С						
MW-33	C	С						
PZ-F	Н	Н						
PZ-G	· H	Н						
PZ-HR	Н	Н						
PZ-P	Н	Н						
PZ-Q	Н	Н						
PZ-R	Н	н						
PZ-S	Н	Н						
Area 2								
TW-02RR	С	С						
PZ-9D	н	Н						
MW-34	С							
MW-35	С	С						
MW-36	С	C ·						
PZ-I	Н	Н						
PZ-J	Н	Н						
PZ-T	Н	Н						
PZ-U	Н	Н						
PZ-V	Н	Н						
PZ-W	Н	Н						

Revised Long-Term Hydraulic and COC Process Control Monitoring Schedule

McKesson Enviroystems Former Bear Street Facility Syracuse, New York

Monitoring Location	Sampling Schedule							
monitor mg Docation	First Sampling Event	Second Sampling Event						
Area 3								
MW-8SR	С	С						
MW-27	С	C						
MW-28	С	С						
MW-29	С							
MŴ-30	С							
PZ-A	Н	Н						
PZ-B	Н	Н						
PZ-C	Н	Н						
PZ-D	Н	Н						
PZ-E	Н	Н						
PZ-K	Н	Н						
PZ-L	Н	н						
PZ-M	Н	н						
PZ-N	Н	Н						
PZ-O	Н	Н						
MW-11S	Н	Н						
MW-11D	Н	Н						
Downgradient Perimeter N	Ionitoring Locations							
MW-17R	С	С						
MW-18	С, Н	С, Н						
MW-19	С, Н	С, Н						
MW-23I	С, Н	С, Н						
MW-23S	C, H	C, H						
MW-24SR	Н	C, H						
MW-24DR	Н	C, H						
MW-25S	C, H	C, H						
MW-25D	C, H	Н						
PZ-4S	С							
PZ-4D	C, H	Н						
PZ-5S		С						
PZ-5D	Н	С, Н						
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Revised Long-Term Hydraulic and COC Process Control Monitoring Schedule

McKesson Enviroystems Former Bear Street Facility Syracuse, New York

Notes:

- 1. H = Hydraulic Monitoring (Groundwater Level Measurements).
- 2. C = Monitoring for the Chemicals of Concern (COCs).
- 3. The hydraulic monitoring identified in this table will be conducted on a semi-annual basis. The hydraulic monitoring also includes measuring the conductivity of groundwater recovered from Area 3 from a sampling port located before the equalization tank.
- 4. Field groundwater parameters including pH, temperature, conductivity, dissolved oxygen (DO), and oxidation/reduction potential (ORP) are measured during each COC sampling event.
- 5. Each of the monitoring wells and piezometers used for hydraulic and COC monitoring during the semi-annual monitoring event are checked for the presence (if any) of non-aqueous phase liquid (NAPL).
- 6. Based on the results obtained, the scope and/or the frequency for the hydraulic and/or COC components of the long-term process control monitoring program, as detailed herein, may be modified. Any modifications would be made in consultation with the New York State Department of Environmental Conservation (NYSDEC).
- 7. This table is based on the NYSDEC-approved *Operation and Maintenance (O&M) Plan* (BBL, Revised August 1999), including the NYSDEC-approved December 29, 1999 Addendum with the modifications detailed in the October 2003 *Biannual Process Control Monitoring Report* and reiterated in the June 2004 *Biannual Process Control Monitoring Report*.
Figures











NOTES:

1. Ratio above stacked bar graph is PHA to PLFA. PHA/PLFA ratio above 0.2 suggests unbalanced growth of the microbial community.

2. * = Ratio is half the PHA detection limit to PLFA.

3. Start up operation began on June 10, 1998.

4. Initial discrete RAMM injections were conducted from August 5 to August 12, 1998.

5. MW-9S was not scheduled to be sampled during the short-term process control monitoring program, but was sampled in July 1999 (week 52) to provide additional information regarding Area 1. This well is part of the long-term process control monitoring program.

6. Additional discrete RAMM injections were conducted on August 28 through August 30, 2000 and on August 27 through August 30, 2001.



12/30/03 SYR-D85-DJH 26003190/26003n03.cdr





NOTES:

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1. Sum w7t/w7c = The sum of 16:1w7t/16:1w7c and 18:1w7t/18:1w7c.

2. The ratios 16:1w7t/16:1w7c and 18:1w7t/18:1w7c show the effect of toxicity or starvation on the microbial community.

- The range (for the sum w7t/w7c) is generally between 0.1 (healthy) to 0.6 (starved). A higher ratio indicates increased stress. 3. MW-9S was not scheduled to be sampled during the short-term process control monitoring program, but was sampled in July 1999 (week 52)
 - to provide additional information regarding Area 1. This well is part of the long-term process control monitoring program.



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NOTES:

- 1. The two ratios: cy17:0/16:1w7c and cy19:0/18:1w7c express a growth rate of the microbial community. The sum of these two ratios falls within the range of 0.1 (log phase) to 5.0 (stationary phase). A lower ratio suggests a higher turnover rate.
- 2. MW-9S was not scheduled to be sampled during the short-term process control monitoring program, but was sampled in July 1999 (week 52) to provide additional information regarding Area 1. This well is part of the long-term process control monitoring program.

09/07/04 SYR-D85-DJH 26003190/26003n02.cdr



cy19:0/18:1w7c







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NOTES:

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- 1. The two ratios: cy17:0/16:1w7c and cy19:0/18:1w7c express a growth rate of the microbial community. The sum of these two ratios falls within the range of 0.1 (log phase) to 5.0 (stationary phase). A lower ratio suggests a higher turnover rate.
- PZ-8S was not sampled in July 1999 and in March 2000 because this piezometer was damaged. This piezometer was decommissioned in August 2000.

cy19:0/18:1w7c cy17:0/16:1w7c

09/08/04 SYR-D85-DJH 26003190/26003n06.cdr







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NOTE:

 The two ratios: cy17:0/16:1w7c and cy19:0/18:1w7c express a growth rate of the microbial community. The sum of these two ratios falls within the range of 0.1 (log phase) to 5.0 (stationary phase). A lower ratio suggests a higher turnover rate.
 MW-8S was inadvertently not sampled during the October 2003 sampling event.



09/08/04 SYR-D85-DJH 26003190/26003n07.cdr





LEGEND:

- . UTILITY POLE
- . CATCH BASIN
- N · PETROLEUM PIPE LINE MARKER
- GAS LINE MARKER
- SV . SEWER VENT
- HYDRANT
- WATER VALVE
- MANHOLE
- ---- PROPERTY LINE

MW-19 GROUNDWATER MONITORING WELL

-A D PIEZOMETER

PZ-85 & PZ-60∭

BOUNDARY OF IMPACTED AREA

GROUNDWATER INFILTRATION TRENCH

DECOMMISSIONED PIEZOMETERS

AREA OF RELATIVELY HIGHER

-SAMPLE IDENTIFICATION

<u>Mw-35</u>											
Date	9/98	7/99	3/00	9/00	3/01	9/01	4/02	10/02	5/03	10/03	6/04
Benzene	<10	0.7 J	<10	<10 J	40	<10	a	1 0	0	9	<10
Aniline	8 J	31	<10	<10	<10	<10	31	2 J	1,000	43	30
N,N-dimethylantine	5 J	4 J	2 J	3 J	<10	2 J	4 J	R	<100	ð	43
Acetone	<10	<10	<10 J	40 J	ę	<10	<13	25	<12	5 J	25

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. 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. AS DETAILED IN THE BIANNUAL REPORT, THESE MONITORING WELLS WERE NOT RESAMPLED.





L: ON=*, OFF=REF* P: PAGESEST/PLT-BL 11/18/04 SYR-RCB LAF KLS 28003190/28003C02.DWG

LEGEND:

- PROPERTY LINE
- MW-19 & GROUNDWATER MONITORD PZ-A 🖶 PIEZOMETER

BIANNUAL DOWNGRADIENT PERIMETER GROUNDWATER MONITORING LOCATION

W-265 O PUMPING WELL

BOUNDARY OF IMPACTED AREA

 GROUNDWATER WITHDR TRENCH
 GROUNDWATER INFILTR
 PIPING TO BUILDING
 PIPING FROM BUBLOING

THORAWAL

FILTRATIO

ر معروبی است. ا	AREA OF RELATIVELY HIGHER CONCENTRATIONS OF COC:

C SAMPLE	IDENTIFICATIO
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MW-2	5	
ð	8/95	10/95
tone	<1,000	NA
hloroethene	G.	31
-dimethylaniline	1 J	<0
Ine	c S	4

CONCENTRATION (ppb)

NOTES:

- 1. REPLACED MONITORING WELLS ARE IDENTIFIED WITH AN "R" (a.g., MW-240R).
- 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 COCA ARE PRESENTED ON THIS FIGURE.
- 6. < = COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
- THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER THE SOCIATED 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 9/88 SAMPLING EVENT FOR MW-18, MW-19, MW-235, MW-245R, MW-247R, MW-247R, MW-24, PZ-55 AND PZ-50 WERE ORTANED IN 12/98, BECAUSE THE 9/88 RESULTS WERE REJECTED DUE TO LABORATORY ERROR.
- 15. MW-3S WAS RESAMPLED ON 11/8/01 DUE TO ANULNE DETECTION DURING 9/2001 SAMPLING EVENT AT A CONCENTRATION OF 680 PPB. ANULNE WAS DETECTED ON 11/8/01 AT A CONCENTRATION OF 68 PPB.
- ANILME WAS DETECTED ON 11/6/01 AT A CONCENTRATION OF BUPPE. 5. $\infty = MONTORING WELLS MW-17R, MW-18, AND PZ-4S WERE$ RESAMPLED FOR ANILME AND NA-DIMETHYLANILME ON JUNE 18, 2002DUE TO NA-DIMETHYLANILME AND / OR ANLINE CETECTION AT THESEPERMIETER MONITORING LOCATIONS DURING THE APRIL 2002 SAMPLINGEVENT, THE RESULTS OF THIS RESAMPLING EVENT ARE SHOWN INPARENTHESIS, MONITORING WELLS MW-24SR AND NW-24OR MORE ALSOSAMPLED ON JUNE 18, 2002 FOR ANALYSIS OF ANILME ANDNA-DIMETHYLANILME, AS OCTALED. IN THE BIANNUAL REPORT, THESECOMPOUNDS WERE NOT DETECTED.
- 17. ^ = THE ANTLINE AND N.N-DIMETHYLANILINE DATA FOR THE 10/02 SAMPLING EVENT FOR MW-17R, MW-18, MW-19, MW-23S, MW-23S, MW-24SR, WW-24SR, MW-25S, P2-4S, P2-5S, AND P2-25S WERE OBTAINED IN 1/03, BECAUSE THE 10/02 RESULTS WERE RELECTED DUE TO MATRIX SPIKE AND MATRIX SPIKE DUPLICATE RECOVERES BELOW CONTROL LIMITS.
- 3. THE 10/02 SAMPLING EVENT N.N.-DIMETHYLANILINE DATA FOR MW-3S, MW-28 AND MW-29 AND THE 10/02 SAMPLING EVENT ANLINE AND N.N-DIKETHYLANILINE DATA FOR MW-30 WERE RELECTED DUE TO MATRIX SPICE AND MATRIX SPICE DUPUCATE RECOVERIES BELOW CONTROL LIMITS. AS DETAILED IN THE BIANNUAL REPORT, THESE MONITORING WELLS WERE NOT RESAMPLED.
- 19. THE 0/04 SAMPLING EVENT ANULNE 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.

120' GRAPHIC SCALE 240'



SUMMARY OF AREA 3 HISTORIC **GROUNDWATER MONITORING DATA**



@PZ-9S & PZ-9D













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92.92 State 1.15



Attachments

Attachment 1

Waste Characterization Data







Environmental Laboratories, Inc. 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 30, 2004

FOR:

Attn: Ms. Christie Sobal **Blasland & Bouck Engineers, PC** 6723 Towpath Road Box 66 Syracuse, NY 13214-0066

Sample Information Matrix: SOIL Location Code: BLASLAND **Rush Request: P.O.#:** 26001003

Custody Infor	Date		
Collected by:	TH	08/19/04	
Received by:	KJB	08/20/04	
Analyzed by:	see "By" below		

10:56

Time

13:15

Laboratory Data

SDG I.D.: GAF79936 Phoenix I.D.: AF79936

MCKESSON BEAR ST AREA 1/2 ROLLOFF Client ID:

Parameter	Result	RL	Units	Date	Time	By	Reference
TCLP Silver	BDL	0.01	mg/L	08/24/04		EK	E1311/SW6010
TCLP Arsenic	0.014	0.01	mg/L	08/24/04	•	EK	E1311/SW6010
TCLP Barium	1.4	0.01	mg/L	08/24/04		EK	E1311/SW6010
TCLP Cadmium	BDL	0.005	mg/L	08/24/04		EK	E1311/SW6010
TCLP Chromium	BDL	0.01	mg/L	08/24/04		EK	E1311/SW6010
TCLP Lead	BDL	0.015	mg/L	08/24/04		EK	E1311/SW6010
TCLP Selenium	BDL	0.05	mg/L	08/24/04		EK	E1311/SW6010
TCLP Mercury	BDL	0.001	mg/L	08/24/04		KMC	E1311/E245.1
Percent Solid	75		%	08/21/04		C/D	E160.3
Corrosivity	Negative	NONE	None	08/20/04		CD	S423/E150.1
Flash Point	>200	200	degree F	08/23/04		JR	SW846 - 1010
Ignitability	Passed	140	deg F	08/23/04		JR	SW846 - 1010
pH	8.33	0.10	pH Units	08/20/04	23:00	CD	E150.1/SW9045
Reactivity Cyanide	BDL	1.0	mg/Kg	08/21/04		ME	SW 846-7.3
Reactivity Sulfide	BDL	20	mg/Kg	08/21/04		ME	SW846-7.3
Reactivity	Negative			08/21/04		ME	SW 846-7.3
Soil Extraction for PCB	Completed			08/21/04		AB	3545/3550
TCLP Digestion Mercury	Completed			08/22/04		Y	E1311/7470
TCLP Extraction Herbicides	Completed			08/24/04		X/P	EPA 1311
TCLP Extraction Metals	Completed			08/20/04		TH	EPA 1311
TCLP Extraction Pesticides.	Completed			08/23/04	•	R/X	EPA 1311
TCLP Extraction Semi-Vol	Completed			08/23/04		R/X	EPA 1311
TCLP Extraction Volatiles.	Completed			08/24/04		R/H	EPA 1311
TCLP Metals Digestion	Completed	,		08/21/04		TH	SW846 - 3005

Client ID: MCKESSON	BEAR ST AREA 1	/2 ROLLC)FF	Phoenix I.D.: AF79936			
Parameter	Result	\mathbf{RL}	Units	Date	Time	By	Reference
Polychlorinated Bipl	nenyls						
PCB-1016	ND	400	ug/Kg	08/25/04		ЛН	SW 8082
PCB-1221	ND	400	ug/Kg	08/25/04		JH	SW 8082
PCB-1232	ND	400	ug/Kg	08/25/04		ЛН	SW 8082
PCB-1242	ND	400	ug/Kg	08/25/04		ЛН	SW 8082
PCB-1248	, ND	400	ug/Kg	08/25/04		ЛН	SW 8082
PCB-1254	ND	400	ug/Kg	08/25/04		JH	SW 8082
PCB-1260	ND	400	ug/Kg	08/25/04		л	SW 8082
PCB-1262	ND	400	ug/Kg	08/25/04		Л	SW 8082
PCB-1268	ND	400	ug/Kg	08/25/04		Л	SW 8082
QA/QC Surrogates	-						
% DCBP (Surrogate Rec)	93		%	08/25/04		JH	SW 8082
% TCMX (Surrogate Rec)	75		%	08/25/04		ЛН	SW 8082
TCLP Herbicides	•						
2.4.5-TP (Silvex)	ND	1.0	ug/L	08/26/04		KCA	SW8151
2,4-D	ND	5.0	ug/L	08/26/04		KCA	SW8151
QA/QC Surrogates							
% DCAA (Surrogate Rec)	41		%	08/26/04		KCA	SW8151
TCI P Posticidos	·						
	NTD	0.1	ng/I	08/95/04		RCA	SW 9091
4,4 -DDE	ND	0.1	ug/L	08/25/04		KCA	SW 8081
4,4'-DDT	ND	0.1	ug/L	08/25/04		RCA	SW 8081
-,DD1 a-BHC	ND	0.1	ug/L	08/25/04		KCA	SW 8081
Aldrin	ND	0.05	ug/L	08/25/04		RCA	SW 8081
h-BHC		0.05	ug/L	08/25/04		KCA	SW 8081
Chlordana		0.05	ug/L	08/25/04		KCA	SW 8081
-BHC	ND	0.05	ug/L	08/25/04		RCA	SW 8081
Dieldrin		0.05	ug/L	08/25/04		RCA	SW 8081
Endoculfan I		0.1	ug/L	08/25/04	•	N CA	SW 8081
Endoculfan II	ND	0.05	ug/L	08/25/04		KCA	SW 8081
Endocultan fi		0.1	ug/L	08/25/04		RCA	SW 8081
Enduin		0.1	ug/L	08/23/04	•	NCA	SW 8081
Endrin Aldabuda	ND	0.1	ug/L	08/25/04		KCA	SW 8081
r BHC (Lindens)	ND	0.1	ug/L	08/25/04		KCA	SW 8081
Gontechler	ND	0.05	ug/L	08/25/04		KCA	SW 8081
Heptachlor	ND	0.05	ug/L	08/25/04		KCA	SW 8081
		0.05	ug/L	08/25/04	,	KCA	SW 8081
		0.2	ug/L	08/25/04		KCA	SW 8081
loxapnene	ND	1.0	ug/L	08/25/04		KCA	SW 8081
<u> FCLP Volatiles</u>							
,1-Dichloroethylene	ND	50	ug/L	08/27/04		RM	SW 8260
,2-Dichloroethane	ND	50	ug/L	08/27/04		RM	SW 8260

