Quarterly Monitoring Report
4th Quarter 2003

L.E. Carpenter & Company
Wharton, New Jersey

USEPA ID No. NJD002168748

January 2004

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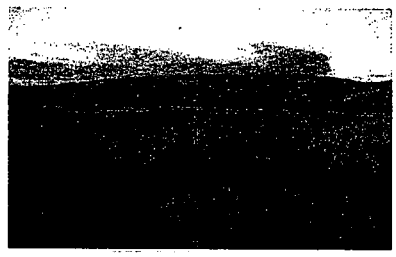

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Section 1
Introduction & Response to Comment

RMT, Inc. (RMT), on behalf of our client, has prepared this Quarterly Monitoring Report for the L.E. Carpenter and Company (LEC) ("site") located at 170 North Main Street, Wharton, New Jersey (Figure 1). Quarterly monitoring events are performed at the site to comply with paragraph 35 of the 1986 Administrative Consent Order (ACO) issued to LEC by the New Jersey Department of Environmental Protection (NJDEP). We provide a summary of activities completed during the fourth quarter of 2003, including but not limited to routine quarterly groundwater monitoring, surface water monitoring, and monthly free product recovery activities. In addition, this report outlines activities scheduled for commencement during first quarter of 2004, including additional activities pertaining to implementation of the NJDEP and USEPA approved MNA workplan dated May 2001 (Revised October 23, 2001) as requested by USEPA in their letter dated January 15, 2004, and installation and sampling of passive diffusion bag (PDB) samplers as requested by NJDEP in their letter dated December 16, 2003.

We have certified this report in accordance with requirements outlined in N.J.A.C 7:26E-1.5 (Appendix A).

RMT conducted the following tasks during the fourth quarter of 2003:

- Monthly mobile free product recovery using enhanced fluid recovery (EFR) techniques in accordance with the NJDEP approval letter dated August 20, 1997 (Ref. Section 2).
- Quarterly groundwater monitoring as required under the ACO (Ref. Sections 3 and 4).
- Surface water sampling at the drainage ditch feature that separates the LEC site from the Air Products property as requested in the NJDEP letter dated May 31, 2002 (Ref. Section 5).
- Various follow-up activities associated with both the lead and free product investigations, and the proposed conceptual remediation plan. (Ref. Section 6).

We provide a discussion of these activities in the referenced sections.

1.1 Response to Regulatory Review of 3rd Quarter 2003 Monitoring Report

We have prepared the following specific responses to EPA's comment letter forwarded to us by NJDEP via email on January 15, 2004. Each response to comment is numbered to correlate with the numbered comments outlined in that letter:

1. The apparent free product volume reported in this report (summarized on Tables 1 and 2) and all previous reports is simply the volume of free product actually residing in the well bore given the well diameter (2-inches for each EFR well) and measured product thickness. Figure 3 shows contours of the measured thickness in each well, and cannot be directly compared to calculated volumes. Calculating apparent volumes is simply another way to evaluate trends of the "apparent" free product data, as described in more detail in Section 2 of this report. We have expanded on our definition of "apparent" free product within this report, and will continue to note this in future reports as well.

2. The MW-3 area has historically contained free product, which is why enhanced fluid recovery wells exist in the area around MW-3. However, the reason for recent increases in measured free product in MW-3 is unknown. No product has been measured in any of the EFR wells surrounding MW-3 since November 2002, and the maximum thickness ever recorded in any of these EFR wells was 0.32 feet (EFR 15; December 1998). While it is possible that there is a continuous "stringer" of free product between the MW-3 area and the MW-11 area (east-central region), it is equally likely that there is an isolated pocket of free product in the MW-3 area, an idea that is supported by little to no product in EFR-15, and no free product found in test pits excavated between the MW-3 area and the MW-11 area. Regardless of the reason for free product fluctuations in MW-3, it is included within the area targeted for expedited LNAPL source removal currently scheduled to begin in late August 2004.

3. LEC will begin quarterly implementation of the MNA workplan during the first quarterly 2004 monitoring event as outlined in this report. However, installation of the 3 new wells will not be finished in time to sample during the first quarterly event. We have tentatively scheduled installation of these wells to take place in April 2004. In addition, as suggested by EPA, not all of the work described in the MNA workplan will be performed until after the expedited LNAPL source removal has taken place, currently scheduled to begin in late August 2004 (i.e., installation of the 4th well described in the workplan and installation of dedicated sampling equipment). After completion of the LNAPL remediation, new wells will be proposed for installation and some added to the MNA sampling protocol (to replace wells destroyed during the remedial excavations). Any new wells not culled out for MNA sampling in the approved MNA workplan will be presented in either the remedial action work plan (RAWP), or addendums to the approved MNA workplan for regulatory review, comment, and approval.

4. As outlined in comment 3, LEC will begin quarterly implementation of the MNA workplan. This will include evaluation of those MW19/Hot Spot 1 wells outlined in the approved MNA workplan and response to MNA workplan comments dated October 23, 2001. Remediation of lead soils (which will be immediately followed by removal of LNAPL source material) is scheduled to begin in August 2004 as requested by NJDEP, and as outlined in the revised schedule LEC submitted to NJDEP and USEPA on January 14, 2004. As noted in that letter, meeting this schedule will in part be dependent upon a regulatory review period for the remedial action work plan (RAWP) of 70 days (plus 15 more days to review responses to comments if necessary). The number and location of new and replacement monitoring wells that will be installed within the area currently planned for

remedial excavations will be detailed in the RAWP, which is currently scheduled to be completed and submitted by April 30, 2004.

5. We have modified Table 6 to show maximum and minimum groundwater elevations. The product thickness cannot be computed by using product and water elevations, but rather, the opposite is true in that the elevations are calculated by subtracting the appropriate measured depths from the surveyed measuring point elevation. Specifically, the product thickness is computed by subtracting the measured (using a liquid interface probe) depth to product from the measured depth to water (in the case of CW-1 for the 3rd quarter event, 7.03 minus 6.65 equals 0.38 feet). As outlined in footnote 2 of Table 6, groundwater elevations for those wells containing free product are corrected using a free product specific gravity determined through free product sampling conducted in October 1999. A more detailed discussion of vertical hydraulic gradients is included in Section 4 of this report.

Section 2
Monthly EFR Activities

2.1 Summary of Activities

In August 1997, the NJDEP approved the Remedial Action Plan (RAP), which described free product removal using enhanced fluid recovery (EFR) for the eastern portion of the subject site (east of the railroad right-of-way). EFR is conducted by applying a vacuum to product recovery wells to primarily remove free-phase product in addition to limited volumes of contaminated groundwater and contaminant vapors within vadose zone and capillary fringe soils. As the result of increased aeration, this procedure enhances any natural biodegradation that may be occurring in the soil and groundwater. The locations of the 28 EFR wells purged during each monthly EFR event and all groundwater monitoring wells are shown in Figure 2.

RMT arranged performance of three EFR events during the fourth quarter of 2003 on October 9th, November 6th, and December 31st. RMT coordinated measurement of the free product thickness in each recovery well (where applicable), followed by EFR. The free-product thickness measured inside well casings and volumes of free product calculated based on the measured thicknesses and the well diameter are referred to herein as "apparent free-product" because free-product in a well is not a measure of actual product thickness or recoverable volumes in the soils adjacent to each well. Tracking total apparent free-product volume and comparing that number to the total volume recovered during an EFR event (as determined by AST gauging with the interface probe) is also a method to determine how much free product was drawn out of the soils surrounding the EFR well casings. RMT observed measurable free product within 12 of the 69 wells monitored on November 17, 2003 (Table 6). Table 1 lists apparent free product thickness measurements recorded during fourth quarter 2003.

RMT's subcontractor, CEMCO, used the recorded free product measurements to determine the placement of the drop pipe that maximized free product recovery volumes produced during each EFR event. Table 1 also provides a cumulative breakdown of EFR specific information such as minimum and maximum free product thickness levels (in feet), associated waste management costs, and extracted product (liquid and vapor phase) and groundwater volumes (in gallons) to date.

During fourth quarter 2003, EFR activities were conducted utilizing a Nortech, Inc. 55B vacuum head apparatus capable of producing a vacuum of 17-inches of mercury (in Hg) at 100 cubic feet per minute (cfm). This unit is connected to a fitted 55-gallon drum, and braced to a mobile 4-wheel drive vehicle. When compared to the previously utilized vacuum trucks, use of this

system has enabled CEMCO to get closer to each individual EFR well head, minimizing potential losses in the system previously experienced due to the use of greater lengths of extraction hose, while maximizing the maneuverability of the drop pipe. Use of this system has also resulted in a more efficient EFR event, minimizing the volume of groundwater extracted. The average ratio of extracted groundwater to free product during the fourth quarter of 2003 was approximately 0.17 gallons/gallon. Between November 1997 to December 1999 (before use of the current extraction method), the ratio of extracted groundwater to free product was 4.7 gallons/gallon.

Once the extraction apparatus is full (approximately 55-gallons), the free product and limited volume of groundwater are transferred to the on-site 550-gallon aboveground storage tank (AST) equipped with secondary containment for satellite storage. The fluids generated during EFR events, including purged groundwater generated during groundwater monitoring activities, are transported off-site by Clean Venture, Inc. (US EPA ID No. NJ0000027193) and managed by Cycle Chem, Inc. (USEPA ID No. NJD002200046) at their facility located in Elizabeth, New Jersey. No waste fluids were transported off-site during fourth quarter 2003.

2.2 Apparent Free Product Trends

The following sections describe apparent product trends in the western, west central, east central, and eastern portions of the free product area. In this section, apparent product refers to the volume (in gallons) of free product occupying the casing of each EFR well. As described in the following sections, "total volume of apparent free product" represents the sum of product volumes from each EFR well within each of the four segregated regions. These data are summarized on Table 2.

The apparent product thickness is not representative of the actual free product thickness or volume that exists within the formation outside of the well casing. RMT previously evaluated actual or "true" free product thickness and volume in our report entitled Free Product Volume Analysis (May 2000). That report estimated a total volume of recoverable free product actually present in the subsurface to be between at 8,000 and 13,000 gallons. In addition, the LNAPL "true" thickness calculated in the May 2000 report (using the Van Genuchten method) for the area comprising all of the regions discussed below averaged 0.265 feet. The calculated "true" thickness also was very similar to the apparent free-product thicknesses in terms of defining 4 separate regions or sub-areas with the most significant amounts of free product. Similarly in this report, to facilitate description of the current distribution of free product, the zone of free product occurrence has been divided into the same four sub-areas. These four areas, discussed from west to east, are:

2.2.1 Western Region of Free Product

In the western portion of the free product area (EFR wells 1, 2, 3, 17, 18, 20, 21, and 28), there was a decrease in the total volume of apparent free product measured during the fourth quarter of 2003 (5.06 gallons in October 2003 down to 3.24 gallons in December 2003). Free product thickness decreased at EFR wells 1, 2, 3, 18, and 21, increased at EFR wells 20 and 28, and remained the same at EFR well 17. In general, the overall apparent free product volume in the western region continues to decrease since LEC initiated EFR in November 1997 (Appendix B).

2.2.2 West-Central Region of Free Product

In the western-central portion of the free product area (EFR wells 4, 5, 6, 7, 19, 22, 23, 24, 25, 26, and 27), the total volume of apparent free product decreased from .99 gallons in October 2003 to 0.74 gallons in December 2003. Free product thickness decreased at EFR wells 5, 19, 25, and 26, increased at EFR wells 6 and 23 and remained the same at EFR wells 4, 7, 22, 24, and 27. The overall apparent free product volume in the west-central region continues to decrease since LEC initiated EFR in November 1997 (Appendix B).

2.2.3 East-Central Region of Free Product

In the east-central portion of the free product area (EFR wells 8, 9, 10, 11, 12, and 13), there was a decrease in the total volume of apparent free product measured during the fourth quarter of 2003 (1.70 gallons in October 2003 down to 1.16 gallons in December 2003). Free product thickness decreased at EFR wells 9, 10, 11 and 13, increased at EFR well 8, and remained the same at EFR well 12. The overall apparent free product volume in the eastern-central region continues to decrease since LEC initiated EFR in November 1997 (Appendix B).

2.2.4 Eastern Region of Free Product

During fourth quarter 2003, no free product was detected in the EFR wells 14, 15, and 16. However, a free product thickness of 1.14 feet (0.74 gallons) was measured in nearby monitoring well MW-3. This represents an increase in the apparent free product for that well compared to the 3rd quarter 2003 results. The increase in apparent free product for this location is not well understood, and could be the result of any number of reasons, for example fluctuating water table or instrument error when recording field readings. It is not likely that increased volumes migrating from the area of larger mass to the west is causing increased apparent thickness volumes in MW-3 because no product can be measured in the EFR well #15, which is located between MW-3 and the larger mass of free product to the west (east-central region), and no free-phase product was found in

the two test trenches excavated between the MW-3 and the larger east-central mass of free product. Regardless of the actual reason, this area around MW-3 is included in the current remediation plan for removal of free product via excavation.

2.2.5 Site Total Apparent Free Product Area

In general, the total apparent free product trend chart indicates a general decrease in the apparent free product volumes existing within on-site wells. A cumulative breakdown of free product thickness and apparent free product volumes specific to each region is presented in Table 2. Additionally, trend charts for each of the four free product regions, and for the site as a whole, that graphically display apparent free product volume fluctuations over time are presented in Appendix B. Figure 3 shows iso-thickness contours and the lateral extent of apparent free product on-site during fourth quarter 2003. This figure incorporates the apparent free product thickness measurements from the groundwater monitoring event conducted by RMT on November 17, 2003 and the pre-EFR event measurements obtained by CEMCO on November 6, 2003.