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	Decult	DI	TImita	Dete	Time Dr		Deference	
Parameter	Result		Units	Date	Time	Бу	Kelerence	
Benzene	ND	50	ug/L	08/27/04		RM	SW 8260	
Carbon tetrachloride	ND	50	ug/L	08/27/04		RM	SW 8260	
Chlorobenzene	ND	50	ug/L	08/27/04		RM	SW 8260	
Chloroform	ND	50	ug/L	08/27/04		RM	SW 8260	
Methyl ethyl ketone	ND	50	ug/L	08/27/04		RM	SW 8260	
Tetrachloroethene	ND	50	ug/L	08/27/04		RM	SW 8260	
Trichloroethene	ND	50	ug/L	08/27/04		RM	SW 8260	
Vinyl chloride	ND	50	ug/L	08/27/04		RM	SW 8260	
QA/QC Surrogates								
%4-Bromofluorobenzene (Surrogate)	93		%	08/27/04		RM	SW 8260	
TCLP Acid/Base-Neutral	-							
1,4-Dichlorobenzene	ND	170	ug/L	08/27/04		DRC	SW 8270	
2,4,5-Trichlorophenol	ND	170	ug/L	08/27/04		DRC	SW 8270	
2,4,6-Trichlorophenol	ND	170	ug/L	08/27/04		DRC	SW 8270	
2,4-Dinitrotoluene	ND	170	ug/L	08/27/04		DRC	SW 8270	
2-Methylphenol (o-Cresol)	ND	170	ug/L	08/27/04		DRC	SW 8270	
3&4-Methylphenol (m&p-Cresol)	ND	170	ug/L	08/27/04		DRC	SW 8270	
Hexachloro-1,3-butadiene	ND	170	ug/L	08/27/04		DRC	SW 8270	
Hexachlorobenzene	ND	170	ug/L	08/27/04		· DRC	SW 8270	
Hexachloroethane	ND	170	ug/L	08/27/04		DRC	SW 8270	
Nitrobenzene	ND	170	ug/L	08/27/04		DRC	SW 8270	
Pentachlorophenol	ND	850	ug/L	08/27/04		DRC	SW 8270	
Pyridine	ND	170	ug/L	08/27/04		DRC	SW 8270	
QA/QC Surrogates								
% 2,4,6-Tribromophenol (Surrog Rec)	38		%	08/27/04		DRC	SW 8270	
% 2-Fluorobiphenyl (Surrogate Rec)	85		%	08/27/04		DRC	SW 8270	
% 2-Fluorophenol (Surrogate Rec)	Interference		. %	08/27/04		DRĊ	SW 8270	
% Nitrobenzene-d5 (Surrogate Rec)	76		%	08/27/04		DRC	SW 8270	
% Phenol-d5 (Surrogate Rec)	9.5		%	08/27/04		DRC	SW 8270	
% Terphenyl-d14 (Surrogate Rec)	105		%	08/27/04		DRC	SW 8270	

Comments:

ND=Not detected BDL = Below Detection Limit RL=Reporting Limit

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

Phyllis Shiller, Laboratory Director August 30, 2004





Environmental Laboratories, Inc. 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 30, 2004

FOR: Attn: Ms. Christie Sobal Blasland & Bouck Engineers, PC 6723 Towpath Road Box 66 Syracuse, NY 13214-0066

Sample InformationMatrix:SOILLocation Code:BLASLANDRush Request:26001003

Custody Information					
Collected by:	TH				
Received by:	KJB				
Analyzed by:	see "By" below				

<u>Date</u>	Time
08/19/04	14:30
08/20/04	10:56

Laboratory Data

SDG I.D.: GAF79936

Phoenix I.D.: AF79937

Client ID: MCKESSON BEAR ST AREA 3 ROLLOFF

Parameter	Result	RL	Units	Date	Time	By	Reference
TCLP Silver	BDL	0.01	mg/L	08/24/04		EK	E1311/SW6010
TCLP Arsenic	BDL	0.01	mg/L	08/24/04		EK	E1311/SW6010
TCLP Barium	1.33	0.01	mg/L	08/24/04		EK	E1311/SW6010
TCLP Cadmium	BDL	0.005	mg/L	08/24/04		EK	E1311/SW6010
TCLP Chromium	BDL	0.01	mg/L	08/24/04		EK	E1311/SW6010
TCLP Lead	BDL	0.015	mg/L	08/24/04		EK	E1311/SW6010
TCLP Selenium	BDL	0.05	mg/L	08/24/04		EK	E1311/SW6010
TCLP Mercury	BDL .	0.001	mg/L	08/24/04		KMC	E1311/E245.1
Percent Solid	75		%	08/21/04		C/D	E160.3
Corrosivity	7.28	NONE	None	08/20/04		CD	S423/E150.1
Flash Point	>200	200	degree F	08/23/04		JR	SW846 - 1010
Ignitability	Passed	140	deg F	08/23/04		JR	SW846 - 1010
pH	7.28	0.10	pH Units	08/20/04	23:00	CD	E150.1/SW9045
Reactivity Cyanide	BDL	1.0	mg/Kg	08/21/04		ME	SW 846-7.3
Reactivity Sulfide	BDL	20	mg/Kg	08/21/04		ME	SW846-7.3
Reactivity	Negative			08/21/04		ME	SW 846-7.3
Soil Extraction for PCB	Completed			08/21/04		AB	3545/3550
TCLP Digestion Mercury	Completed			08/22/04		Y	E1311/7470
TCLP Extraction Herbicides	Completed			08/24/04		X/P	EPA 1311
TCLP Extraction Metals	Completed		•	08/20/04		TH	EPA 1311
TCLP Extraction Pesticides.	Completed	•		08/23/04		R/X	EPA 1311
TCLP Extraction Semi-Vol	Completed			08/23/04		R/X	EPA 1311
TCLP Extraction Volatiles.	Completed		· .	08/24/04		R/H	EPA 1311
TCLP Metals Digestion	Completed		· .	08/21/04		TH	SW846 - 3005

Client ID: MCKESSON	BEAR ST AREA 3	ROLLOF	`F	-	Phoenix	I.D.:	AF79937
Parameter	Result	\mathbf{RL}	Units	Date	Time	By	Reference
Polychlorinated Bipl	nenyls						
PCB-1016	ND	400	ug/Kg	08/25/04		ЛН	SW.8082
PCB-1221	ND	400	ug/Kg	08/25/04		ЛН	SW 8082
PCB-1232	ND	400	ug/Kg	08/25/04		JH	SW 8082
PCB-1242	ND	400	ug/Kg	08/25/04		ЛН	SW 8082
PCB-1248	ND	400	ug/Kg	08/25/04		ЛН	SW 8082
PCB-1254	ND	400	ug/Kg	08/25/04		ж	SW 8082
PCB-1260	ND	400	ug/Kg	08/25/04		JH	SW 8082
PCB-1262	ND	400	ug/Kg	08/25/04		Л	SW 8082
PCB-1268	ND	400	ug/Kg	08/25/04		л	SW 8082
QA/QC Surrogates							
% DCBP (Surrogate Rec)	66		%	08/25/04		Л	SW 8082
% TCMX (Surrogate Rec)	35		%	08/25/04		ЛН	SW 8082
TCLP Herbicides							. .
2,4,5-TP (Silvex)	ND	1.0	ug/L	08/26/04		KCA	SW8151
2,4-D	ND	5.0	ug/L	08/26/04		KCA	SW8151
QA/QC Surrogates							· .
% DCAA (Surrogate Rec)	59		%	08/26/04		KCA	SW8151
TCLP Pesticides					·		
4,4' -DDD	ND	0.1	ug/L	08/25/04	• •	KCA	SW 8081
4,4' -DDE	ND	0.1	ug/L	08/25/04		KCA	SW 8081
4,4' -DDT	ND	0.1	ug/L	08/25/04		KCA	SW 8081
a-BHC	ND	0.05	ug/L	08/25/04		KCA	SW 8081
Aldrin	ND	0.05	ug/L	08/25/04		KCA	SW 8081
b-BHC	ND	0.05	ug/L	08/25/04		KCA	SW 8081
Chlordane	ND	0.3	ug/L	08/25/04		KCA	SW 8081
1-BHC	ND	0.05	ug/L	08/25/04		KCA	SW 8081
Dieldrin	ND	0.1	ug/L	08/25/04		KCA	SW 8081
Endosulfan I	ND	0.05	ug/L	08/25/04		KÇA	SW 8081
Endosulfan II	ND	0.1	ug/L	08/25/04		KCA	SW 8081
Endosulfan Sulfate	ND	0.1	ug/L	08/25/04		KCA	SW 8081
Endrin	ND	0.1	ug/L	08/25/04		KCA	SW 8081
Endrin Aldehyde	ND	0.1	ug/L	08/25/04		KCA	SW 8081
g-BHC (Lindane)	ND	0.05	ug/L	08/25/04		KCA	SW 8081
Heptachlor	ND	0.05	ug/L	08/25/04		KCA	SW 8081
Heptachlor epoxide	ND	0.05	ug/L	08/25/04		KCA	SW 8081
Methoxychlor	ND	0.2	ug/L	08/25/04		KCA	SW 8081
Foxaphene	ND	1.0	ug/L	08/25/04		KCA	SW 8081
<u>FCLP Volatiles</u>							
,1-Dichloroethylene	ND	50	ug/L	08/27/04		RM	SW 8260
.,2-Dichloroethane	ND	50	- ug/L	08/27/04	· .	RM	SW 8260

Daramatar	Recult	BI	Units	Date	Time	Bv	Reference
		ILL		Date	1 IIIIe	Бу	
Benzene	ND	50	ug/L	08/27/04		RM	SW 8260
Carbon tetrachloride	ND	50	ug/L	08/27/04		RM	SW 8260
Chlorobenzene	ND	50	ug/L	08/27/04		RM	SW 8260
Chloroform	ND	50	ug/L	08/27/04		RM	SW 8260
Methyl ethyl ketone	ND	50	ug/L	08/27/04		RM	SW 8260
Tetrachloroethene	ND	50	ug/L	08/27/04		RM	SW 8260
Trichloroethene	52	50	ug/L	08/27/04		RM	SW 8260
Vinyl chloride	ND	50	ug/L	08/27/04		RM	SW 8260
QA/QC Surrogates %4-Bromofluorobenzene (Surrogate)	93	· .	%	08/27/04	· .	RM	SW 8260
TCLP Acid/Base-Neutral	·						
1,4-Dichlorobenzene	ND	100	ug/L	08/27/04		DRC	SW 8270
2,4,5-Trichlorophenol	ND	100	ug/L	08/27/04		DRC	SW 8270
2,4,6-Trichlorophenol	ND	100	ug/L	08/27/04		DRC	SW 8270
2,4-Dinitrotoluene	ND	100	ug/L	08/27/04		DRC	SW 8270
2-Methylphenol (o-Cresol)	ND	100	ug/L	08/27/04		DRC	SW 8270
3&4-Methylphenol (m&p-Cresol)	ND	100	ug/L	08/27/04		DRC	SW 8270
Hexachloro-1,3-butadiene	ND	100	ug/L	08/27/04		DRC	SW 8270
Hexachlorobenzene	ND	100	ug/L	08/27/04		DRC	SW 8270
Hexachloroethane	ND	100	ug/L	08/27/04		DRC	SW 8270
Nitrobenzene	ND	100	ug/L	08/27/04		DRC	SW 8270
Pentachlorophenol	ND	500	ug/L	08/27/04		DRC	SW 8270
Pyridine	ND	100	ug/L	08/27/04		DRC	SW 8270
QA/QC Surrogates % 2,4,6-Tribromophenol (Surrog Rec)	106		%	08/27/04		DRC	SW 8270
% 2-Fluorobiphenyl (Surrogate Rec)	101		%	08/27/04		DRC	SW 8270
% 2-Fluorophenol (Surrogate Rec)	Interference		· %	08/27/04		DRC	SW 8270
% Nitrobenzene-d5 (Surrogate Rec)	62		%	08/27/04		DRC	SW 8270
% Phenol-d5 (Surrogate Rec)	3.5		%	08/27/04		DRC	SW 8270
% Terphenyl-d14 (Surrogate Rec)	7 9		%	08/27/04	••	DRC	SW 8270