2.3 Recovered Free Product Volume Estimates

After the completion of each EFR event, the total volume of extracted fluid was determined by gauging the 55-gallon vacuum head drum previously mentioned in Section 2.1 with an oil/water interface probe. The drum was allowed to stabilize for one hour prior to gauging to allow for separation of emulsified product resulting from aggressive recovery prior to gauging. Gauging was conducted on a level surface and recorded thickness was converted to volumes based on a conversion of 1.65 gallons per inch of fluid thickness in the 55-gallon drum. Recovered liquid free product volume was determined by subtracting the volume of water from the total fluid volume collected in the 55-gallon drum. Vapor phase product volume was estimated based on vacuum head airflow (in cfm) and vented contaminant concentrations (in ppm) obtained during extraction at each EFR well. The volume (combined liquid and vapor phase) of free product extracted during each month's EFR event is presented in Table 3.

The total extraction volume (measurable free product, product vapor, and groundwater) during fourth quarter 2003 was 73.01 gallons. Approximately 62.69 gallons of that amount were measurable free product as determined by vacuum head drum gauging and vapor phase volume calculations, and 10.32 gallons were groundwater. Since initiation in December 1997, on-site EFR activities have removed approximately 15,093 gallons of total fluids, of which, approximately 3,906 gallons were measurable free phase product. Based on historical modeling data (Ref. Section 2.2), approximately 4,094 to 9,094 gallons of recoverable free product remains in the ground. Tables 1, 2, and 3 contain a complete breakdown of EFR related information.

Section 3
Quarterly Groundwater Monitoring

RMT conducted groundwater monitoring activities in the fourth quarter of 2003 on November 17th, 18th, 19th and 20th. In the past, we performed groundwater monitoring in accordance with the procedures contained in the NJDEP's *Field Sampling Procedures Manual* dated May 1992. However, in second quarter 2002 we initiated groundwater monitoring using the low-flow methodology outlined in our May 2001 Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater (MNA workplan). The MNA workplan was approved by NJDEP on January 24, 2002. Although the sampling was performed using low-flow methods, the remaining parts of the MNA workplan have not yet been initiated, although a QED bladder pump system with disposable Teflon bladders (as described in the approved MNA workplan Quality Assurance Project Plan (QAPP)) was used as dedicated monitoring equipment to collect groundwater samples at LEC. However, per the comments received from USEPA on January 15, 2004 regarding their review of the 3rd quarter 2003 monitoring report, LEC will begin implementing portions of the MNA workplan beginning with the 1st quarterly sampling event in 2004. Locations of the quarterly monitoring wells are shown on Figure 2.

Monitoring wells MW-4, MW-11D(R), MW-14S, MW-14I, MW-15S, MW-15I, MW-17S, MW-21, MW-22(R), and MW-25(R) were sampled utilizing the low-flow methodology outlined in the QAPP, presented in Appendix A of the approved MNA workplan. Specifically, RMT used a QED bladder pump to remove groundwater at a low rate (average of 0.3 L/minute). Before sampling the wells we measured field parameters until they stabilized to obtain a representative sample of the formation water for laboratory testing. Monitoring well sampling data for the fourth quarter of 2003 is presented in Appendix C. Once the field parameters in each well stabilized, or following adequate purging if stabilization could not be achieved, samples were collected from the Teflon-lined polyethylene tubing of the bladder pump. RMT submitted the samples to Lancaster Laboratories, Inc. (Lancaster), located in Lancaster, Pennsylvania for benzene, toluene, ethylbenzene, xylenes (BTEX) and bis (2-ethylhexyl) phthalate (DEHP) analysis per the current groundwater monitoring protocol outlined in Table 4.

A sample duplicate, a field blank, a trip blank and a rinsate blank were collected to satisfy Quality Assurance/Quality Control (QA/QC) requirements. A summary of the quarterly groundwater monitoring QA/QC requirements for the LEC site is also outlined in Table 4. The

trip blank was prepared by the laboratory and remained with the sample containers until the samples were returned to the laboratory. The duplicate was collected from monitoring well MW-22 (duplicate sample No. Dupe-01) and analyzed for BTEX and DEHP. The rinsate blank was collected by circulating triple distilled water through the cleaned bladder pump assembly to verify that the decontamination procedures were adequate. Any sampling equipment used at each well was decontaminated prior to each use utilizing an environmental detergent (Alconox) and clean water wash followed by a distilled water rinse. The field (atmosphere) blank was collected during the sampling event by opening a bottle of unpreserved de-ionized water provided by the laboratory, leaving the bottle open during the sampling of one well, and pouring that water directly into clean sample bottles with added preservative also provided by the laboratory.

A comparison of the results of the chemical analyses to New Jersey Class IIa Groundwater Quality Standards (NJGWQS) is outlined in Table 5. The presence of BTEX and/or DEHP was not detected at concentrations above NJGWQS in samples collected from MW-11D(R), MW-14S, MW-14I, MW-15S, MW-15I, MW-17S, MW-21, and MW-25(R). The presence of DEHP was detected in MW-4 and MW-22(R) at concentrations of 67 μg/L and 2200 μg/L respectively. The concentrations detected at both MW-4 and MW-22(R) exceed the NJGWQS for DEHP of 30 μg/L. In addition, at MW-22(R), total xylenes were detected at a concentration of 940 μg/L, which also exceeds the NJGWQS of 40 μg/L.

Even though concentrations of total xylenes and DEHP at MW-22(R) have consistently exceeded NJGWQS, concentrations of these constituents at downgradient monitoring location MW-14S have never exceeded NJGWQS. In addition, contaminant concentrations at monitoring location MW-25(R) (also located downgradient from MW-22R at certain times of the year) have not exceeded NJGWQS since second quarter 1997, and contaminant concentration further downgradient at MW-21 have never exceeded NJGWQS since sampling began at this location in first quarter 1999.

It is important to note again that there is no discernable trend of DEHP concentrations in MW-11D(R) when the data are viewed in total from 1999 through 2003 (Table 5; Appendix D). In addition, as we have described in previous reports, DEHP has been problematic in terms of laboratory analytical results because it is ubiquitous in the environment, and it is also a common laboratory contaminant. Based on the following facts: 1.) DEHP has often been found in laboratory blanks, 2.) past difficulties with field decontamination of sampling equipment, and 3.) the very strong upward vertical hydraulic gradient (Table 6), sporadic past DEHP detections in MW-11D(R) are false positives. LEC has performed a variety of tasks in order to eliminate or minimize production of false positive data. The first steps we took were to institute more rigid field decontamination procedures in order to minimize potential field cross-

contamination, as well as changing to in-field use of triple-distilled decontamination water. This was followed by initiation of low-flow sampling methodology (March 2002) in order to minimize amounts of suspended particulate matter (*e.g.* clay particles) and stagnant water within the well riser.

Despite these actions, laboratory cross-contamination of DEHP still proved to be a concern in monitoring events through fourth quarter of 2002. As a result RMT evaluated several laboratories in terms of their in-house program to minimize DEHP as a common lab contaminant. As was mentioned in the fourth quarter 2002 monitoring report, beginning with first quarter 2003 Lancaster Laboratories, Inc., a New Jersey certified laboratory, performed all laboratory analyses. As shown in the fourth quarter 2003 analytical results provided by Lancaster, DEHP was not detected above the method detection limit (MDL) of 1.0 µg/L in either the laboratory blanks nor in any of the Quality Assurance/Quality Control (QA/QC) samples taken during this event.

LEC will continue to sample groundwater from MW-11D(R) and test it for the presence of DEHP. However, MW-11I(R) and MW-11D(R) will be properly abandoned prior to initiation of the free product remediation, currently scheduled to begin in late August 2004. This should satisfy the concerns of potential future upward trends in concentrations for the deep well expressed in the NJDEP letter received on December 16, 2003.

Section 4
Water Table Elevations

On November 17, 2003, RMT measured static groundwater levels from 75 different locations throughout the site (Table 6). RMT used these data to calculate groundwater elevations and evaluate the groundwater flow pattern in the shallow aquifer system.

Figure 4 displays the site-wide shallow groundwater potentiometric surface, and indicates that groundwater flow direction in the shallow aquifer east of the rail spur is similar to that observed historically (generally toward the east). Washington Forge Pond acts as a constant head boundary that provides the driving head for both shallow and deep groundwater flow. As a result areas of the site exhibit upward vertical gradients, while the drainage ditch acts as a discharge zone, as does the downstream portion of the Rockaway River. The portion of the Rockaway River south of and immediately adjacent to the site is often a losing reach, particularly in drought periods when the groundwater levels beneath the site are depressed a few feet and a gradient from the River into the site occurs. As one moves downstream the River oscillates between losing and gaining and the flow regime is often difficult to define.

Also exhibited in Figure 4 are the effects caused by the presence of the drainage ditch. The drainage ditch acts as a local groundwater "sink", and shallow groundwater flow direction from a large portion of the site is controlled by the drainage ditch.

The regional groundwater "sink" for this area is the Rockaway River, and it is this feature that causes the strong upward vertical gradients observed for all of the on-site well clusters. For example, the water elevation in MW-11D (R) is 2.88 feet higher than the corrected water elevation for its' shallow counterpart MW-11S (Table 6). Similarly, data collected during the 4th quarter sampling event shows the water elevation in MW-14I is 0.5 feet higher than the water elevation for its' shallow counterpart MW-14S. EPA noted in their January 15, 2004 letter that the vertical gradient measured at the well 14 cluster for the 3rd quarter 2003 event was downward, not upward. However, when examining the levels measured just prior to sampling each of these wells (see Appendix C of the 3rd quarter report) an upward vertical gradient is apparent (the field procedure is to measure water levels in all the wells before sampling occurs, but water levels are measured again in every well that is sampled). It is most likely that the initial measurements at the MW-14 well cluster were collected too rapidly in the field without allowing enough time for the newly opened well to equilibrate with atmospheric pressure. Historical water level data for this and other locations of well clusters confirms the predominant upward vertical gradients across the site (Figures 9, and 10).

Historically, shallow groundwater at the southern edge of the LEC site often appears to be recharged directly by the Rockaway River and flows towards the site before turning eastward toward the drainage ditch and the narrow area between the Air Products property and the Rockaway River known as the Wharton Enterprises property. At other times, flow at the southern edge of the site appears to head east-northeast parallel to the Rockaway River (Figure 4). Shallow groundwater on the Air Products property flows southeast, south, and southwest towards the drainage ditch.

The potentiometric surface contours were generated using the measured fluid level elevations in site shallow wells. We also used surface water elevations from points in the Rockaway River, the drainage ditch and the Washington Forge Reservoir to control and interpret the groundwater elevation contours.

Section 5
MW19/Hot Spot 1 Groundwater Monitoring

This section summarizes the results of a groundwater monitoring event conducted in the MW-19/Hot Spot 1 area on November 19 and 20, 2003. In the May 31, 2002 letter, NJDEP requested that the two piezometers (GEI-2S and GEI-2S) located in the vicinity of the MW19/Hot Spot 1 area also be evaluated to determine the presence of contaminants of concern. In addition, during follow-up conversations with the NJDEP and confirmatory emails, RMT was required to incorporate the two piezometers into a comprehensive monitoring event that included all monitoring wells currently installed in the MW19/Hot Spot 1 area. This most recent round of sampling in the MW19/Hot Spot 1 area was recommended by USEPA in their email dated November 4, 2003. LEC confirmed incorporation of this area in the 4th quarter 2003 sampling event the same day.

5.1 Monitoring Well Locations

Figure 2 shows the location of all the MW-19/Hot Spot 1 area monitoring wells. Following the installation of MW19-9D, a NJ licensed surveyor surveyed the well and site. In addition, the site was subjected to aerial photography on February 14, 2002 and a site-wide topographic map was constructed from that aerial. Figure 2 incorporates the newly surveyed features and resulting base-map that accurately represents the location of each well, and nearby buildings, utilities, fences, and streets. The surveyor also measured the top of casing elevation for the new and selected existing wells.

5.2 Groundwater Flow

As in previous quarters, groundwater flow in the MW-19/Hot Spot 1 area is generally northwards and bends northeast (Figure 5). Consistent with previous sampling events, the localized flow of shallow groundwater in this area is influenced by the presence of the 24-inch Rockaway River Regional Interceptor Sewer (RRRIS), which is encased in a gravel - lined trench running parallel to Ross Street. Overall flow is controlled by the Washington Forge Pond and the Rockaway River. From a regional flow standpoint, the Rockaway River eventually captures groundwater from MW-19/Hot Spot 1 area, even though it is locally influenced by the RRRIS.