Comments:

ND=Not detected BDL = Below Detection Limit RL=Reporting Limit

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director August 30, 2004

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PHC)H/N/	X			587 E	East N	/liddle	Turn	pike,	P.O.	Box 3	370, N	Manch	nester	, CT 0	6040				Data	Deliv Fax #	/er <u>y (c</u>	check	<u>one</u>):		
Environme	ental Labora	L 🕅	BEZ Inc	· .	I	Eail: s	ervice	e@ph	oenix	klabs. •	com	Fa	ax (86	64	5-0823	l I					Email	:					_
Rel			1110.	······			Clie	nt S	ervi	ices	(86	<u>(0)</u>	645-	8726	; 			· ·		For	mat:		Excel		Pdf		Jis Key
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	Client Sample - Inf	formation -	- Identifica	tion	·						7	7	7	7	7	77	7	-	7	<u></u>	1	1318	1	7	7	7	7
Sampler's Signature	1km_			Date <u>8</u>	<u>/19/04</u>	A F	naly Requ	sis est	/.												33	BISUIT		,×`.	JAN S	100	,ei ni
Matrix Code: DW=drinking water GW=groundwater	WW=wastewate	er S=soil/s A=air	solid O=o	ther					Y Y Y			1 OL		CLU CLU		1X				netran			AS IS	AS SOUTH	1500m		
Phoenix Sample #	Customer Sa Identificati	Imple on	Sample Matrix	Date Sampled	Time Sampled		Y	N.		Y X	, J	Ž,			A COL				18 ² 501 6	SOL SOL	Nel JOA	ALLER A		HI ON	NN OF		ST BOTTE
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- Hund Park			N	<u>/</u>	= <i>3</i>	19 [[<u> 14</u>	+L	0-6	24	2		Ы	2 Day	/s*			GW	Prote	ection					GW-2	2	
- l								+						3 Day	s*			GA	Mobil	ity					GW-3	3	
Comments, Special F	Requirements or Re	equiations:	<u>.</u>	·					<u> </u>					Stand Other	ard			IGB SW	Mobil Prote	ity ection					S-1 S-2		
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	¥ 4-3				· .	N.		5 (· .																	
	27. <u>12</u> .	1 14 18 3					к. ¹																				

Attachment 2

Waste Manifests and Bills of Lading



NON-HAZARDOUS	1. Generator's U	IS EPA ID No.	Manifest Doc. N	o. 2. Page	1			
	<u> </u>	<u></u>	10400	of	- 1			
3. Generator's Name and Mailing Address McKesson Corporation				Van	Rensse	lear a	nd Rear Stre	
1 Post Street, 32nd Floor San Francisco, CA, 94104			**	0		(400		
4. Generator's Phone (415) 983	- 7 5 9 8.	•		Syla		132	J4	
5. Transporter 1 Company Name		6. US EP/	ID Number	A. Tran	sporter's Pl	none	•	
7. Transporter 2 Company Name	• ~ · · · · · · · · · · · · · · · · · ·	1 NYD98 8. USEP/	076994 ID Number	B. Tran	sporter's P	71 hone	6 827-7200	
			<u></u>					
9. Designated Facility Name and Site Address		10. US EP/	ID Number	C. Faci	ity's Phone			
CWM Chemical Services, LLC 1550 Batmar Road, PO Bay 200								
Model City NY 14107		INYDOA	0 8 3 8 8 7			710	6 754-8231	
11. Waste Shipping Name and Description			<u>a a 3 6 6 /</u>	-24	12. Conta	ainers	13. Total	Τ
· · · · ·					No.	Туре	Quantity	<u> </u>
a. Non-regulated material							651	
(Soil and concrete)							25000	
b.	<u> </u>				-0-0-1	-C-M	<u>a 100</u> 2	1
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D. Additional Descriptions for Materials Listed Abo		<u> </u>		E. Hand	lling Codes	for Was	tes Listed Above	_
a.	С.				-			
b.	d.			h.			n I	
							.	
 Special Handling Instructions and Additional Infe INA7434 	ormation					WTS	#13744	
•						SR#	736780	,
<u>CB192</u>	2 							
16 GENERATOR'S CERTIFICATION. L certify the	materials described at	ove on this manifest are	not subject to federal requ	lations for re	norting prop	ar dienoe	al of Hazamous Wa	icto
Printed/Typed Name // /		Signature			porting prop		Month Day	,
TEAN IVITSING	. <u>L</u> .		Al-					1
17. Transporter 1 Acknowledgement of Receipt of M	Aaterials			·		<u></u>		_
Printed/Typed Name		Signature	han Min	mil			Month Day	51
18. Transporter 2 Acknowledgement of Receipt of N	Materials							
Printed/Typed Name		Signature					Month Day	
	· · · · · · · · · · · · · · · · · · ·							
19. Discrepancy Indication Space								
·		<u></u>						
20. Facility Owner or Operator: Certification of recei	ipt of waste material	s covered by this mani	fest except as noted in	ltem 19.				
20. Facility Owner or Operator: Certification of recei	ipt of waste material	s covered by this mani	lest except as noted in	Item 19.				

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$\square \square Z ^{\vee}$					DATE	29164:
ENVIRONMENTAL GROUP, INC 60 Commerce Drive, Buffalo, NY 14218 www.hazmatinc.com	FAX (716) 827-721 (716) 827-720			YDEC #9A-278 PA ID# NYD980769947	/	/
PICKUP			DELIVERY			an an ann an an an
NAME MCKESSON CHE	IMICAL			STE MANAGEM	रागा'	
S STREET HAUBEAR STREE	T		O N STREET 1550	BALMER ROAD	à	<u> </u>
I CITY SYRACUSE	STATE NY	ZIR CODE	S I Спту ВАУ_	DEL CITY	STATE	14 CZIP CODE
P CONTACT NAME		PHONE	G CONTACT NA	ME		PHONE
R SCHEDULED TIME			E			
ADDITIONAL INFORMATION / If damaged at pickup site, did via Qualcomm? Y	EQUIPMENT DAMAGE you send in Equipment Da N Explain damage b	amage Report (EDR) pelow.	Pursuant to to deliver th of Lading. 101, Item 8	6NYCRR 372.2 (b) (2) his shipment of manife Shipment valuation lin 48.	(iii) HazMat certifies ested waste to the T nits apply from HazM	s that it is Authorized SDF listed on this Bill Mat Rules Publication
			ADDITIONA If damaged via Qualcon	L INFORMATION / EQU at delivery site, did you im? Y N	IPMENT DAMAGE I send in Equipment D Explain damage b	Damage Report (EDR) below.
PURCHASE ORDER NO.	WORK ORDER NUMBER	MANIFES	TNUMBER	H.M	. NUMBER	4164
	TRACTOR RTL3	TRAILER UNENOVA	ROLL OFF BOX	DRIVER NUMBER	DRIVER'S NAME	d, kevin
EQUIPMENT	MATE	RIAL DESCRIPTION	I / MANIFEST NUM	BER	QL	JANTITY
UNIT# DROPPED UNIT# PICKED UP CONDITION REPORT	2319	$\overline{\mathbf{x}}$				
PICK UP	i i		DELIVERY			
PICK UP DATE			DRIVER		DAY #1 DATE	
ARRIVAL TIME	^{CAM} PM RELEASE TIN	ИЕРМ	ARRIVAL TIM	ерм	RELEASE TIM	IE ^{AM}
DAY #2 DATE			DAY #2 DATE	ARRIVAL TIME		
ARRIVAL TIME	PM RELEASE TIN	АМ ИЕРМ	DAY #3 DATE	ARRIVAL TIME	PM RELEAS	
TRAILER EMPTY UPON AR (if not, explain below—) DIP MEASUREMENT (Tank	IRIVAL		TRAILER CLE	AN AND EMPTY UP elow—)	ON DEPARTURE	□YES □NO
COMMENTS: (EXPLAIN ALI	L DELAYS)	<i>l. 1</i>		(Explain all delays	or discrepancies))
						······
HAZMAT MATERIALS USED (IF YES EXPLAIN: I, THE UNDERSIGNED, CERTI TRUE AND COMPLETE	ex. overpacks, etc.): FY THAT THE ABOVE I		IF YES EXPL	AIN: SIGNED, CERTIFY TI MPLETE.	HAT THE ABOVE IN	FORMATION IS
SHIPPER'S SIGNATURE		Date		SIGNATURE	C	Date