5.3 Delineation of Groundwater Contamination

Table 7 summarizes concentrations of benzene, toluene, ethylbenzene, and xylene (BTEX) and di-ethylhexyl phthalate (DEHP) for all of the MW-19/Hot Spot 1 area groundwater monitoring wells and piezometers GEI-2I and GEI-2S. RMT sampled groundwater from the MW-19/Hot Spot 1 area wells on November 18, 19, and 20, 2003. The November 2003 data also show that concentrations of BTEX and DEHP continue to show a decreasing trend since 1998 in all the monitoring wells. When compared to historical results, the concentrations of BTEX and DEHP showed a significant decrease at MW19-5. The November 2003 results for MW19-5 were orders of magnitude lower than previous results. To verify that these results were not anomalous, RMT resampled MW19-5 along with GEI-2S on December 18, 2003. The December 2003 results verified the significant decrease of contaminants in MW19-5. Low levels of toluene were detected (J-qualified estimated value) in GEI-2S, while all other contaminants were non-detect. Corresponding analytical laboratory reports are presented in Appendix F. Lancaster Laboratories of Lancaster, Pennsylvania performed all laboratory analyses.

The New Jersey groundwater quality standard (NJGWQS) for DEHP is not exceeded in any well except at one downgradient monitoring location. Benzene and total xylenes exceed the NJGWQS in groundwater collected from MW19-7. None of the remaining groundwater monitoring wells downgradient from MW19 exceeds the NJGWQS for any of the contaminants of concern. MW19 is located close to the former 10,000-gallon underground storage tanks (UST's E-3 and E-4) that likely were responsible for releasing some of the waste DEHP and BTEX constituents. However, these former UST's are no longer a source for DEHP and BTEX contamination in this area because LEC removed them in 1991 along with any impacted soils. In addition, the LEC printing processes and material storage practices that occurred in Bldg 9 that may have resulted in releases of both DEHP and BTEX were stopped in 1987. Finally, there is no free product in this area. Therefore, there no longer appears to be any active primary source for DEHP or BTEX remaining in the MW-19/Hot-Spot 1 area. The decreasing concentrations over time also suggest a lack of ongoing sources of contamination and natural attenuation of dissolved contaminants.

RMT constructed Figure 6 to show isoconcentration contours for total BTEX levels in ppm (mg/L) with respect to the groundwater elevation contours. The distribution of total BTEX defined by the isoconcentration contours is consistent with the groundwater flow direction defined by the groundwater elevation contours. Figures 7 and 8 show the isoconcentration contours for total BTEX in June 2002 and August 2001, respectively. A comparison between Figures 6, 7 and 8 shows that the concentrations of total BTEX greater than 1 ppm occur over a smaller and smaller area from August 2001 to June 2002 to November 2003.

No BTEX and low levels of DEHP were detected in MW19-9D (Table 7). This shows that there is no migration of these constituents downward and to the north under Ross Street and the regional interceptor sewer. In addition, the lack of downward migration of contaminants is evidenced by the hydraulic data we discuss below.

Table 8 lists monitoring well surveyed reference elevations, water level measurements, and groundwater elevations. Although NJDEP/EPA retracted their earlier requirement to pair a shallow well with MW19-9D, we installed it only about 12 feet north of MW19-6 because of access issues. The driller had to conform to OSHA requirements and maintain a safe distance from the overhead power lines that overhang the north side of Ross Street. As previously stated the on-site NJDEP representative approved the well location in the field before drilling commenced.

The closeness of MW19-6 and MW19-9D allows a general comparison between groundwater elevations versus screened interval and to evaluate the vertical gradient. The hydraulic head at MW19-9D is 0.62 feet higher than at MW19-6, indicating a significant upward vertical gradient. The vertical distance between the middle of the MW19-6 and the MW19-9D well screens is 15 feet (Table 8). Given the difference in hydraulic head between the two wells, the upward vertical hydraulic gradient is about an order of magnitude greater than the horizontal hydraulic gradient measured for this area.

An upward vertical gradient is consistent with all other deep/shallow well clusters across the site. These findings are consistent with an earlier RMT prediction of an upward vertical gradient for this location based on nearby piezometers GEI-2I and GEI-2S, and other upward vertical gradients observed across the site. The upward gradient in the MW-19/Hot Spot 1 area is likely related to its location in the Rockaway River Valley. The Washington Forge Pond (at an elevation of approximately 640 ft), the Rockaway River, and the gravel base that holds the regional sewer line adjacent to the MW-19/Hot Spot 1 area (Figure 5), all act as constant head boundaries comprising a regional aquifer discharge area.

The groundwater flow directions and contaminant distributions both show that the current group of wells are adequate to monitor groundwater quality within and downgradient from the MW-19/Hot Spot 1 area at LEC. LEC will conduct future groundwater monitoring in this area as part of the site-wide quarterly groundwater-monitoring program.

Details of our recommendations for future continued monitoring in this area are included in our May 2001 workplan for evaluating Monitored Natural Attenuation (MNA) for dissolved phase constituents. As discussed further below, LEC will begin implementing the MNA workplan in this area per EPA's January 15, 2004 letter commenting on the 3rd quarter 2003 monitoring report. As part of that implementation, groundwater monitoring in this area will now occur on

a quarterly basis along with the site-wide groundwater-monitoring program. Therefore, monitoring will again take place for the MW-19/Hot Spot 1 area in February 2004. The sampling and testing that will be done in this area will include those parameters outlined in the May 2001 MNA workplan that was revised on October 23, 2001 and approved by NJDEP on January 24, 2002. The new proposed monitoring well MW-19-10 will be first sampled during the 2nd quarter 2004 event. This will allow for well installation and the two week (14 day) stabilization and equilibration period required by Chapter 7H(5)(c) of the *NJDEP Field Sampling Procedures Manual May 1992* to occur prior to sampling.

Section 6
Drainage Channel Surface Water Sampling

As part of the fourth quarter 2003 event, RMT sampled the eastern drainage channel that separates the adjacent Air Products facility from the LEC site and the adjacent Wharton Enterprises property. This sampling was conducted at the request of NJDEP as outlined in their letter dated May 31, 2002. As requested in the NJDEP letter dated November 4, 2002, grab sampling was performed in the three locations along this channel (SW-5, SW-7 and SW-8). Sampling started with the downstream location SW-8 and proceeded to upstream location SW-7. Similar to previous sampling event results, the drainage ditch influences shallow groundwater flow direction as described in Section 4.

BTEX compounds were not detected at either SW-5 or SW-7. The surface water sample collected at SW-8 contained very low levels of total xylenes (1.20 µg/L). Only surface water location SW-7 contained very low levels of DEHP (3.0 µg/L). Both detections are "J-qualified" meaning they were estimated values falling between the MDL and the Limit of Quantitation (LOQ). These concentrations are below the surface water quality criteria for toxic substances outlined in N.J.A.C 7:9B-1.14 and NJGWQS. Historical and current surface water sampling results are summarized in Table 9.

These data show that BTEX and DEHP constituents dissolved in groundwater are naturally attenuating, and that migration of the these primary constituents of concern is not taking place at levels above applicable standards in surface water within the drainage channel nor in groundwater beyond MW-25(R) located on the Wharton Enterprises property. In other words, the area of on-site free product results in an aerially limited downgradient "halo" of dissolved phase contaminants in groundwater that make up a stable (non-expanding) plume. Future site monitoring activities will include surface water sample collection at the same three locations.

Section 7
Site Investigation and Remedial Actions

The following section briefly outlines additional activities and scope(s) of work performed at various on-site areas of environmental concern during fourth quarter 2003 and provides a brief discussion of activities anticipated for completion during first quarter 2004.

7.1 Free Product

In December 2001, RMT conducted a subsurface investigation to further investigate viable free product remedial technologies as outlined in the NJDEP approved workplan and amendment entitled Workplan to Evaluate Free Product Remedial Strategies (RMT, November 2001), and Amendment to Workplan to Evaluate Free Product Remedial Strategies (RMT, November 2001). Results of this investigation were submitted to USEPA and NJDEP in the document entitled Findings & Recommendations Regarding a Conceptual Free-Product Remediation Strategy in March 2002. NJDEP and USEPA comments were provided in the NJDEP letter dated July 26, 2002. Written responses to the comments outlined in the July 26, 2002 letter were provided to NJDEP and USEPA in the RMT response letter dated October 22, 2002. No written regulatory response has been provided to date, but all of the issues described in the comments and response letters were addressed at the meeting held in Edison New Jersey on September 19, 2002. Both the NJDEP and USEPA verbally approved the conceptual approach to free product remediation during that meeting. As such, RMT on behalf of LEC is committed to the preparation of a RAWP outlining both the engineering and design of the conceptual approach, and the various requirements (*i.e.*, plans, permits and approvals) needed to implement the remedy on-site. As was requested in the NJDEP letter dated January 22, 2003, RMT submitted on March 4, 2003 a detailed schedule of all activities anticipated through remedial mobilization tentatively set at August 31, 2004. The schedule was revised and re-submitted on January 14, 2004. Remedial mobilization is still tentatively set at August 31, 2004. Implementation of the source removal strategy is pending the preparation and final approval of a remedial action work plan (RAWP), currently scheduled for submittal on April 30, 2004.

7.2 Lead in Soils

In November 2001, RMT conducted a subsurface investigation as outlined in the Revised Workplan for Delineating and Characterizing Elevated Lead Concentrations in Soil (RMT, May 2001) to delineate the extent of on-site lead contamination in soils. Results of this investigation were submitted to USEPA and NJDEP in the document entitled Nature and Extent of Lead in

Soils and Groundwater in March 2002. NJDEP and USEPA comments were provided in the NJDEP letter dated July 26, 2002. Written responses to the comments outlined in the July 26, 2002 letter were discussed at the September 19, 2002 meeting and also provided to NJDEP and USEPA in the RMT response letter dated October 22, 2002. As was required in the NJDEP letter dated January 22, 2003, RMT on behalf of LEC, submitted the report entitled Focused Feasibility Study Lead-Impacted Soil Remediation (RMT, February 2003) so that an Explanation of Significant Difference (ESD) could be prepared by NJDEP and USEPA documenting and approving this change in the current ROD remedial approach for lead soils from excavation and off-site disposal to excavation and on-site beneficial reuse. NJDEP and USEPA comments were received on July 3, 2003. On behalf of LEC, RMT attended a meeting with NJDEP and USEPA on October 7, 2003 to discuss the draft FFS comments. Based on the results of that meeting, LEC submitted a letter formally requesting withdrawal of the FFS on December 9, 2003. That letter stated that lead contaminated soils would be remediated by implementing the original ROD alternative of removal and off-site disposal, except that soils would be removed down to a level of 400 ppm (residential cleanup criterion) instead of the ROD-mandated cleanup level of 600 ppm (industrial cleanup criterion). The withdrawal of the lead FFS was approved by NJDEP and EPA in a letter dated December 23, 2004. Procedures for staging and removal of the lead-contaminated soils to an off-site disposal facility will be detailed in the RAWP and are proposed for concurrent remediation along with the LNAPL source area.

7.3 PDB Sampling in Drainage Ditch and River

As outlined in the letter dated December 16, 2003, NJDEP continues to recommend sampling in the drainage ditch and Rockaway River using Passive Diffusion Bags (PDB). The objective for collecting these samples is to provide additional assurance that constituents of concern are not migrating into the Rockaway River and the drainage ditch. It is important to note here that data reported herein show that some very minimal (at detection limit) concentrations are found in surface water samples collected quarterly from the drainage ditch (see Section 6). However, NJDEP seeks verification that sub-ditch flow is not expediting migration of constituents at greater distances and higher concentrations than currently detected in surface water samples. With respect to potential contaminant migration into the Rockaway River, a lack of such migration is currently supported by interpretations of predominant groundwater flow direction, the distance between the free product area and the river, and historical surface water sample results. However, shallow groundwater flow in the LEC area is quite variable due to changes in seasonal rainfall, vertical pressure gradient changes, and the hydrophobic nature of organic-contaminated soils in the capillary fringe of the free product zone. Therefore some contaminated groundwater, especially in areas very close to the river (e.g., MW-4 which is presumably sourced from a former hot-spot), could be contributing contaminants to the river at certain times of the year. The PDB sampling methodology was discussed at the October 7, 2003

meeting with NJDEP, and during a telephone call with NJDEP on January 20, 2004. During that call, the number and locations for PDB samplers shown on Figure 4 were agreed upon. LEC anticipates installing the PDB samplers at the seven locations outlined on Figure 4 some time in April 2004, and collecting the samplers for VOC testing during the 2nd quarterly event tentatively scheduled to take place in May 2004.

7.4 Implementation of Monitored Natural Attenuation Work Plan

In a letter dated January 15, 2004, USEPA requested LEC to begin implementation of the May 2001 MNA workplan. LEC will begin implementing portions of the MNA workplan beginning with the 1rst quarterly sampling event in 2004. Sampling and testing of the wells coded in red color on Figure 4 will take place per the approved workplan beginning with the quarterly event currently scheduled to take place in late February 2004. No MNA work will be completed for that portion of the site where remediation of remaining source material will take place, which is currently scheduled to begin in late August 2004. Installation of three wells shown on Figure 4 (MW-19-10 in the MW-19/Hot Spot 1 area, and MW-27 and MW-28 in the Wharton Enterprises area) is tentatively scheduled to take place before the second 2004 quarterly event. The new wells would then be sampled for the first time during that the 2nd quarter 2004 event.

Tables

Table 1
L.E. CARPENTER - Wharton, New Jersey
Free Product Recovery - EFR Well # 1 - 28

EFR Event Date	Development	EFR #1	EFR #2	EFR #3	EFR #4	EFR #5	EFR #6	EFR #7	EFR #8	EFR #9	EFR #10	EFR #11[10]
Well No.	21-Nov-97 Feet of Product	09-Dec-97 Feet of Product	07-Jan-98 Feet of Product	22-Jan-98 Feet of Product	17-Feb-98 Feet of Product	13-Mar-98 Feet of Product	27-Mar-98 Feet of Product	24-Apr-98 Feet of Product	29-May-98 Feet of Product	30-Jun-98 Feet of Product	31-Jul-98 Feet of Product	24-Aug-98 Feet of Product
EFR-1	1.64	1.59	1.94	0.96	2.48	0.88	0.94	1.42	1.56	2.11	1.29	1.22
EFR-2	1.55	1.50	1.86	0.09	2.20	2.98	2.92	2.65	2.44	1.78	1.12	1.09
EFR-3	0.86	1.02	1.27	--	1.58	1.19	0.09	0.24	0.19	0.77	0.72	0.93
EFR-4	1.03	2.27	0.54	0.07	0.80	--	--	--	--	0.03	0.38	1.23
EFR-5	4.03	3.74	4.25	0.92	3.29	3.99	1.71	2.71	2.02	1.86	2.38	2.52
EFR-6	0.72	1.00	1.24	--	2.27	1.71	1.17	2.23	1.55	1.56	1.96	1.56
EFR-7	0.17	0.09	0.16	--	--	--	--	--	--	0.02	0.02	0.03
EFR-8	0.00	0.00	0.00	--	0.08	--	--	--	--	0.03	0.04	0.08
EFR-9	0.00	1.10	1.79	1.15	0.16	3.08	0.08	0.07	0.11	0.29	0.61	0.98
EFR-10	5.20	5.80	6.42	2.84	7.47	7.06	6.05	6.71	5.47	5.68	4.94	4.52
EFR-11	3.07	4.04	4.29	5.64	4.47	4.32	4.87	5.21	5.79	6.08	4.73	4.47
EFR-12	0.04	0.09	0.00	--	0.07	--	--	--	0.02	0.28	0.22	0.28
EFR-13	0.48	0.56	1.33	0.05	1.28	1.07	1.07	0.57	--	0.90	0.56	0.48
EFR-14	0.10	0.16	0.00	--	--	--	--	--	--	--	-	--
EFR-15	0.09	0.12	0.27	--	0.06	--	--	--	--	0.03	0.02	0.03
EFR-16	0.00	0.00	0.00	--	--	--	--	--	--	--	-	--
EFR-17	0.04	0.17	1.58	0.89	0.17	0.08	--	0.09	--	0.02	0.97	0.29
EFR-18	0.10	0.10	0.09	--	--	--	--	--	--	0.01	0.08	0.14
EFR-19	0.54	2.90	1.89	0.49	1.95	1.68	1.44	0.88	0.44	0.65	0.90	0.42
EFR-20	0.40	0.34	0.95	0.47	0.27	--	--	0.04	0.24	0.97	0.65	0.69
EFR-21	2.36	2.40	2.71	2.74	2.74	4.14	3.97	4.23	3.98	3.29	1.97	1.87
EFR-22	3.78	4.10	0.05	4.81	3.40	4.69	3.42	1.82	1.22	0.96	2.96	2.87
EFR-23	0.00	0.06	0.06	--	0.02	--	--	--	--	0.05	0.11	0.09
EFR-24	0.00	0.00	0.00	--	--	--	--	--	--	--	-	--
EFR-25	2.95	3.00	3.55	0.26	4.15	3.11	0.72	0.82	0.79	0.78	0.60	0.41
EFR-26	2.20	2.05	2.66	0.29	2.30	2.12	1.43	1.32	1.95	1.21	2.06	1.58
EFR-27	0.15	0.02	2.71	0.02	0.74	--	--	0.03	--	0.02	0.39	0.46
EFR-28	2.20	2.30	1.78	0.46	2.60	3.20	3.48	4.40	3.16	2.91	1.47	1.78
MIN (ft)	0.00	0.00	0.00	0.02	0.02	0.08	0.03	0.03	0.02	0.01	0.02	0.03
MAX (ft)	5.20	5.80	6.42	5.64	7.47	7.06	6.05	6.71	5.79	6.08	4.94	4.52
Average (ft)	1.20	1.44	1.55	1.17	1.92	2.79	2.21	2.01	1.94	1.25	1.22	1.23
Total Free Product (ft)	39.59	40.90	49.36	19.94	44.05	44.68	33.10	36.24	31.07	31.16	30.38	30.79
Total Standing Free Product Volume (gal)	21.60	25.53	27.79	12.78	28.24	28.64	21.22	23.23	19.92	19.97	19.47	19.70
Estimated Total Free Product Removed (gal) [1] *(Liquid and Vapor Phase Free Product Volume)*	315.00	250.00	210.00	80.00	120.00	130.00	100.00	110.00	95.00	105.00	75.00	55.00
Estimated Total Fluids Removed (gal) *(Liquid Phase Free Product Volume plus Groundwater Extraction Volume) as of Jan 2000*												
Vapor Phase Free Product Extraction Volume (gal) *as of Jan 2000*												
Liquid Phase Free Product Extraction Volume (gal) *as of Jan 2000*												
Groundwater Extraction Volume (gal) per each EFR Event [7] *as of Jan 2000*												
Total EFR Extraction Volume (gal) (Total Volume: *free product + groundwater + product vapor)*	2350.00	1410.00	375.00	256.00	914.00	800.00	989.00	409.00	390.00	561.00	211.00	220.00
Estimated Volume Removed Resulting from Drum Purging (GW purge water) *if applicable* [8]	-	-	-	-	-	338	150	600	70	110	71	-
Total Volume Removed from Site (gal) *(Manifested volume)* [9]	2,350	1,410	375	256	314	638	489	1,009	460	671	282	220
Cumulative Total Free Product Removed (gal)	315	565	775	855	975	1,105	1,205	1,315	1,410	1,515	1,591	1,646
Extraction, Transportation & Disposal Cost [2]	$ 3,276.37	$ 2,742.62	$ 1,130.50	$ 1,190.50	$ 1,219.12	$ 1,491.87	$ 1,541.31	$ 2,088.49	$ 1,240.75	$ 1,347.68	$ 1,824.62	$ 1,838.93
Unit Cost per gal [3]	$ 1.59	$ 1.95	$ 3.01	$ 4.42	$ 3.88	$ 2.24	$ 3.15	$ 2.09	$ 2.70	$ 2.01	$ 4.70	$ 8.36
State Manifest Document Number	NJA2786096	NJA2786105	NJA2787908	NJA2785985	NJA2785830	NJA2785548	NJA2786541	NJA2787847	NJA2788596	NJA2970479	NJA2988712	NJA2988448

EFR Event Date	EFR #12	EFR #13	EFR #14	EFR #15	EFR #16	EFR #17	EFR #18	EFR #19	EFR #20	EFR #21
Well No.	17-Sep-98 Feet of Product	22-Oct-98 Feet of Product	20-Nov-98 Feet of Product	18-Dec-98 Feet of Product	13-Jan-99 Feet of Product	16-Feb-99 Feet of Product	24-Mar-99 Feet of Product	19-Apr-99 Feet of Product	19-May-99 Feet of Product	22-Jun-99 Feet of Product
EFR-1	1.71	1.58	1.71	1.67	0.63	1.79	3.68	1.19	1.09	1.15
EFR-2	1.21	1.29	1.51	1.41	0.95	1.40	2.42	1.48	1.22	0.92
EFR-3	1.03	1.01	1.19	1.18	1.14	1.01	1.63	0.38	0.25	0.86
EFR-4	2.40	2.17	1.75	1.79	0.73	0.10	0.14	0.08	0.05	0.03
EFR-5	2.38	2.52	2.19	2.28	2.68	3.47	5.15	2.65	2.61	2.65
EFR-6	1.42	1.25	1.29	1.38	0.49	0.84	0.88	0.61	1.07	1.16
EFR-7	0.07	0.05	0.20	0.16	0.02	0.04	0.04	0.07	0.02	0.08
EFR-8	0.18	0.09	0.07	0.03	0.12	0.00	0.03	0.03	0.03	0.09
EFR-9	1.23	1.31	1.26	1.86	0.74	0.49	0.06	0.11	0.32	0.49
EFR-10	4.34	4.38	3.98	3.99	3.68	5.79	5.52	4.97	4.23	3.71
EFR-11	3.95	4.06	3.65	3.52	2.42	4.69	2.84	2.02	2.48	3.26
EFR-12	0.24	0.15	0.29	0.17	0.04	0.11	0.05	0.02	0.02	0.10
EFR-13	0.66	0.62	1.19	1.30	0.22	1.19	0.15	0.49	0.50	0.44
EFR-14	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00
EFR-15	0.09	0.12	0.12	0.32	0.11	0.07	0.01	0.01	0.00	0.00
EFR-16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EFR-17	0.46	0.56	0.71	0.59	0.26	0.08	0.06	0.06	0.08	0.12
EFR-18	0.48	0.68	0.28	1.06	0.56	0.11	-	0.06	0.16	0.46
EFR-19	1.66	1.95	2.31	2.44	0.82	1.69	0.52	0.44	0.52	1.10
EFR-20	0.79	1.24	1.85	2.11	0.65	1.33	0.88	0.43	0.89	0.97
EFR-21	1.86	1.77	1.67	1.62	1.21	1.49	2.52	2.35	1.49	1.46
EFR-22	2.97	2.89	2.58	2.27	2.06	0.84	0.34	0.95	1.39	1.93
EFR-23	0.27	1.03	3.07	2.29	1.55	0.91	0.47	0.22	0.25	0.45
EFR-24	0.00	0.03	0.12	0.14	0.33	0.05	0.00	0.00	0.00	0.08
EFR-25	0.29	0.41	1.33	1.58	1.05	1.75	1.19	1.08	0.76	0.54
EFR-26	1.17	1.24	1.08	1.09	0.78	0.55	0.45	0.75	1.29	1.28
EFR-27	1.49	0.54	0.47	0.51	0.09	0.12	0.00	0.00	0.02	0.03
EFR-28	4.34	1.89	1.79	1.74	1.03	1.29	1.71	1.65	1.46	1.25
MIN (ft)	0.03	0.03	0.07	0.03	0.02	0.04	0.00	0.00	0.00	0.00
MAX (ft)	4.34	4.38	3.98	3.99	3.68	5.79	5.15	4.97	4.23	3.71
Average (ft)	1.36	1.34	1.47	1.48	0.97	1.25	1.22	0.79	0.79	0.88
Total Free Product (ft)	33.90	34.92	38.30	38.35	25.27	31.14	31.84	22.00	22.20	24.54
Total Standing Free Product Volume (gal)	22.04	22.70	24.90	24.93	16.43	20.24	20.70	14.30	14.43	15.95
Estimated Total Free Product Removed (gal) [1] *(Liquid and Vapor Phase Free Product Volume)*	60.00	15.00	25.00	51.00	23.00	74.00	40.00	59.24	47.20	89.51
Estimated Total Fluids Removed (gal) *(Liquid Phase Free Product Volume plus Groundwater Extraction Volume) as of Jan 2000*										
Vapor Phase Free Product Extraction Volume (gal) *as of Jan 2000*										
Liquid Phase Free Product Extraction Volume (gal) *as of Jan 2000*										
Groundwater Extraction Volume (gal) per each EFR Event [7] *as of Jan 2000*										
Total EFR Extraction Volume (gal) (Total Volume: *free product + groundwater + product vapor)*	329.00	212.00	120.00	256.00	234.00	498.00	683.00	904.76	360.00	564.26
Estimated Volume Removed Resulting from Drum Purging (GW purge water) *if applicable* [8]	110	-	-	110	-	235	-	139	-	-
Total Volume Removed from Site (gal) *(Manifested volume)* [9]	439	212	120	256	234	733	683	1,044	353	538
Cumulative Total Free Product Removed (gal)	1,706	1,721	1,746	1,797	1,820	1,894	1,934	1,993	2,040	2,079
Extraction, Transportation & Disposal Cost [2]	$ 1,389.18	$ 915.25	$ 963.25	$ 979.00	$ 1,156.62	$ 1,641.56	$ 1,709.44	$ 2,049.75	$ 930.31	$ 1,598.13
Unit Cost per gal [3]	$ 3.16	$ 4.32	$ 7.19	$ 3.80	$ 4.94	$ 2.24	$ 2.49	$ 1.96	$ 2.64	$ 2.97
State Manifest Document Number	NJA2988517	NJA2988662	NJA2988679	NJA2988686	NJA3017471	NJA3030488	NJA3015902	NJA3015530	NJA3031178	NJA3015209

Notes:
Product thickness was determined prior to the EFR event.
gal = gallon
All EFR Wells are 4 inch in diameter
EFR events 13 and 14 product removal was low due to significant quantities of product remaining emulsified

as the result of a short vac truck standing time prior to gauging

Product removal estimate does not take into account a % of product remaining emulsified do to high agitation
indicates that this data will be known once the next EFR waste T&D event is performed

(1) Estimated free product (gal) based on Vacuum Truck gauging (interface probe) directly after each EFR Event and vapor monitoring during extraction (See Table 5)
(2) Total invoiced disposal cost for EFR event (product and groundwater) and monitoring well purge water from 1/4ly well development and monitoring activities *(if applicable)*
(3) Total Cost per gallon includes product transportation & disposal, manifest prep, & regulatory admin. fee for combined EFR and GW purge water volumes *(if applicable)*
(4) EFR # 11 free product volume was 55 gal and contained PCBs (approx. weight 450lbs total @ specific gravity of 8.19 lbs./gal). Disposal costs were significantly higher due to PCB content
(5) EFR # 23 cost and unit cost higher than normal due to additional vac truck trans and mob time. As the vac truck was broken when it reached the site, a 3 hour credit
will be applied to next months EFR T&D bill.
(6) Free product stored in an on-site 550-gallon AST equipped with secondary containment. AST contents, along with groundwater resulting from well purge activities
are drained and transported by CycleChem/CleanVenture every 90 days .
(7) Volume of ground water collected during each EFR event. Volume estimated using an oil/water interface probe on the 55-gal extraction drum. On-Site measurement began 1st quarter of 2000.
(8) Those volumes that are totaled over a specific period (beginning 1st quarter 2000) is that volume specific to each of the EFR event it represents.
(9) Estimated by subtracting the free product aqueous volume and extracted groundwater volume for each of the representative EFR event from the total removal volume manifested for a specific disposal event
(10) EFR events did not take place in January or February 2001 due to access issues caused by inclement weather.
(11) This shipment contained 7.0 ppm of PCBs in organic layer and % moisture of organic lyer 57.59%
(12) Vapor phase free product volume not determined for July 2003 EFR Event No. 65 due to instrument failure
(13) This shipment contained 19.3 ppm PCBs, 2nd sample contained 12.5 ppm PCBs.