	NON-HAZARDOUS 1. Generate WASTE MANIFEST	or's US EPA ID No.	Manifest Doc. N	No. 2. Pag	e 1 1			
	3. Generator's Name and Mailing Address McKesson Corporation 1 Post Street, 32nd Floor San Francisco CA 94104 4. Generator's Phone (415) 983-759	8		Van Syn	Rensse Acuse N	elear a Y 1320	nd Bear Str 04	eet
-	5. Transporter 1 Company Name Hazmat Emvironmental Group Inc.	6. US EP,	A ID Number 3076994	A. Trai	nsporter's P	^{hone} 71	6 827-7200	0
	7. Transporter 2 Company Name	<u>عبر نینی</u> 8. US EP، است.	A ID Number	B. Trai	nsporter's f	Phone		
-	 Designated Facility Name and Site Address CWM Chemical Services, LLC 1550 Baimer Road, PO Box 200 	10. US EP/	A ID Number	C. Fac	ility's Phone	• 71:	6 754-823	1
-	Model City NY 14107	NYD04	983667	9	12. Cont	ainers	_13.	-
	Non-marketed metadatel				No.	Туре	Total Quantity	v
Ĩ	(soil and concrete)				0.0	1 C	Ful Az (100)	
ľ).						- 	1
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6	л. — — — — — — — — — — — — — — — — — — —							
	Additional Descriptions for Materials Listed Above		·····	E Han		. for Was		ľ
	a. C.			8.		101 1143	C.	
	b. d .			D.			a.	
Ī	5. Special Handling Instructions and Additional Information •)VA7434				<u></u>		3#13744 #3ca/ 9	6
							66197	~
	· · · · · · · · · · · · · · · · · · ·							
1	6. GENERATOR'S CERTIFICATION: I certify the materials describ Printed/Typed Name	ed above on this manifest are Signature	not subject to federal reg	ulations for r	aporting prop	er disposa	al of Hazardous Wa Month Day	aste. ,
+	JEAN MISSING		\leq				بملصلا	Ξk
	Printed/Typed Name	Signature (Michael U	Ponce	me			Í
	8. Transporter 2 Acknowledgement of Receipt of Materials	Signature					Month Day	, ,
	Printed/Typed Name							
	Printed/Typed Name 9. Discrepancy Indication Space	I						
	Printed/Typed Name 9. Discrepancy Indication Space	L						
	Printed/Typed Name 9. Discrepancy Indication Space 	terials covered by this mani	ifest except as noted in	Item 19.				-

	TIRONMENTAL GROUP, INC ommerce Drive, Buffalo, NY 14218 v.hazmatinc.com	AT	DATE NYDEC #9A-278 EPA ID# NYD980769947	29164 / /
s	NAME ACKESSON CHEMPORI NAME ACCEERT	с 0	NAME WASTE MANAGEMENT	
H H P E	SYFACUSE NY 12001 CITY STATE ZIP CODE CONTACT NAME PHONE	N S I G N		STATE 14307 ZIP CODE PHONE
	SCHEDULED TIME ADDITIONAL INFORMATION / EQUIPMENT DAMAGE If damaged at pickup site, did you send in Equipment Damage Report (EDR) via Qualcomm? Y N Explain damage below.	E	Pursuant to 6NYCRR 372.2 (b) (2) (iii) Ha to deliver this shipment of manifested w of Lading. Shipment valuation limits app 101, Item 848.	zMat certifies that it is Authorized aste to the TSDF listed on this Bill bly from HazMat Rules Publication
			ADDITIONAL INFORMATION / EQUIPMENT If damaged at delivery site, did you send ir via Qualcomm? Y N Exp	DAMAGE Equipment Damage Report (EDR) lain damage below.
	PURCHASE ORDER NO. WORK ORDER NUMBER MANIFEST LOAD NUMBER TRACTOR FILD TRAILER/MEMOUSI R EOLIDMENT MATERIAL DESCRIPTION			R 44153
	EQUIPMENT TYPE UNIT# DROPPED UNIT# PICKED UP $ABBA$ $N ON - AEBA$			EST. SI DOAP
				7 610001
	ICK UP DATE <u>10/5/04</u> RRIVAL TIME <u>7/5</u> AM RRIVAL TIME <u>7/5</u> AM AY #2 DATE RRIVAL TIME RRIVAL TIME PM RELEASE T	DF AF DA DA TR (if)	RIVER DAY RRIVAL TIME AM REI AY #2 DATE ARRIVAL TIME AY #3 DATE ARRIVAL TIME RAILER CLEAN AND EMPTY UPON DE not, explain below—) DMMENTS: (Explain all delays or disc	#1 DATE AM LEASE TIME AM AM PM RELEASE TIME AM PM RELEASE TIME AM PARTUREYESNO prepancies))
	AZMAT MATERIALS USED (ex. overpacks, etc.): YES NO YES EXPLAIN: THE UNDERSIGNED, CERTIFY THAT THE ABOVE INFORMATION IS RUE AND COMPLETE: HIPPER'S SIGNATURE Date		YES EXPLAIN: THE UNDERSIGNED, CERTIFY THAT TH WE AND COMPLETE. DNSIGNEE'S SIGNATURE	E ABOVE INFORMATION IS

	n designed for use on elite (12-pitch) typewitter)	r's US EPA ID No.	Manifest Doc. No. 2. Page 1	
	WASTE WANFEST 3. Generator's Name and Mailing Address McKesson Corporation 1 Post Street, 32nd Floor San Francisco CA 94104 4. Generator's Phone (415) 983 ~ 7598	<u> </u>	Van Rensselear and Bear Stre Syracuse NY 13204	et
	5. Transporter 1 Company Name Hazmat Environmental Group Inc.	6. US EPA ID Nu NYD 9807	Imber A. Transporter's Phone 716 827-7200	
	7. Transporter 2 Company Name	8. US EPA ID Nu	umber B. Transporter's Phone	
-	 Designated Facility Name and Site Address CVM Chemical Services, LLC 1550 Baimer Road, PO Box 200 Model City NY 14107 	10. US EPA ID Nu	The second secon	
	11. Waste Shipping Name and Description *		12. Containers 13. Total No Type Quantity	Ţ
	a. Non-regulated material (soil and concrete)		001 CM20000)
	b.			
	C .		· · ·	
i	d.	· · · · · · · · · · · · · · · · ·	· · · · · · · · ·	╞
	•			
	D. Additional Descriptions for Materials Listed Above		E. Handling Codes for Wastes Listed Above	
	b. d.		b. d.	
	15. Special Handling Instructions and Additional Information ●)VA7434 Cシンジチ 長ら 129		WTS#13744 SR# <u>736</u>]3	-
			·	
•	16. GENERATOR'S CERTIFICATION: I certify the materials describ Printed/Typed Name 17.12 17.12	ed above on this manifest are not sub Signature	Month Day	
	17. Transporter 1 Acknowledgement of Heceipt of Materials Printed/Typed Name MICHAEL RONCONE 18. Transporter 2 Acknowledgement of Passist of Materials	Signature	lichal Rencone 11.00	7
	Printed/Typed Name	Signature	Month Day	
FAC-	19. Discrepancy Indication Space		· · ·	
	20. Facility Owner or Operator: Certification of receipt of waste ma	terials covered by this manifest ex	ccept as noted in Item 19.	
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ENVIRON 60 Comme www.haz	NMENTAL GROUP, INC arce Drive, Buffalo, NY 14218 matinc.com	FAX (716) 827-72 (716) 827-72		AT	NYI EP/	DEC #9A-278 ID# NYD980769947	DAT	re /	/ /	29172
S PIC	KUP ME MCNESSON CHEA	APCAL		с 0	NAME WAS	TE MANAGE Bai mer e g		• •		n <u>Kalea</u> ta
H I P E C C R S C		STATE 1	PHONE	N S I G N E E				STATE 1		PHONE
	DDITIONAL INFORMATION / Ed damaged at pickup site, did yo a Qualcomm? Y N	QUIPMENT DAMAGE bu send in Equipment (N Explain damage	Damage Report (EDR) below.		Pursuant to to deliver th of Lading. S 101, Item 84 ADDITIONAL If damaged a via Qualcom	6NYCRR 372.2 (b s shipment of m shipment valuatio 8. INFORMATION / t delivery site, did n? Y	(2) (iii) anifestec n limits EQUIPME you sen N . E	HazMat ce t waste to apply from ENT DAMAC d in Equipn Explain dam	At the TSDF list HazMat Rule AE nent Damage hage below.	is Authorized ed on this Bill es Publication Report (EDR)
	ACHASE ORDER NO.	WORK ORDER NUMBER	MANIFEST	NUMB			H.M. NUM	ABER RIVER:S.NAM	44165 50 NE, MB C	CHARL
		NON -	ERIAL DESCRIPTION	/ MAI	NIFEST NUME	IER		(t	QUANTIT E 3 T. 0,00	ν 0 ρ
PIC	(UP			DI	ELIVERY				· ·	
	(UP DATE	ΟΥ [AM PM RELEASE T AM PM RELEASE T	IME 7/5 AM PM	DI Af DA	RIVER RRIVAL TIME AY #2 DATE AY #3 DATE	ARRIVAL T	D _PM _ I IME	AY #1 DA RELEASE ÅM RI ÅM RI	NTE E TIME ELEASE TIM ELEASE TIM	AM PM E AM E AM PM
	NILER EMPTY UPON ARI ot, explain below—) MEASUREMENT (Tanke MMENTS: (EXPLAIN ALL イール/	RIVAL DYES ers Only) DELAYS)	INCHES	TF (if C) 	RAILER CLEA not, explain bo OMMENTS:	N AND EMPTY slow) (Explain all del	UPON	DEPARTU	JRE Y	ES NO
HAZ IF Y I, TH TRU SHII	MAT MATERIALS USED (e: 'ES EXPLAIN: IE UNDERSIGNED, CERTII IE AND COMPLETE.	x. overpacks, etc.): FY THAT THE ABOV	VES NO		YES EXPLA THE UNDERS RUE AND CON	IN: IGNED, CERTIF APLETE. SIGNATURE	т тнат	THE ABC	DVE INFORM	AATION IS