Table 1
L.E. CARPENTER - Wharton, New Jersey
Free Product Recovery - EFR Well # 1 - 28

EFR Event Date / Well No.	EFR #22 29-Jul-99 Feet of Product	EFR #23 [3] 27-Aug-99 Feet of Product	EFR #24 22-Sep-99 Feet of Product	EFR #25 27-Oct-99 Feet of Product	EFR #26 30-Nov-99 Feet of Product	EFR #27 16-Dec-99 Feet of Product	EFR #28 28-Jan-00 Feet of Product	EFR #29 18-Feb-00 Feet of Product	EFR #30 24-Mar-00 Feet of Product	EFR #31 19-Apr-00 Feet of Product	EFR #32 18-May-00 Feet of Product	EFR #33 16-Jun-00 Feet of Product	EFR #34 18-Jul-00 Feet of Product	EFR #35 17-Aug-00 Feet of Product	EFR #36 18-Sep-00 Feet of Product	EFR #37 25-Oct-00 Feet of Product	EFR #38 17-Nov-00 Feet of Product	EFR #39 15-Dec-00 Feet of Product	EFR #40 [10] 15-Mar-01 Feet of Product	EFR #41 23-Apr-01 Feet of Product	EFR #42 23-May-01 Feet of Product	EFR #43 13-Jun-01 Feet of Product	EFR #44 27-Jul-01 Feet of Product
EFR-1	1.49	1.27	1.94	1.53	1.47	1.20	1.22	0.85	1.86	1.59	1.54	2.10	1.51	1.26	1.83	1.00	1.07	1.14	2.91	1.25	1.02	1.14	0.57
EFR-2	1.21	1.00	0.83	1.35	1.28	1.40	0.06	1.04	2.25	2.00	1.64	1.89	1.40	0.35	1.08	0.97	1.09	0.75	2.92	2.66	1.75	2.26	1.22
EFR-3	0.88	1.08	0.74	0.50	0.47	0.02	0.51	0.07	0.08	0.09	0.52	1.02	0.25	0.02	0.08	0.44	0.43	0.46	0.33	0.29	0.49	0.70	0.40
EFR-4	0.44	0.99	0.51	0.11	0.09	0.58	0.51	0.48	0.11	0.11	0.41	0.22	0.05	0.02	0.02	0.02	0.05	0.21	0.59	1.65	0.01	0.44	0.02
EFR-5	2.65	1.57	1.77	3.23	2.99	1.27	2.95	2.45	2.91	2.54	1.84	2.34	1.99	1.69	1.57	2.74	2.47	2.75	5.95	1.75	1.90	0.62	2.24
EFR-6	1.51	0.91	0.15	0.86	0.53	0.33	1.07	0.77	0.29	0.81	0.49	0.27	0.54	0.29	0.55	0.83	0.79	0.96	2.05	0.52	0.43	0.16	0.46
EFR-7	0.28	0.05	0.01	0.07	0.04	0.47	0.16	0.02	0.35	0.01	0.02	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.28	0.02	0.02	0.00	0.00
EFR-8	0.39	0.27	0.09	0.19	0.05	0.11	0.05	0.06	0.08	0.03	0.05	0.03	0.02	0.01	0.01	4.26	0.02	0.05	0.03	0.05	0.04	0.03	0.01
EFR-9	1.16	0.56	0.41	0.28	0.10	0.15	0.19	0.09	0.19	0.02	0.06	0.06	0.12	0.15	0.09	0.02	0.50	0.77	0.57	0.07	0.56	0.07	0.14
EFR-10	3.53	2.47	3.02	5.18	3.95	3.07	4.50	3.55	3.50	4.50	1.36	2.50	3.09	0.75	2.76	3.88	3.27	4.05	5.54	3.17	3.52	3.32	3.79
EFR-11	2.78	1.57	1.93	3.20	3.11	1.07	3.44	4.95	2.41	2.95	2.93	2.49	4.12	0.79	4.73	0.16	4.00	3.73	2.82	2.41	3.56	2.60	3.91
EFR-12	0.30	0.20	0.03	0.09	0.07	0.01	0.03	0.49	0.45	0.10	0.19	0.01	0.01	0.00	0.03	0.11	0.04	0.02	0.07	0.02	0.25	0.01	0.01
EFR-13	1.33	1.01	0.74	0.78	0.57	0.26	0.36	0.34	0.48	0.47	0.69	0.56	0.73	0.49	0.22	0.25	0.09	0.15	1.14	0.27	0.78	0.28	0.39
EFR-14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EFR-15	0.00	0.19	0.04	0.02	0.06	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00
EFR-16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EFR-17	0.39	0.36	0.10	0.06	0.24	0.25	0.11	0.32	0.04	0.16	0.65	0.04	0.01	0.02	0.09	0.06	0.36	0.01	0.41	0.31	0.51	0.28	0.02
EFR-18	0.96	1.57	0.61	0.35	0.77	0.05	0.20	0.05	0.12	0.04	0.32	0.01	0.06	0.16	0.08	0.31	0.21	0.20	3.27	1.35	0.43	0.31	0.01
EFR-19	2.05	2.02	0.51	1.54	0.84	0.69	1.67	1.73	0.25	0.60	0.98	0.17	0.63	0.34	0.22	0.97	0.59	1.42	2.32	0.65	1.38	1.01	0.44
EFR-20	1.59	1.86	0.47	1.92	1.36	0.75	1.09	2.58	0.84	0.42	0.54	0.33	0.30	0.39	0.46	0.54	0.11	0.37	0.24	0.07	0.52	0.31	0.09
EFR-21	1.57	1.04	1.01	2.32	1.40	1.70	1.92	1.34	9.04	2.98	2.47	3.02	2.09	1.62	2.75	1.79	1.55	1.37	4.09	3.51	2.95	2.81	1.93
EFR-22	1.47	1.41	0.17	2.22	1.76	0.53	0.82	0.58	0.09	0.15	0.05	0.05	0.01	0.19	0.05	0.53	2.14	1.50	0.31	0.05	0.43	0.00	0.00
EFR-23	2.13	1.03	0.12	0.58	0.54	0.24	0.23	0.31	0.45	0.06	0.05	0.01	0.19	0.09	0.07	0.07	0.08	0.39	0.07	0.03	0.88	0.28	0.05
EFR-24	0.08	0.05	0.00	0.00	0.04	0.13	0.11	0.07	0.58	0.02	0.03	0.00	0.00	0.00	0.01	0.01	0.01	0.04	2.27	0.05	0.34	0.01	0.01
EFR-25	1.74	1.48	0.21	0.39	0.19	0.05	0.31	0.39	0.58	0.21	0.10	0.03	0.10	0.09	0.10	0.19	0.12	0.10	0.04	0.39	0.28	0.14	0.03
EFR-26	1.23	0.72	0.29	0.52	0.94	0.59	1.54	1.10	1.33	1.68	2.02	1.44	2.25	1.38	2.01	2.05	1.78	1.10	2.64	2.56	2.68	1.48	2.24
EFR-27	0.17	0.21	0.06	0.01	0.01	0.01	0.02	0.14	0.20	0.01	0.03	0.04	0.01	0.01	0.15	0.01	0.01	0.01	0.48	0.05	0.04	0.00	0.01
EFR-28	1.57	1.79	0.88	2.19	0.96	1.42	1.33	1.00	2.30	2.42	1.81	2.68	1.72	2.48	2.02	1.39	1.96	0.64	2.81	2.75	1.86	2.34	1.36
MIN (ft)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX (ft)	3.53	2.47	3.02	5.18	3.95	3.07	4.50	4.95	3.50	4.50	2.93	3.02	4.12	2.48	4.73	4.26	4.00	4.05	5.95	3.51	3.56	3.32	3.91
Average (ft)	1.18	0.94	0.57	1.06	0.89	0.58	0.87	0.89	0.88	0.84	0.75	0.75	0.75	0.45	0.74	0.80	0.80	0.79	1.60	0.95	0.97	0.73	0.69
Total Free Product (ft)	33.11	26.36	15.94	29.68	24.59	16.57	24.94	24.79	24.52	23.38	20.91	21.30	21.14	12.49	20.67	22.51	22.35	22.23	44.76	26.62	27.24	20.39	19.33
Total Standing Free Product Volume (gal)	21.52	17.13	10.36	19.29	15.98	10.64	15.82	16.11	15.00	15.20	13.59	13.85	13.74	8.12	13.44	14.63	14.53	14.45	29.09	17.30	17.71	13.25	12.56
Estimated Total Free Product Removed (gal) [1] *(Liquid and Vapor Phase Free Product Volume)*	54.48	36.00	44.00	54.73	44.79	49.34	43.52	51.65	48.14	45.46	45.50	43.65	46.88	22.05	25.07	44.12	35.36	49.32	79.06	45.44	56.76	37.50	40.36
Estimated Total Fluids Removed (gal) *(Liquid Phase Free Product Volume plus Groundwater Extraction Volume) as of Jan 2000*							40.93	45.21	52.80	41.25	40.18	39.44	40.43	20.13	21.05	38.78	31.36	43.73	74.01	40.01	51.15	31.29	36.30
Vapor Phase Free Product Extraction Volume (gal) *as of Jan 2000*							6.55	7.93	10.19	5.95	6.31	5.05	7.60	5.22	5.26	5.58	5.65	6.42	11.06	8.49	6.90	7.56	6.53
Liquid Phase Free Product Extraction Volume (gal) *as of Jan 2000*							36.97	43.73	37.96	39.61	39.19	38.61	38.78	16.93	19.81	37.54	29.71	42.90	68.00	37.95	47.85	30.00	33.83
Groundwater Extraction Volume (gal) per each EFR Event [7] *as of Jan 2000*							3.96	2.48	14.86	1.65	0.99	0.83	1.65	3.30	1.24	1.24	1.65	0.83	6.01	2.05	3.30	1.24	2.48
Total EFR Extraction Volume (gal) *(Total Volume: free product + groundwater + product vapor)*	725.54	298.00	239.00	265.00	249.07	350.00	47.48	54.14	62.99	47.11	46.49	44.49	48.03	25.35	26.31	45.36	37.01	50.15	85.07	48.50	60.05	38.79	42.84
Estimated Volume Removed Resulting from Drum Purging (GW purge water) *if applicable* [9]	374	-	-	199	82	-	357				110				194			148			296		
Total Volume Removed from Site (gal) *(Manifested volume)* [8]	1,100	292	241	464	331	350	538				250				225			306			415		
Cumulative Total Free Product Removed (gal)	2,183	2,169	2,213	2,268	2,313	2,362	2,406	2,457	2,506	2,551	2,597	2,640	2,687	2,709	2,734	2,779	2,813	2,863	2,942	2,988	3,045	3,082	3,123
Extraction, Transportation & Disposal Cost [2]	$ 2,155.75	$ 2,152.12	$ 995.81	$ 1,288.50	$ 1,028.99	$ 968.87	$ 1,045.62				$ 735.13				$ 762.31			$ 995.13			$ 1,175.19		
Unit Cost per gal [2]	$ 1.97	$ 7.40	$ 4.13	$ 2.78	$ 3.11	$ 2.77	$ 1.94				$ 3.18				$ 3.39			$ 3.26			$ 2.83		
State Manifest Document Number	NJA3016543	NJA3022956	NJA2986932	NJA313015	NJA3030027	NJA3074974	NJA3114860				NJA3115867				NJA3101135			NJA3299139			NJA3298983		

Table 1
L.E. CARPENTER - Wharton, New Jersey
Free Product Recovery - EFR Well # 1 - 28

EFR Event Date Well No.	EFR #45 24-Aug-01 Feet of Product	EFR #46 25-Sep-01 Feet of Product	EFR #47 25-Oct-01 Feet of Product	EFR #48 20-Nov-01 Feet of Product	EFR #49 31-Dec-01 Feet of Product	EFR #50 29-Jan-02 Feet of Product	EFR #51 20-Feb-02 Feet of Product	EFR #52 25-Mar-02 Feet of Product	EFR #53 10-Apr-02 Feet of Product	EFR #54 06-May-02 Feet of Product	EFR #55 13-Jun-02 Feet of Product	EFR #56 15-Jul-02 Feet of Product	EFR #57 09-Aug-02 Feet of Product	EFR #58 13-Sep-02 Feet of Product	EFR #59 08-Oct-02 Feet of Product	EFR #60 07-Nov-02 Feet of Product	EFR #61 17-Dec-02 Feet of Product	EFR #62 11-Mar-03 Feet of Product	EFR #63 17-Mar-03 Feet of Product	EFR #64 21-Mar-03 Feet of Product	EFR #65 10-Apr-03 Feet of Product	EFR #66 09-May-03 Feet of Product
EFR-1	0.00	1.29	1.60	1.51	1.57	2.07	1.98	0.90	0.77	1.60	1.82	0.65	0.91	1.14	0.88	1.68	1.39	0.68	0.22	0.41	0.45	0.19
EFR-2	1.17	1.22	1.14	1.15	1.19	1.97	1.33	1.40	1.20	2.39	2.15	1.33	1.02	0.09	1.27	2.96	2.07	1.96	0.94	1.02	1.40	1.54
EFR-3	0.65	0.51	0.81	0.76	0.80	0.70	0.78	1.05	1.09	1.28	1.53	0.25	0.89	0.81	0.91	0.98	0.88	0.70	0.30	0.20	0.07	0.14
EFR-4	1.86	0.11	0.57	0.68	0.54	0.26	1.19	0.37	0.89	0.98	1.07	1	0.26	0.11	0.49	2.86	0.52	0.00	0.00	0.00	0.00	0.00
EFR-5	2.05	2.25	2.55	2.10	2.67	2.66	2.69	3.50	3.07	3.25	2.17	2.01	2.00	2.05	1.67	1.69	0.87	2.91	1.19	0.16	0.79	0.49
EFR-6	0.49	0.37	1.19	1.56	1.29	0.71	2.21	2.30	0.77	0.49	0.27	0.54	0.45	0.62	0.39	3.14	1.69	0.27	0.29	0.27	0.39	0.14
EFR-7	0.16	0.00	0.05	0.08	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EFR-8	0.18	0.00	0.18	0.16	0.22	0.01	0.04	0.07	0.10	0.05	0.07	0	0.14	0.28	0.18	0.1	0.25	0.37	0.27	0.23	0.33	0.05
EFR-9	0.27	0.39	0.56	0.65	0.32	0.29	0.45	0.32	0.32	0.26	0.11	0.35	0.30	0.19	0.32	0.33	0.25	0.24	0.02	0.32	0.54	0.17
EFR-10	2.30	2.62	2.70	2.61	2.91	2.02	3.32	3.49	2.77	2.64	3.39	3.16	2.31	2.83	1.95	2.70	2.76	2.45	0.84	0.28	0.84	0.79
EFR-11	2.37	3.86	3.22	2.44	2.90	2.89	2.58	2.12	0.99	0.97	1.01	1.54	2.08	3.91	2.05	1.58	1.87	2.62	4.69	3.88	1.19	0.89
EFR-12	0.23	0.00	0.00	0.34	0.21	0.26	0.11	0.10	0.15	0.00	0.05	0.90	0.06	0.93	0.25	0.24	0.64	0.55	0.49	0.52	0.45	0.19
EFR-13	0.47	0.38	0.46	0.88	0.44	0.84	0.44	0.57	0.68	1.71	1.11	0.55	0.26	0.61	0.30	0.55	0.69	0.09	0.11	0.26	0.28	0.12
EFR-14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EFR-15	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.20	0.00	0.09	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00
EFR-16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EFR-17	0.49	0.94	0.85	0.97	1.57	1.43	2.23	1.90	0.77	0.75	0.60	0.43	0.87	1.50	0.71	1.10	1.07	0.18	0.03	0.00	0.00	0.39
EFR-18	0.13	0.41	0.69	0.75	1.22	1.90	1.00	1.07	0.81	0.80	0.05	0.32	0.02	1.56	0.21	0.04	0.84	1.32	1.31	0.04	0.00	0.65
EFR-19	1.19	0.54	2.15	2.36	2.39	2.26	3.22	2.90	2.69	1.84	0.95	1.82	1.55	2.55	0.35	1.30	1.03	0.40	0.80	0.31	1.51	0.52
EFR-20	0.32	0.24	0.73	1.10	1.29	1.75	0.46	1.24	1.24	1.74	2.03	1.62	1.58	1.85	1.47	1.77	2.45	2.30	1.89	1.39	2.42	1.00
EFR-21	1.61	1.87	1.69	1.39	1.64	1.51	1.50	2.25	1.65	2.11	2.51	1.09	1.48	0.02	0.44	0.00	0.00	0.01	2.49	1.95	1.45	2.44
EFR-22	0.47	0.87	1.22	1.53	1.93	0.98	0.63	0.80	0.39	0.16	0.19	0.32	0.11	0.22	1.39	1.09	0.76	2.60	0.54	0.00	0.00	0.00
EFR-23	0.34	0.07	0.85	2.57	0.75	0.98	1.19	0.01	0.70	0.57	0.52	0.50	0.38	0.77	0.53	0.81	0.67	0.82	0.06	0.50	2.24	0.05
EFR-24	0.27	0.14	0.35	0.39	0.34	0.47	2.65	0.60	1.35	0.33	0.24	1.18	0.19	0.19	0.16	0.01	0.00	0.00	0.00	0.00	0.00	0.00
EFR-25	0.47	0.09	0.43	0.63	0.64	0.82	0.99	0.76	1.21	0.33	0.29	0.36	0.25	0.35	0.28	0.33	0.69	0.14	0.09	0.05	0.21	0.32
EFR-26	1.07	1.20	1.45	1.22	1.19	1.14	0.87	1.55	1.67	1.69	1.92	2.42	1.69	1.24	0.59	0.28	0.40	0.33	0.27	0.30	0.18	0.51
EFR-27	0.04	0.00	0.52	0.49	0.19	0.53	0.32	0.00	0.00	0.38	1.31	1.10	0.04	1.48	2.53	1.77	3.10	2.49	0.00	0.00	0.00	0.00
EFR-28	1.67	1.05	1.50	1.38	1.51	1.67	1.86	0.21	0.63	0.29	0.35	1.09	0.38	1.22	0.22	0.14	0.28	1.04	0.30	0.01	0.44	0.38
MIN (ft)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX (ft)	2.37	3.86	3.22	2.57	2.91	2.89	3.32	3.50	3.07	3.25	3.39	3.16	2.31	3.91	2.53	3.14	3.10	2.91	4.69	3.88	2.42	2.44
Average (ft)	0.75	0.70	0.97	1.07	1.05	1.06	1.21	1.05	0.93	0.93	0.92	0.90	0.69	0.93	0.59	1.00	0.91	0.87	0.61	0.45	0.54	0.39
Total Free Product (ft)	21.08	19.52	27.29	30.01	29.67	29.55	33.86	29.91	26.91	26.11	25.82	25.11	19.01	26.91	19.43	27.96	25.54	24.47	17.07	12.59	15.15	11.02
Total Standing Free Product Volume (gal)	19.70	12.69	17.74	19.51	19.29	19.21	22.01	19.38	16.84	16.97	16.79	16.32	12.36	16.84	12.63	18.11	16.60	15.91	11.10	8.18	9.85	7.16
Estimated Total Free Product Removed (gal) [1] *(Liquid and Vapor Phase Free Product Volume)*	37.70	27.86	28.54	31.09	29.96	32.48	33.28	29.79	31.72	28.10	29.16	25.59	26.19	39.55	28.67	25.66	27.22	38.50	30.39	17.21	27.34	19.05
Estimated Total Fluids Removed (gal) *(Liquid Phase Free Product Volume plus Groundwater Extraction Volume) as of Jan 2000*	33.00	25.58	25.16	26.40	23.98	24.75	26.40	25.16	28.05	26.40	28.05	25.58	24.75	37.13	31.02	28.05	28.05	38.78	31.35	17.33	30.53	19.39
Vapor Phase Free Product Extraction Volume (gal) *as of Jan 2000*	6.35	4.76	6.26	7.99	7.91	9.38	9.53	6.63	6.15	5.00	6.05	2.49	3.51	6.55	1.93	1.74	1.54	1.38	1.51	0.71	0.94	0.90
Liquid Phase Free Product Extraction Volume (gal) *as of Jan 2000*	31.35	23.10	22.28	23.10	21.45	23.10	24.75	23.10	25.58	23.10	23.10	23.10	22.69	33.00	26.73	23.99	25.53	37.13	28.86	16.50	26.40	18.15
Groundwater Extraction Volume (gal) per each EFR Event [7] *as of Jan 2000*	1.65	2.48	2.89	3.30	2.48	1.65	1.65	2.06	2.48	3.30	4.95	2.48	2.06	4.13	4.29	4.13	2.48	1.65	2.48	0.83	4.13	1.24
Total EFR Extraction Volume (gal) (Total Volume: *free product + groundwater + product vapor)*	39.35	30.34	31.42	34.39	31.94	34.13	34.93	31.79	34.21	31.40	34.10	28.07	28.26	43.68	32.95	29.80	29.70	40.16	32.87	18.04	31.47	20.29
Estimated Volume Removed Resulting from Drum Purging (GW purge water) *if applicable* [9]	90				0				142				0					328.09				
Total Volume Removed from Site (gal) *(Manifested volume)* [8]	200				100				250				105					529				
Cumulative Total Free Product Removed (gal)	3,160	3,188	3,217	3,248	3,277	3,310	3,343	3,373	3,404	3,433	3,462	3,487	3,513	3,553	3,582	3,607	3,635	3,673	3,703	3,721	3,748	3,767
Extraction, Transportation & Disposal Cost [2]	$ 1,069.50				$ 768.25				$ 966.12				$ 851.00					$				
Unit Cost per gal [3]	$ 5.36				$ 7.68				$ 3.86				$ 8.10					$				
State Manifest Document Number	NJA4036330				NJA4036384				NJA4035962				NJA4036029 (11)					NJA5010142 (13)				

Table 1
L.E. CARPENTER - Wharton, New Jersey
Free Product Recovery - EFR Well # 1 - 28

EFR Event Date Well No.	EFR #67 10-Jun-03 Feet of Product	EFR #68 [3] 08-Jul-03 Feet of Product	EFR #69 07-Aug-03 Feet of Product	EFR #70 09-Sep-03 Feet of Product	EFR #71 09-Oct-03 Feet of Product	EFR #72 06-Nov-03 Feet of Product	EFR #73 31-Dec-03 Feet of Product	EFR AVERAGES	EFR TOTALS
EFR-1	0.48	0.19	0.49	0.69	0.89	0.28	0.09		
EFR-2	2.34	1.61	1.32	1.41	1.75	1.22	1.10		
EFR-3	0.05	0.08	0.10	0.19	0.13	0.08	0.05		
EFR-4	0.00	0.00	0.00	0.03	0	0	0		
EFR-5	0.81	0.29	0.29	0.72	0.73	0.51	0.42		
EFR-6	0.49	0.12	0.00	0.16	0.07	0.00	0.22		
EFR-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
EFR-8	0.11	0.00	0.00	0	0.02	0.03	0.03		
EFR-9	0.10	1.03	0.00	0.02	0.07	0.06	0.03		
EFR-10	1.33	0.54	0.00	2.21	0.92	0.93	0.76		
EFR-11	1.01	0.66	0.19	3.57	1.52	0.70	0.89		
EFR-12	0.24	0.01	0.00	0.00	0.00	0.00	0.00		
EFR-13	0.27	0.09	0.12	0.18	0.09	0.08	0.07		
EFR-14	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
EFR-15	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
EFR-16	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
EFR-17	0.51	0.01	0.00	0.00	0.00	0.00	0.00		
EFR-18	0.01	0.00	0.00	0.08	0.11	0.00	0.00		
EFR-19	0.09	0.00	0.00	0.00	0.02	0.00	0.00		
EFR-20	3.18	2.41	0.00	1.79	2.40	2.59	2.51		
EFR-21	2.39	2.09	2.55	2.19	2.45	1.29	1.09		
EFR-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
EFR-23	0.26	0.04	0.00	0.11	0.10	0.10	0.28		
EFR-24	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
EFR-25	0.00	0.00	0.00	0.06	0.09	0.11	0.00		
EFR-26	0.20	0.15	0.00	0.89	0.58	0.33	0.24		
EFR-27	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
EFR-28	0.30	0.09	0.08	0.06	0.11	0.14	0.15		
MIN (ft)	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
MAX (ft)	3.18	2.41	2.56	3.57	2.45	2.59	2.51		
Average (ft)	0.50	0.39	0.18	0.51	0.43	0.30	0.29		
Total Free Product (ft)	14.11	9.28	5.14	14.39	11.99	8.37	7.90		
Total Standing Free Product Volume (gal)	9.17	6.00	3.34	9.36	7.79	5.44	5.14		
Estimated Total Free Product Removed (gal) [1] *(Liquid and Vapor Phase Free Product Volume)*	25.45	21.45	12.02	17.46	22.29	25.49	14.91	53	3,906
Estimated Total Fluids Removed (gal) *(Liquid Phase Free Product Volume plus Groundwater Extraction Volume) as of Jan 2000*	26.40	22.29	14.86	20.63	24.34	29.70	16.50	31	1,449
Vapor Phase Free Product Extraction Volume (gal) *as of Jan 2000*	2.36	0.00	1.30	0.96	0.84	0.74	0.88	5	226
Liquid Phase Free Product Extraction Volume (gal) *as of Jan 2000*	23.10	21.45	10.79	16.50	21.45	24.75	14.03	29	1,317
Groundwater Extraction Volume (gal) per each EFR Event [7] *as of Jan 2000*	3.90	0.83	4.13	4.13	2.89	4.95	2.48	3	131
Total EFR Extraction Volume (gal) *(Total Volume: free product + groundwater + product vapor)*	29.76	22.29	16.16	21.59	25.18	30.44	17.39	204	15,093
Estimated Volume Removed Resulting from Drum Purging (GW purge water) *if applicable* [5]				[illegible]				182	4,193
Total Volume Removed from Site (gal) *(Manifested volume)* [6]				[illegible]				494	18,777
Cumulative Total Free Product Removed (gal)	3,792	3,814	3,826	3,843	3,865	3,891	3,906	N/A	3,906
Extraction, Transportation & Disposal Cost [6]	1,344.36							$ 1,283.66	$ 52,559.78
Unit Cost per gal [6]	2.54							$ 3.69	N/A
State Manifest Document Number								N/A	N/A