1	esigned for use on elife (12-pitch) typewriter:	1. Generator's	US EPA ID No.	Manifest Doc. No.	2. Page 1			
3.	WASTE MANIFEST Generator's Name and Mailing Address McKesson Corporation 1 Post Street, 32nd Floor	<u></u> , .	<u> </u>	- 104004	Van Ren	sselear a	und Bear Stre	et
4.	Generator's Phone (415) 983	- 7 5 9 8	ł		Synactus	5 INT 132	04	
5.	Transporter 1 Company Name Hazmat Environmental Group Inc.		6. USEP/	A ID Number 076994	A. Transporte	er's Phone 71	6 827-7200	
7.	Transporter 2 Company Name		8. US EP/	A ID Number	B. Transporte	er's Phone		
9.	Designated Facility Name and Site Address	·	10. US EP/	A ID Number	C. Facility's F	hone		
	1550 Batmer Road, PO Box 200			0 0 0 0 0 7		71	6 754-8231	
11	. Waste Shipping Name and Description	۰,	N.Y.D.U.4	883661	12.	Containers	13. Total	Т
	Non-rem istad material		<u> </u>		N	o. Type	Quantity	<u>h</u> w
ŭ.	(soil and concrete)		•		0		251.	
b.							50000	┦
C.								T
-								1
d.			•					
D.	Additional Descriptions for Materials Listed Abov				E. Handling C	odes for Was	stes Listed Above	L
	8.	C.			a .		G .	
	D.	d.			b.		đ.	
15	. Special Handling Instructions and Additional Info	mation		<u>,</u>	1	WT	S#13744 736/9-	
						U.U.		/
	11-22-22-55 23125							
	143023EF そうわう							
16	Hass ようして そうして GENERATOR'S CERTIFICATION: 1 certify the m	naterials described	above on this manifest are	not subject to federal regula	tions for reporting) proper dispos	sal of Hazardous Wa	ste.
16	Hastager Hastager Solution Interview Printed/Typed Name Falsy	aterials described	above on this manifest are Signature	not subject to federal regula	tions for reporting	g proper dispos	Month Day	ste.
16	Handle Service Handle	naterials described	above on this manifest are Signature	not subject to federal regula	tions for reporting	g proper dispos	Sal of Hazardous Wa Month Day	ste.
16	Hardson Service GENERATOR'S CERTIFICATION: 1 certify the m Printed/Typed Name Constraints Minute Printed/Typed Name Printed/Typed Name Keylin	naterials described	above on this manifest are Signature Signature	not subject to federal regula	tions for reporting	g proper dispos	Month Day Month Day Month Day	ste.
16	B. GENERATOR'S CERTIFICATION: 1 certify the m Printed/Typed Name Frinted/Typed Name Frinted/Typed Name Applin Maggurd I. Transporter 1 Acknowledgement of Receipt of Maggurd I. Transporter 2 Acknowledgement of Receipt of Maggurd I. Transporter 2 Acknowledgement of Receipt of Maggurd	naterials described // aterials aterials	above on this manifest are Signature Signature	not subject to federal regula	tions for reporting	g proper dispos	Month Day Month Day Month Day Month Day	ste.
16	Hardborg SERTIFICATION: 1 certify the m B. GENERATOR'S CERTIFICATION: 1 certify the m Printed/Typed Name Transporter 1 Acknowledgement of Receipt of Ma Printed/Typed Name Acuin Maggurd I. Transporter 2 Acknowledgement of Receipt of Ma Printed/Typed Name Printed/Typed Name Acuin Printed/Typed Name	naterials described // aterials aterials	above on this manifest are Signature Signature Signature	not subject to federal regula	tions for reporting	g proper dispos	Month Day Month Day Month Day Month Day Month Day	
16 17 18	Image: Solution B. GENERATOR'S CERTIFICATION: 1 certify the m Printed/Typed Name Image: Transporter 1 Acknowledgement of Receipt of Mage: Transporter 1 Acknowledgement of Receipt of Mage: Transporter 2 Acknowledgement of Receipt of Mage: Transporter 2 Acknowledgement of Receipt of Mage: Printed/Typed Name Image: Transporter 2 Acknowledgement of Receipt of Mage: Transporter 2 Acknowledgement of Receipt of Mage: Printed/Typed Name Image: Discrepancy Indication Space	naterials described // aterials aterials	above on this manifest are Signature Signature Signature	not subject to federal regula	tions for reporting	g proper dispos	Month Day	
16 17 18	Image: Solution B. GENERATOR'S CERTIFICATION: 1 certify the m Printed/Typed Name Image: Transporter 1 Acknowledgement of Receipt of Mage: Transporter 1 Acknowledgement of Receipt of Mage: Transporter 2 Acknowledgement of Receipt of Mage: Transporter 2 Acknowledgement of Receipt of Mage: Printed/Typed Name Image: Transporter 2 Acknowledgement of Receipt of Mage: Transporter 2 Acknowledgement of Receipt of Mage: Printed/Typed Name Image: Discrepancy Indication Space	naterials described // aterials aterials	above on this manifest are Signature Signature Signature	not subject to federal regula	tions for reporting	g proper dispos	Month Day Month Day Month Day	
116 177 18 19 20	Image: Solution of receipt Image: Solution of the	naterials described // aterials aterials bt of waste materials	above on this manifest are Signature Signature Signature	not subject to federal regula	tions for reporting) proper dispos	Anoth Day	
16 17 18 19 20	Image: Solution of receipt Image: Solution of the solution o	naterials described // aterials aterials bt of waste mater	above on this manifest are Signature Signature Signature ials covered by this mani	not subject to federal regula	tions for reporting	g proper dispos	Anonth Day	

	DATE 2917
VIRONMENTAL GROUP, INC FAX (716) 827-7217 Commerce Drive, Buffalo, NY 14218 (716) 827-7200 w hazmatinc.com HAZM	AT EPA ID# NYD980769947
	DELIVERY
MACKESSON CHELICAL	NAME STE MULAGELARITT
STREET IN LACE OF A MARKET	N STREET BALLAISE ROUALD
CITY TO COLOR STATE DECODE	S CHARLEL CITY STATE 14107 ZIP CO
CONTACT NAME	G
SCHEDULED TIME	
ADDITIONAL INFORMATION / EQUIPMENT DAMAGE If damaged at pickup site, did you send in Equipment Damage Report (EDR) via Qualcomm? Y N Explain damage below.	Pursuant to 6NYCRR 372.2 (b) (2) (iii) HazMat certifies that it is Authorize to deliver this shipment of manifested waste to the TSDF listed on this E of Lading. Shipment valuation limits apply from HazMat Rules Publication 101, Item 848.
	ADDITIONAL INFORMATION / EQUIPMENT DAMAGE If damaged at delivery site, did you send in Equipment Damage Report (EDF via Qualcomm? Y N Explain damage below.
PURCHASE ORDER NO. WORK ORDER NUMBER MANIFEST	「NUMBER H.M. NUMBER 中部)点(
LOAD NUMBER TRACTOPTL3 TRANSPORT	ROLL OFF BOX DRIVER NUMBER DRIVER'S NAMERS STORE
	MINGTONICO MENTIPORES, RELVEN
EQUIPMENT MATERIAL DESCRIPTION EQUIPMENT TYPE UNIT# DROPPED	/ MANIFEST NUMBER QUANTITY
EQUIPMENT MATERIAL DESCRIPTION EQUIPMENT TYPE UNIT# DROPPED UNIT# PICKED UP CONDITION REPORT	/ MANIFEST NUMBER QUANTITY
EQUIPMENT MATERIAL DESCRIPTION EQUIPMENT TYPE UNIT# DROPPED UNIT# PICKED UP CONDITION REPORT PICK UP	/ MANIFEST NUMBER QUANTITY
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EQUIPMENT MATERIAL DESCRIPTION EQUIPMENT TYPE	Interstation Interstation / MANIFEST NUMBER QUANTITY / MANIFEST NUMBER QUANTITY DELIVERY

Attachment 3

Well Construction Logs

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BLASLAND, BOUCK & LEE, INC. engineers, scientists, economists

Rig	Type npling	: CN 3 Me	AE 85	50 : N	A					Geologist: Ricardo Jaimes		Syracuse, NY
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description		Well/Boring Construction
	375 -											Stick up with protective casing with locking cover 2" ID Sch. 40 PVC Riser (2.5' ags - 10.0' bgs)
.5	- - - - - - - - - - - - - - - - 									No samples collected from 0' - 20.0' bgs. See log for MW-8S Stratigraphic description.	for	2" ID Sch. 40 PVC Riser (2.5' ags - 10.0' bgs) Cernent-Bentonite Grout (0' - 6.0' bgs) Hydrated bentonite chips seal (6.0' - 8.0' bgs)
10												
:	360 -											Grade #00 Silica Sand Pack (8.0' - 20.0' bgs)
15					3				F	emarks: NA = Not Applicable/Available; bo Tricone bit was used to drill the in	gs = below gi iterval betwe	40 PVC Screen (10.0' - 20.0' bgs) round surface. en 7.0' and 20' bgs.
Client: McKesson Envirosystems Site Location:

Bear Steet Facility Syracuse, NY

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Borehole Depth: 20' below grade

DEPTH	ELEVATION	Sample Run Numbei	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppn	Analytical Sample	Geologic Column	Well/Bo Stratigraphic Description Constru	ring ction
	_									No samples collected from 0' - 20.0' bgs. See log for MW-8S for Stratigraphic description.	2" 0.010 Slot Sch. 40 PVC Screen (10.0' - 20.0' bgs)
3	- 555										- Grade #00 Silica
20	-										Sand Pack (8.0' 20.0' bgs)
	1										-
	_										-
3	- 50										-
25	-										-
										• .	-
3	45 -										-
	-										-
0	-										-
	-										4
3	40 -										
	_										4
5	-										-
	H BLAS D n g	LAN			3 CK 8 x s c	k LE		NC. sts		Remarks: NA = Not Applicable/Available; bgs = below ground surface. Tricone bit was used to drill the interval between 7.0' and 20' bgs.	