TABLE 2
L.E. CARPENTER - WHARTON, NEW JERSEY
REGIONAL APPARENT FREE PRODUCT TRENDS

	EFR Event Date	21-Nov-97	9-Dec-97	7-Jan-98	16-Feb-98	16-Mar-98	27-Mar-98	24-Apr-98	29-May-98	30-Jun-98	31-Jul-98	24-Aug-98	17-Sep-98	22-Oct-98	20-Nov-98	18-Dec-98	13-Jan-99	17-Feb-99	23-Mar-99	19-Apr-99	18-May-99	22-Jun-99	28-Jul-99	27-Aug-99	22-Sep-99	27-Oct-99
Western Region of Free Product	EFR-1	1.64	1.53	1.94	2.48	0.93	0.94	1.42	1.55	2.11	1.28	1.22	1.71	1.59	1.71	1.57	0.53	1.79	3.68	1.13	1.09	1.15	1.49	1.27	1.94	1.63
	EFR-2	1.55	1.50	1.86	2.20	2.96	2.92	2.65	2.44	1.78	1.12	1.09	1.21	1.29	1.51	1.41	0.95	1.40	2.42	1.46	1.22	0.92	1.21	1.00	0.63	1.35
	EFR-3	0.85	1.02	1.27	1.58	1.19	0.03	0.24	0.19	0.77	0.72	0.93	1.03	1.01	1.19	1.18	1.14	1.01	1.63	0.36	0.25	0.86	0.88	1.03	0.74	0.69
	EFR-17	0.04	0.17	1.56	0.17	0.08	0.00	0.09	0.00	0.02	0.37	0.29	0.46	0.56	0.71	0.53	0.26	0.08	0.06	0.06	0.08	0.12	0.39	0.36	0.10	0.06
	EFR-18	0.10	0.10	0.09	0.00	0.00	0.00	0.00	0.00	0.01	0.08	0.14	0.48	0.68	0.98	1.08	0.56	0.11	0.00	0.06	0.16	0.46	0.96	1.37	0.61	0.36
	EFR-20	0.40	0.34	0.95	0.27	0.00	0.00	0.04	0.24	0.37	0.65	0.63	0.79	1.24	1.85	2.11	0.65	1.33	0.88	0.43	0.89	0.87	1.59	1.86	0.47	1.92
	EFR-21	2.36	2.40	2.71	2.74	4.14	3.97	4.23	3.98	3.29	1.97	1.87	1.86	1.77	1.67	1.62	1.21	1.43	2.62	2.35	1.49	1.46	1.57	1.04	1.01	2.32
	EFR-28	2.20	2.30	1.78	2.60	3.20	3.48	4.40	3.16	2.61	1.47	1.73	1.69	1.83	1.79	1.74	1.03	1.29	1.71	1.65	1.46	1.25	1.67	1.78	0.38	2.19
	Total Free Product (ft)	9.14	9.36	12.16	12.04	12.50	11.34	13.07	11.56	10.96	7.68	7.90	9.23	9.97	11.41	11.24	6.33	8.44	13.00	7.50	6.64	7.09	9.76	9.71	5.88	10.52
	Total Free Product (gal)	5.86	6.00	7.79	7.72	8.01	7.27	8.38	7.41	7.03	4.91	5.06	6.00	6.48	7.42	7.31	4.11	5.49	8.45	4.88	4.32	4.61	6.34	6.31	3.82	6.84
West-Central Region of Free Product	EFR-4	1.03	2.27	0.54	0.30	0.00	0.00	0.00	0.00	0.03	0.38	1.23	2.40	2.17	1.75	1.79	0.73	0.10	0.14	0.08	0.05	0.03	0.44	0.99	0.51	0.11
	EFR-5	4.03	3.74	4.25	3.29	3.39	1.71	2.71	2.02	1.86	2.38	2.52	2.33	2.52	2.19	2.28	2.68	3.47	6.15	2.65	2.61	2.66	2.66	1.57	1.77	3.23
	EFR-6	0.72	1.00	1.24	2.27	1.71	1.17	2.23	1.55	1.56	1.96	1.56	1.42	1.25	1.29	1.38	0.49	0.84	0.88	0.61	1.07	1.16	1.51	0.91	0.15	0.86
	EFR-7	0.17	0.09	0.16	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.03	0.07	0.05	0.20	0.16	0.02	0.04	0.04	0.07	0.02	0.08	0.28	0.05	0.01	0.07
	EFR-19	0.54	2.80	1.89	1.95	1.63	1.44	0.88	0.65	0.42	0.90	1.26	1.68	1.95	2.31	2.44	1.83	1.68	0.52	0.44	0.52	1.10	2.05	2.02	0.51	1.54
	EFR-22	3.78	4.10	0.05	3.40	4.69	3.42	1.82	1.22	0.96	2.86	2.87	2.97	2.83	2.58	2.27	2.06	0.84	0.34	0.95	1.39	1.93	1.47	1.41	0.17	2.22
	EFR-23	0.00	0.06	0.06	0.02	0.00	0.00	0.00	0.00	0.05	0.11	0.08	0.27	1.03	3.07	2.29	1.55	0.91	0.47	0.22	0.25	0.45	2.13	1.03	0.12	0.53
	EFR-24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.03	0.12	0.14	0.38	0.06	0.00	0.00	0.00	0.08	0.08	0.05	0.00	0.00
	EFR-25	2.95	3.00	3.55	4.15	3.11	0.72	0.82	0.79	0.78	0.60	0.41	0.29	0.41	1.33	1.58	1.05	1.75	1.19	1.08	0.76	0.54	1.74	1.48	0.21	0.39
	EFR-26	2.20	2.05	2.66	2.30	2.12	1.43	1.32	1.95	1.21	2.06	1.58	1.17	1.24	1.08	1.09	0.73	0.55	0.45	0.75	1.29	1.28	1.23	0.72	0.29	0.52
	EFR-27	0.15	0.02	2.71	0.74	0.00	0.00	0.03	0.00	0.02	0.33	0.45	1.49	0.54	0.47	0.51	0.09	0.12	0.00	0.00	0.02	0.03	0.17	0.21	0.06	0.01
	Total Free Product (ft)	15.57	19.13	17.11	18.42	16.65	9.89	9.81	8.18	6.91	11.60	11.99	14.09	14.02	16.39	15.93	11.61	10.36	10.18	6.85	7.98	9.34	13.76	10.44	3.80	9.48
	Total Free Product (gal)	9.98	12.26	10.97	11.81	10.67	6.34	6.29	5.24	4.43	7.44	7.69	9.16	9.11	10.65	10.35	7.55	6.73	6.62	4.45	5.19	6.07	8.94	6.79	2.47	6.16
East-Central Region of Free Product	EFR-8	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.03	0.04	0.08	0.13	0.09	0.07	0.03	0.12	0.00	0.03	0.03	0.03	0.09	0.39	0.27	0.09	0.13
	EFR-9	0.00	1.10	1.79	0.16	3.08	0.08	0.07	0.11	0.29	0.61	0.98	1.23	1.31	1.26	1.86	0.74	0.49	0.06	0.11	0.32	0.49	1.16	0.56	0.41	0.28
	EFR-10	5.20	5.80	6.42	7.47	7.06	6.05	6.71	5.47	5.68	4.94	4.52	4.34	4.38	3.98	3.99	3.68	5.79	5.52	4.97	4.23	3.71	3.63	2.47	3.02	5.18
	EFR-11	3.07	4.04	4.28	4.47	4.32	4.67	5.91	5.73	6.08	4.73	4.47	3.95	4.06	3.65	3.52	2.42	4.69	2.84	2.02	2.48	3.28	2.78	1.57	1.93	3.20
	EFR-12	0.04	0.03	0.00	0.07	0.00	0.00	0.00	0.02	0.28	0.22	0.28	0.24	0.15	0.29	0.17	0.04	0.11	0.05	0.02	0.02	0.10	0.30	0.20	0.03	0.09
	EFR-13	0.48	0.56	1.33	1.28	1.07	1.07	0.67	0.00	0.90	0.56	0.48	0.66	0.82	1.13	1.30	0.22	1.19	0.15	0.49	0.50	0.44	1.33	1.01	0.74	0.78
	Total Free Product (ft)	8.79	11.53	13.82	13.53	15.53	11.87	13.36	11.33	13.26	11.10	10.81	10.55	10.81	10.38	10.87	7.22	12.27	8.65	7.64	7.58	8.11	9.59	6.08	6.22	9.66
	Total Free Product (gal)	5.63	7.39	8.86	8.67	9.95	7.61	8.56	7.26	8.50	7.12	6.93	6.86	7.03	6.75	7.07	4.69	7.98	5.62	4.97	4.93	5.27	6.23	3.95	4.04	6.28
Eastern Region of Free Product	EFR-14	0.10	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	EFR-15	0.09	0.12	0.27	0.06	0.00	0.00	0.00	0.00	0.03	0.02	0.03	0.03	0.12	0.12	0.32	0.11	0.07	0.01	0.01	0.00	0.00	0.00	0.13	0.04	0.02
	EFR-16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Free Product (ft)	0.19	0.28	0.27	0.06	0.00	0.00	0.00	0.00	0.03	0.02	0.03	0.03	0.12	0.12	0.32	0.11	0.07	0.01	0.01	0.00	0.00	0.00	0.13	0.04	0.02
	Total Free Product (gal)	0.12	0.18	0.17	0.04	0.00	0.00	0.00	0.00	0.02	0.01	0.02	0.02	0.08	0.08	0.21	0.07	0.04	0.01	0.01	0.00	0.00	0.00	0.08	0.03	0.01
TOTAL APPARENT FREE PRODUCT VOLUME (GAL)		21.60	25.83	27.79	28.24	28.64	21.22	23.23	19.92	19.97	19.47	19.70	22.03	22.70	24.89	24.93	16.42	20.24	20.70	14.30	14.43	15.95	21.52	17.13	10.36	19.29