Dril Dril Bit Aug Rig Sar	lling (ller's lling Size: ger S J Type nplin	Com Nam Veth 4 1/ ize: 2: Cl g Me	pany: e: F od: 4" 4 1/4 ME 8: thod	: Pa Rober HSA " HS 50 : N	rratt V t Balc and D A A	Volff loze DRC	3 7/8	3" Tri	cone E	Easting: NA Casing Elevation: NA it Borehole Depth: 20' below grade Surface Elevation: 373.3' Geologist: Ricardo Jaimes	Client: McKesson Envirosystems Location: Bear Steet Facility Syracuse, NY			
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction			
	375 - -										Stick up with protective c with locking 2" ID Sch. 4 Riser (2.5' a 10.0' bgs)			
										No samples collected from 0' - 20.0' bgs. See log for TW-02 f Stratigraphic description.	or			
- 5	- 370 - - -										2" ID Sch. 4 Riser (2.5' a 10.0' bgs) Cement-Ber Grout (0' - 6			
	- 365 -										3. 8.0' bgs)			
- 10	-													
	-										Grade #00 S Sand Pack (20.0' bgs)			
æ - 15	360 - - -										2" 0.010 Slot 40 PVC Scre (10.0' - 20.0'			
		SLAP			3 CK 8				F	emarks: NA = Not Applicable/Available; bg Tricone bit was used to drill the int	s = below ground surface; terval between 7.0' and 20' bgs.			

Client: McKesson Envirosystems

Site Location: Bear Steet Facility Syracuse, NY

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Well/Boring ID: TW-02RR

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Borehole Depth: 20' below grade

DЕРТН	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
3	- 55					-				No samples collected from 0' - 20.0' bgs. See log for TW-02 for Stratigraphic description.	2" 0.010 Slot Sa 40 PVC Screen (10.0' - 20.0' bg
20	-										Sand Pack (8.0 20.0' bgs)
	_										
3	- 50 -										
25	-										
	-					/					
34	- 45 -										
30	-										
	_										
34	40 -										
35	-										
	BLAS				3 CK 8		E, IN	VC.	F	Remarks: NA = Not Applicable/Available; bgs = below grain fricone bit was used to drill the interval between the second s	ound surface; en 7.0' and 20' bgs.
ē	en g	In	00	s é	k sc	10	nti	sts			

Drill Drill Bit S Aug Rig Sam	ling C ler's I ling M Size: er Siz Type pling	ieth 4 1/- ze: CN Me	pany e: F od: 4" 4 1/4 ME 8 thod	: Pa Rober HSA 50 : N	rratt V t Balo A	Voiff loze			• • • • •	Easting: NA Casing Elevation: NA Borehole Depth: 17' below grade Surface Elevation: NA Geologist: Ricardo Jaimes	Client: McKe Location: Bi	esson Envirosystems ear Steet Facility yracuse, NY
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description		Well/Boring Construction
	1											
0	- 5 -									No samples collected from 0 - 17.0 bgs. See log for MW-28 f Stratigraphic description.	or .	1" ID Black stee Riser (2.5' ags - 7.0' bgs) Cement-Benton Grout (0' - 4.5' t Hydrated bento chips seal (4.5' 6.5' bgs)
- 10-	- 10 -											1° 0.010 Slot Sc Stainless Steel Screen (7.0' - 1) bgs)
- 15-	- 15 -								R	emarks: NA = Not Applicable/Available; bg	s = below grou	Grade #00 Silic Sand Pack (6.5' 17.0' bgs)
	BLAS	SLAN JIN		BOU rs		& LE	E, II	NC. sts				

Client: McKesson Envirosystems Site Location:

Bear Steet Facility Syracuse, NY

PID Headspace (ppm) Sample Run Number Analytical Sample Geologic Column Blows / 6 Inches Sample/Int/Type Recovery (feet) Well/Boring ELEVATION N - Value Stratigraphic Description Construction DEPTH No samples collected from 0' - 17.0' bgs. See log for MW-28 for Stratigraphic description. Grade #00 Silica Sand Pack (6.5' -17.0' bgs) , 1° 0.010 Slot Sch. Stainless Steel Screen (7.0' + 17.0' bgs) Steel Bottom cap 20-20 25-25 30-30 35-35 Remarks: NA = Not Applicable/Available; bgs = below ground surface; BLASLAND, BOUCK & LEE, INC. engineers & scientists

Well/Boring ID: WP-1

Borehole Depth: 17' below grade

Template:j:\rockware\logplot2001\logfiles\26001\McKessonWELLS.ldf Date: 9/2/04

Rig San	Type npling	20: : Cl g Me	4 1/4 ME 8 ethod	1" HS 50 I: N	A A					Surface Elevation: NA Geologist: Ricardo Jaimes	Location:	Bear Steet Syracuse, I	Facility NY
ОЕРТН	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description			Well/Boring Construction
-	- 												
- 5										No samples collected from 0' - 17.0' bgs. See log for MW-28 f Stratigraphic description.			1" ID Blac Riser (2.5 7.0' bgs) Cement-E Grout (0' Hydrated chips seal 6.5' bgs)
- 15-	- - 15 -												Stainless Screen (7. bgs) Grade #00 Sand Pacl 17.0' bgs)

Client:	
McKesson Envirosystems	
Site Location:	

Bear Steet Facility Syracuse, NY

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Borehole Depth: 17' below grade

DEPTH FI FVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
									No samples collected from 0' - 17.0' bgs. See log for MW-28 for Stratigraphic description.	Grade #00 Sill Sand Pack (6. 17.0' bgs)
- 20-20										1* 0.010 Slot 5 Stainless Stee Screen (7.0' - bgs) Steel Bottom o
- 25-25										
- 30- <i>30</i>	-									
35-35	-	2		2					Remarks: NA = Not Applicable/Available; bgs = below gr	ound surface;
BLA e n	SLAI g i n	ND, E	BOU s	CK 8 S s c	<u>8 LE</u> :10	E, II n f i	NC. sts			

DEPTH	ELEVATION	Sample Run Number Sample/Int/Tvne	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	(Well/Boring Construction			
_	-										1" ID Black steel Riser (2.5' ags - 7.0' bgs)			
5 -									The samples collected from U = 17.0 bgs. See log for MW-28 for Stratigraphic description.		1" ID Black steel Riser (2.5' ags - 7.0' bgs) Cement-Bentonite Grout (0' - 4.5' bgs) Hydrated bentonite chips seal (4.5' - 6.5' bgs)			
15-1											1" 0.010 Slot Sch. Stainless Steel Screen (7.0' - 17.0' bgs) Grade #00 Silica Sand Pack (6.5' - 17.0' bgs)			

Date: 9/2/04

Client:
McKesson Envirosystems
Site Location:

Bear Steet Facility Syracuse, NY

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Borehole Depth: 17' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
										No samples collected from 0' - 17.0' bgs. See log for MW-28 for Stratigraphic description.	Grade #00 Silica Sand Pack (6.5' - 17.0' bgs)
	1										1* 0.010 Slot Sch. Stainless Steel Screen (7.0' - 17.0' - bgs) Steel Bottom cap
20-2	20 -										-
	-										-
	-										-
	-										-
	-										-
25-2	25 -										-
	-										-
											-
30-3	30 -										
					-						
	4										
	4										
	-										-
35-3	5 -										-
										Remarks: NA = Not Applicable/Available: bos = below or	ound surface:
l					3				ſ	ternarites. Της - του αγρικαυτο/Available, bys - Delow gr	unu sullace,
8. e	LAŞ ng	In	ID, B e e r	s 8	CK 8 (s c	LE I e I	E, IN ntis	IC.			

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Drilli Bit S Auge Rig 1 Sam	ing N Size: er Siz Type pling	leth 4 1/ ze: : CN Me	od: 4" 4 1/4 ME 8! thod	HSA " HS. 50 : N	A A					Borehole Depth: 19' below grade Surface Elevation: NA Geologist: Ricardo Jaimes	Location	: Bear Steet Facility Syracuse, NY
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description		Well/Boring Construction
	-											1" ID Black steel Riser (2.5' ags - 9.0' bgs)
10-	-5									All samples collected from U - 19.0 bgs. See log for MW-3 Stratigraphic description.		1" ID Black steel Riser (2.5' ags - 9.0' bgs) Cement-Bentonite Grout (0' - 6.5' bgs) Hydrated bentonite chips seal (6.5' - 8.5' bgs) 1" 0.010 Slot Sch. Stainless Steel Screen (9.0' - 19.0' bgs) Grade #00 Silica Sand Pack (8.5' - 19.0' bgs)
15-	15 - BLAS	SLAI		BOL			E, II	NC.	1	Remarks: NA = Not Applicable/Available; t	ogs = below g	ground surface;

-	Bear Steet Facility Syracuse, NY										h: 19 [,] below grade
	ATION	e Run Number	e/Int/Type	rery (feet)	/ 6 inches	alue	eadspace (ppm)	tical Sample	gic Column	Stratigraphic Description	Well/Boring Construction
DEPTH	ELEV	Sampl	Sampl	Recov	Blows	> z	HOId	Analy	Geolo	No samples collected from 0' = 19 0' bos. See ino for MW-33 for	
	-									Stratigraphic description.	Sand Pack (8.5 - 19.0' bgs) 1* 0.010 Slot Sch. Stainless Steel Screen (9.0' - 19.0' bgs) Steel Bottom cap
20-	-20 -										
	-										
	-										
	-										
25-	-25 -										-
	-			-							
	-										
30-	30 -								-		-
	-				i						
	-										
35-	35 -										-
					2				F	Remarks: NA = Not Applicable/Available; bgs = below gr	ound surface;

Data File:WP-4.dat

gp g Date: 9/2/04

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Date Drilli Drilli Bit S Auge Rig 1 Sam	ing C er's I ing N ize: er Sia Type pling	Nam Aeth 4 1/ ze: : CN g Me	e: F od: 4" 4 1/4 ME 8 thod	8/9 : Pa Robei HSA " HS 50 : N	rratt V rt Balc A A	Volff loze				Easting: NA Casing Elevation: NA Borehole Depth: 19' below grade Surface Elevation: NA Geologist: Ricardo Jaimes	Client: Mo	cKesson Envirosystems Bear Steet Facility Syracuse, NY
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description ,		Well/Boring Construction
	_											
	5									No samples collected from 0° - 19.0° bgs. See log for MW-33 Stratigraphic description.	ror	1" ID Black s Riser (2.5' a 9.0' bgs) Cement-Ben Grout (0' - 6. Hydrated ben chips seal (6 8.5' bgs) 1" 0.010 Slot Stainless Ste Screen (9.0' bgs) Grade #00 S Sand Pack (1 19.0' bgs)
Ē	BLAS an g	SLAP 3 (n		BOU rs d	3 CK 8 % s c	2 LE		NC. sts	F	Remarks: NA = Not Applicable/Available; bg	s = below g	round surface;

Client:	
McKesson	Envirosystems

Site Location: Bear Steet Facility Syracuse, NY

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Well/Boring ID: WP-5

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Borehole Depth: 19' below grade

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Image: state in the second s								-		
- -	DEPTH ELEVATION	Sample Run Number	Sample/Int/Type Recoverv (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
-20-20 -20-20 -25-25 - -30-30 - -35-35 -									No samples collected from 0' - 19.0' bgs. See log for MW-33 for Stratigraphic description.	Grade #00 Silic Sand Pack (6.5 19.0' bgs) 1° 0.010 Slot S Stainless Steel Screen (9.0' - 1 bgs)
-25-25 - 	- 20-20 -									
- 25-25 - 30-30 - 30-30 - 35-35 Remarks: NA = Not Applicable/Available; bgs = below ground surface;										
Remarks: NA = Not Applicable/Available; bgs = below ground surface;	- 25-25 -									
Remarks: NA = Not Applicable/Available; bgs = below ground surface;										
- 35-35 - 35-35 - 35-35 - 35-35 Remarks: NA = Not Applicable/Available; bgs = below ground surface;	- 30-30 -									
- 35-35 - Remarks: NA = Not Applicable/Available; bgs = below ground surface;										
Remarks: NA = Not Applicable/Available; bgs = below ground surface;										
	Ī	3		3					Remarks: NA = Not Applicable/Available; bgs = below g	round surface;
BLASLAND, BOUCK & LEE, INC. engineers & scientists	BLASL eng	LANE In e	D, BO ers	UCK 8 & s c	& LE ;/e	E, IN	NC. sts			

Date Drilli Drilli Bit S Auge Rig T Samı	Start ng Co r's N ng M ize: 4 r Siz ype: oling	omj lam eth 4 1/4 e: CN Me	4" 4" 4 1/4 4E 85 4 1/4	8/1 : Pa Rober HSA " HSA 50 : N	0/04 rratt \ rt Balo A A	Wolff Joze	e			Easting: NA Easting: NA Casing Elevation: NA Borehole Depth: 18' below grade Surface Elevation: NA Geologist: Ricardo Jaimes	Client: McKesson Envirosystems Location: Bear Steet Facility Syracuse, NY	
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction	
	-										1" ID E Riser (8.0' bg	llack 2.5' is)
											1" ID E Riser (8.0' bg Cemer Grout (4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	llack 2.5'; s) 11-Be ed be ead ((0' - 5 ed be ead ((1) s) 0 Sict (8.0' (8.0' (8.0' (8.0')
- 15-1 	5 -		D, B		З		E, IP	JC.	F	emarks: NA = Not Applicable/Available; bg	s = below ground surface;	

s	McKe i te Lo Bear Syra	essoi ocat r Ste icusi	n Env ion: et Fa e, NY	virosy acility	/stem:	S				Borehole Dept	h: 18' below grade
рертн	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
-	-									No samples collected from 0' - 18.0' bgs. See log for MW-27 for Stratigraphic description.	Grade #00 Sand Pack 18.0' bgs) 1° 0.010 Sid Stainless Si Screen (8.0 bgs) Steel Bottor
- 20-	20 - - -										
- 25	- 25 - -			-							
- - - 30-:	- - 30 -										
- 35-3	35 -										
B					3		E, IN			Remarks: NA = Not Applicable/Available; bgs = below gr	ound surface;

a,

	Date S Drilling Driller Drilling Bit Siz Auger Rig Ty Sampl	tart/l g Coi s Na g Mei e: 4 Size pe: 4 ing N	Finis mpa me: thod 1/4" 4 CME leth	sh: ny: R(1/4" 85(od:	8/12 Par ober 1SA 'HS/ 0 N/	2/04 rratt V t Balc A	Volff Joze	-			Northing: NA Easting: NA Casing Elevation: NA Borehole Depth: 18' below grade Surface Elevation: NA Geologist: Ricardo Jaimes	Well/Bori Client: M Location:	ng ID: WP-7 cKesson Envirosystems Bear Steet Facility Syracuse, NY
	UEPTH	ELEVATION Samola Dun Numher	Campio For Manuaci		Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description		Well/Boring Construction
	0					-							1* ID Black ste Riser (2.5' ags 8.0' bgs)
											No samples collected from 0' - 18.0' bgs. See log for MW-27 f Stratigraphic description.	for	1* ID Black ste Riser (2.5' ags 8.0' bgs)
	5 - 5										• •		Cement-Benta Grout (0' - 5.5'
-		-											Hydrated bent chips seal (5.5 7.5' bgs)
	10-10												1* 0.010 Slot S Stainless Steel Screen (8.0' - 4 bgs)
	` 15- <i>15</i>												Grade #00 Slitc Sand Pack (7.5 18.0' bgs)
	BL/ e r	ASL/), B		3 CK 8 & s c	& LE	E, II	NC. sts		Remarks: NA = Not Applicable/Available; bg	s = below g	round surface;

S	ilient McKe iite L Bea Syra	:: ocat r Ste acus	n Env tion: eet Fa e, NY	virosy acility	ystem /	S			Well/Boring ID: WP-7 Borehole Depth: 18' below grade				
DЕРТН	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analyticat Sampte	Geologic Column	Stratigraphic Description	Well/Boring Construction		
-	-									No samples collected from 0' - 18.0' bgs. See log for MW-27 for Stratigraphic description.	Grade #00 Sand Paci 18.0 bgs) 18.0 bgs) 1* 0.010 S Stainless Streen (8		
- - 20- -	- 20 -										bgs) Steel Both		
- 25-	- 25 - -												
- 30-	- 30 - -												
- 35	- 35 -									Remarks: NA = Not Applicable/Available; bgs = below gr	ound surface;		
Ē	BLAS		JD, E	BOU		k LE	E, IN						

Data File:WP-7.dat

DEPTH	Sample/Int/Type Recovery (feet)	Blows / 6 Inches	N - Value PID Headsnace (nnm)	Analytical Sample	Geologic Column	Stratigraphic Description No samples collected from 0' - 18.0' bgs. See log for MW-27 f Stratigraphic description.	Well/Boring Construction	D Black si pr (2.5' ag bgs) D Black si er (2.5' ag bgs)
						No samples collected from 0' - 18.0' bgs. See log for MW-27 f Stratigraphic description.	or 1* 11 Riss 8.0' T* 11 Riss 8.0'	D Black s r (2.5' ag bgs) D Black si r (2.5' ag bgs)
-5 -5 -						No samples collected from 0' - 18.0' bgs. See log for MW-27 f Stratigraphic description.	or I* II Rise 8.0') Black si er (2.5' ag bgs)
-5 -5 -								
							Cen Grou	nent-Bent ut (0' - 5.5 rated ben
- 10-10 -							7.5 [°]	010 Slot :
							Grad	en (8.0' - le #00 Sil 9 Pack (7. 7 bgs)
- 15-15 -					F	Remarks: NA = Not Applicable/Available; bg	s = below ground surface;	

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Client:	
McKesson	Envirosystems

Site Location:

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Bear Steet Facility Syracuse, NY

Well/Boring ID: WP-8

Borehole Depth: 18' below grade

	z	n Number	Луре	(feet)	nches		pace (ppm)	Sample	olumn		Well/Boring
DEPTH	ELEVATIO	Sample Ru	Sample/Int	Recovery	Blows / 6 I	N - Value	PID Heads	Analytical	Geologic C	Stratigraphic Description	Construction
	-									No samples collected from 0' - 18.0' bgs. See log for MW-27 for Stratigraphic description.	Grade #00 Silica Sand Pack (7.5' - 18.0' bgs) 1* 0.010 Stot Sch.
											Stanless Steel Screen (8.0' - 18.0' bgs).
- 20	-20 -										Steel Bottom Cap
	-										
-											
- 25-	-25 -										-
-	-										-
[- -										-
	-			ľ							-
- 30-	30 -										-
•	-										
-	-										-
- 35-											-
					2					kemarks: NA = Not Applicable/Available; bgs = below gr	ound surface;
E	BLAS ang	LAN	ND, E	SOUC	CK 8	د LE ۱۰	E, IN	IC.			
Projec Data F	t: 260 ile:W	001. P-8	003 dat			 1 r	Femp	late:	j:\rock	ware\logplot2001\logfiles\26001\McKessonWELLS.ldf	Page: 2 of 2

	\sim	Yes	No
Site Name	Mckes	501	
Site No	nondaga		
Town	Nocuse	Yes	No
File Name	1004-11-1	Za Brannas	<u>Nepor</u>
Scanned & e		1	



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