TABLE 2
L.E. CARPENTER - WHARTON, NEW JERSEY
REGIONAL APPARENT FREE PRODUCT TRENDS

	EFR Event Date	30-Nov-99	16-Dec-99	28-Jan-00	18-Feb-00	24-Mar-00	19-Apr-00	18-May-00	16-Jun-00	18-Jul-00	17-Aug-00	18-Sep-00	25-Oct-00	17-Nov-00	15-Dec-00	15-Mar-01	23-Apr-01	25-May-01	13-Jun-01	27-Jul-01	24-Aug-01	25-Sep-01	25-Oct-01	20-Nov-01	31-Dec-01	29-Jan-02
Western Region of Free Product	EFR-1	1.47	1.20	1.22	0.85	1.86	1.59	1.54	2.10	1.51	1.26	1.53	1.00	1.07	1.14	2.91	1.25	1.02	1.14	0.57	0.80	1.29	1.60	1.51	1.57	2.07
	EFR-2	1.28	1.40	0.06	1.04	2.25	2.00	1.64	1.89	1.40	0.36	1.08	0.97	1.09	0.76	2.92	2.66	1.75	2.26	1.22	1.17	1.22	1.14	1.15	1.19	1.37
	EFR-3	0.47	0.02	0.51	0.07	0.08	0.09	0.62	1.02	0.25	0.02	0.08	0.44	0.43	0.46	0.33	0.29	0.49	0.70	0.40	0.66	0.51	0.81	0.76	0.80	0.70
	EFR-17	0.24	0.25	0.11	0.32	0.04	0.16	0.65	0.04	0.01	0.02	0.09	0.06	0.36	0.01	0.41	0.31	0.51	0.28	0.02	0.49	0.34	0.85	0.97	1.57	1.43
	EFR-18	0.77	0.05	0.20	0.05	0.12	0.04	0.32	0.01	0.06	0.16	0.08	0.31	0.31	0.20	3.27	1.35	0.43	0.31	0.01	0.13	0.41	0.69	0.75	1.22	1.90
	EFR-20	1.36	0.75	1.08	2.58	0.64	0.42	0.54	0.33	0.30	0.39	0.45	0.54	0.11	0.37	0.24	0.97	0.52	0.31	0.08	0.32	0.24	0.73	1.10	1.29	1.78
	EFR-21	1.40	1.70	1.92	1.34	3.04	2.86	2.47	3.02	2.09	1.62	2.75	1.79	1.65	1.37	4.09	3.51	2.96	2.61	1.98	1.61	1.87	1.58	1.38	1.54	1.51
	EFR-28	0.96	1.42	1.33	1.00	2.30	2.42	1.81	2.68	1.72	2.48	2.02	1.39	1.36	0.64	2.81	2.75	1.86	2.34	1.36	1.67	1.05	1.50	1.38	1.51	1.67
	Total Free Product (ft)	7.95	6.79	6.43	7.25	10.33	9.58	9.59	11.09	7.34	6.31	8.08	6.50	6.38	4.95	16.98	13.09	9.54	9.95	5.64	6.85	6.93	8.90	9.00	10.69	12.43
	Total Free Product (gal)	5.17	4.41	4.18	4.71	6.71	6.23	6.23	7.21	4.77	4.10	5.25	4.23	4.15	3.22	11.04	8.51	6.20	6.47	3.67	4.45	4.50	5.79	5.85	6.95	8.08
West-Central Region of Free Product	EFR-4	0.03	0.58	0.51	0.48	0.11	0.11	0.41	0.22	0.05	0.02	0.02	0.02	0.05	0.21	0.59	1.65	0.01	0.44	0.02	1.86	0.11	0.57	0.68	0.54	0.26
	EFR-5	2.99	1.27	2.95	2.46	2.91	2.54	1.84	2.34	1.99	1.69	1.57	2.74	2.47	2.76	5.95	1.75	1.90	0.62	2.24	2.05	2.25	2.55	2.10	2.67	2.66
	EFR-6	0.63	0.33	1.07	0.77	0.29	0.31	0.49	0.27	0.54	0.29	0.55	0.83	0.79	0.96	2.05	0.32	0.43	0.16	0.46	0.49	0.37	1.13	1.56	1.23	0.71
	EFR-7	0.04	0.47	0.15	0.02	0.35	0.01	0.02	-	-	0.01	-	0.01	0.01	0.01	0.28	0.02	0.02	0.00	0.00	0.16	0.00	0.05	0.08	0.24	0.00
	EFR-19	0.84	0.69	1.67	1.73	0.25	0.60	0.98	0.17	0.63	0.34	0.22	0.87	0.59	1.42	2.32	0.65	1.98	1.01	0.44	1.19	0.54	2.15	2.36	2.38	2.26
	EFR-22	1.76	0.53	0.82	0.58	0.09	0.16	0.05	0.05	0.01	0.18	0.06	0.53	2.14	1.50	0.81	0.06	0.43	0.00	0.00	0.47	0.57	1.22	1.53	1.93	0.98
	EFR-23	0.64	0.24	0.23	0.31	0.46	0.06	0.06	0.01	0.13	0.03	0.07	0.07	0.08	0.39	0.07	0.03	0.88	0.28	0.05	0.34	0.07	0.85	2.67	0.75	0.98
	EFR-24	0.04	0.13	0.11	0.07	0.58	0.02	0.03	-	-	-	0.01	0.01	0.01	0.04	2.27	0.05	0.34	0.01	0.01	0.27	0.14	0.35	0.38	0.34	0.47
	EFR-25	0.19	0.05	0.31	0.39	0.58	0.21	0.10	0.03	0.10	0.03	0.10	0.19	0.12	0.10	0.04	0.39	0.28	0.14	0.03	0.47	0.09	0.43	0.63	0.64	0.82
	EFR-26	0.94	0.59	1.54	1.10	1.33	1.68	2.02	1.44	2.25	1.38	2.01	2.05	1.78	1.10	2.64	2.56	2.68	1.48	2.24	1.07	1.20	1.45	1.22	1.13	1.14
	EFR-27	0.01	0.01	0.02	0.14	0.20	0.01	0.03	0.04	0.01	0.01	0.15	0.01	0.01	0.01	0.48	0.05	0.04	0.00	0.01	0.04	0.00	0.52	0.49	0.13	0.53
	Total Free Product (ft)	8.11	4.89	9.38	8.05	7.15	5.71	6.03	4.57	5.71	3.98	4.76	7.33	8.05	8.50	17.50	7.53	8.99	4.14	5.50	8.41	5.34	11.27	13.70	11.98	10.81
	Total Free Product (gal)	5.27	3.18	6.10	5.23	4.65	3.71	3.92	2.97	3.71	2.59	3.09	4.76	5.23	5.53	11.38	4.89	5.84	2.69	3.58	5.47	3.47	7.33	8.91	7.79	7.03
East-Central Region of Free Product	EFR-8	0.05	0.11	0.05	0.06	0.08	0.03	0.05	0.03	0.02	0.01	0.01	0.16	0.02	0.06	0.03	0.05	0.04	0.03	0.01	0.18	0.00	0.18	0.16	0.22	0.01
	EFR-9	0.10	0.15	0.13	0.08	0.19	0.02	0.06	0.06	0.12	0.16	0.08	0.02	0.50	0.77	0.57	0.07	0.56	0.07	0.14	0.27	0.39	0.56	0.85	0.32	0.29
	EFR-10	3.95	3.07	4.50	3.55	3.50	4.50	1.36	2.50	3.09	0.75	2.76	3.88	3.27	4.05	5.64	3.17	3.52	3.32	3.73	2.30	2.62	2.70	2.61	2.91	2.02
	EFR-11	3.11	1.07	3.44	4.95	2.41	2.95	2.93	2.49	4.12	0.79	4.73	4.26	4.00	3.73	2.82	2.41	3.56	2.60	3.91	2.37	3.86	3.22	2.44	2.90	2.89
	EFR-12	0.67	0.01	0.03	0.49	0.46	0.10	0.19	0.01	0.01	0.00	0.03	0.11	0.04	0.02	0.07	0.02	0.25	0.01	0.01	0.23	0.00	0.00	0.34	0.21	0.26
	EFR-13	0.57	0.26	0.36	0.34	0.48	0.47	0.69	0.55	0.73	0.49	0.22	0.25	0.09	0.15	1.14	0.27	0.78	0.26	0.39	0.47	0.38	0.46	0.88	0.44	0.84
	Total Free Product (ft)	8.45	4.67	8.51	9.47	7.12	8.07	5.28	5.64	8.09	2.20	7.83	8.68	7.92	8.78	10.27	5.99	8.71	6.29	8.19	5.82	7.25	7.12	7.28	7.00	6.31
	Total Free Product (gal)	5.49	3.04	5.53	6.16	4.63	5.25	3.43	3.67	5.26	1.43	5.09	5.64	5.15	5.71	6.68	3.89	5.66	4.09	5.32	3.78	4.71	4.63	4.73	4.55	4.10
Eastern Region of Free Product	EFR-14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	EFR-15	0.08	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
	EFR-16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Free Product (ft)	0.08	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
	Total Free Product (gal)	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
TOTAL APPARENT FREE PRODUCT VOLUME (GAL)		15.98	10.64	15.82	16.11	16.00	15.20	13.59	13.85	13.74	8.12	13.44	14.63	14.53	14.45	29.09	17.30	17.71	13.25	12.56	13.70	12.69	17.74	19.51	19.29	19.21

TABLE 2
L.E. CARPENTER - WHARTON, NEW JERSEY
REGIONAL APPARENT FREE PRODUCT TRENDS

	EFR Event Date	20-Feb-02	26-Mar-02	10-Apr-02	6-May-02	13-Jun-02	15-Jul-02	9-Aug-02	13-Sep-02	8-Oct-02	7-Nov-02	17-Dec-02	11-Mar-03	17-Mar-03	24-Mar-03	10-Apr-03	8-May-03	10-Jun-03	8-Jul-03	7-Aug-03	9-Sep-03	9-Oct-03	6-Nov-03	31-Dec-03
													3 EFR events in March of 1Q03 due to snow and ice cover in Jan and Feb 03											
Western Region of Free Product	EFR-1	1.93	0.90	0.77	1.60	1.92	0.65	0.81	1.14	0.83	1.62	1.33	0.68	0.22	0.41	0.45	0.19	0.48	0.13	0.49	0.69	0.83	0.26	0.09
	EFR-2	1.33	1.40	1.20	2.39	2.15	1.33	1.02	0.09	1.27	2.86	3.07	1.96	0.94	1.02	1.40	1.54	2.34	1.61	1.32	1.41	1.75	1.22	1.10
	EFR-3	0.78	1.05	1.09	1.28	1.53	0.25	0.89	0.81	0.91	0.98	0.88	0.70	0.30	0.20	0.07	0.14	0.05	0.08	0.10	0.19	0.13	0.08	0.05
	EFR-17	2.23	1.90	0.77	0.75	0.60	0.43	0.67	1.50	0.71	1.10	1.07	0.18	0.03	0.00	0.00	0.39	0.51	0.01	0.00	0.00	0.00	0.00	0.00
	EFR-18	1.00	1.07	0.81	0.80	0.05	0.32	0.02	1.56	0.21	0.04	0.84	1.32	1.31	0.04	0.00	0.66	0.01	0.00	0.00	0.08	0.11	0.00	0.00
	EFR-20	0.46	1.24	1.24	1.74	2.03	1.62	1.58	1.85	1.47	1.77	2.45	2.30	1.88	1.33	2.42	1.00	3.18	2.41	0.00	1.78	2.40	2.59	2.51
	EFR-21	1.50	2.25	1.65	2.11	2.51	1.98	1.46	0.02	0.44	0.00	0.00	0.01	2.43	1.95	1.45	2.44	2.39	2.03	2.55	2.19	2.45	1.23	1.08
	EFR-28	1.86	0.21	0.63	0.29	0.35	1.08	0.38	1.22	0.22	0.14	0.28	1.04	0.30	0.61	0.44	0.38	0.30	0.09	0.08	0.06	0.11	0.14	0.15
	Total Free Product (ft)	11.09	10.02	8.16	10.96	11.14	7.66	6.83	8.19	6.06	8.51	9.92	8.19	7.41	5.56	6.23	6.74	9.26	6.36	4.54	6.40	7.78	5.52	4.98
	Total Free Product (gal)	7.21	6.51	5.30	7.12	7.24	4.98	4.44	5.32	3.94	5.53	6.45	5.32	4.82	3.61	4.05	4.38	6.02	4.13	2.95	4.16	5.06	3.59	3.24
West-Central Region of Free Product	EFR-4	1.13	0.37	0.89	0.98	1.07	1.00	0.26	0.11	0.43	2.86	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
	EFR-5	2.68	3.50	3.07	3.25	2.17	2.01	2.00	2.05	1.67	1.68	0.37	2.91	1.19	0.16	0.79	0.49	0.81	0.29	0.29	0.72	0.73	0.51	0.42
	EFR-6	2.21	2.30	0.77	0.43	0.27	0.54	0.45	0.62	0.38	3.14	1.63	0.27	0.29	0.27	0.39	0.14	0.43	0.12	0.00	0.16	0.07	0.00	0.22
	EFR-7	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	EFR-19	3.22	2.90	2.69	1.34	0.95	1.82	1.55	2.55	0.35	1.30	1.03	0.40	0.80	0.31	1.51	0.52	0.09	0.00	0.00	0.00	0.02	0.00	0.00
	EFR-22	0.63	0.80	0.39	0.16	0.19	0.32	0.11	0.22	1.39	1.09	0.76	2.60	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	EFR-23	1.13	0.01	0.70	0.57	0.52	0.60	0.38	0.77	0.53	0.81	0.67	0.82	0.06	0.50	2.24	0.05	0.26	0.04	0.00	0.11	0.10	0.10	0.26
	EFR-24	2.65	0.60	1.35	0.33	0.24	1.18	0.19	0.13	0.16	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	EFR-25	0.99	0.75	1.21	0.33	0.29	0.36	0.25	0.35	0.28	0.33	0.69	0.14	0.09	0.05	0.21	0.32	0.00	0.00	0.00	0.06	0.03	0.11	0.00
	EFR-26	0.87	1.55	1.67	1.83	1.92	2.42	1.69	1.24	0.59	0.28	0.40	0.33	0.27	0.30	0.18	0.51	0.20	0.15	0.00	0.93	0.58	0.33	0.24
	EFR-27	0.32	0.00	0.00	0.38	1.31	1.10	0.04	1.43	2.53	1.77	3.10	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Free Product (ft)	15.83	12.78	12.74	9.60	8.93	11.35	7.03	9.48	8.31	13.27	9.17	9.96	3.24	1.59	5.32	2.03	1.79	0.60	0.29	2.01	1.53	1.05	1.14
	Total Free Product (gal)	10.29	8.31	8.28	6.24	5.80	7.38	4.57	6.16	5.40	8.63	5.96	6.47	2.11	1.03	3.46	1.32	1.16	0.39	0.19	1.31	0.99	0.68	0.74
East-Central Region of Free Product	EFR-8	0.04	0.07	0.10	0.05	0.07	0.00	0.14	0.28	0.18	0.10	0.25	0.37	0.27	0.23	0.33	0.05	0.11	0.00	0.00	0.00	0.02	0.03	0.03
	EFR-9	0.45	0.32	0.32	0.28	0.11	0.35	0.30	0.19	0.32	0.33	0.25	0.24	0.02	0.32	0.54	0.17	0.10	1.03	0.00	0.02	0.07	0.06	0.03
	EFR-10	3.32	3.48	2.77	2.64	3.39	3.16	2.31	2.83	1.95	2.70	2.76	2.45	0.84	0.28	0.84	0.79	1.33	0.54	0.00	2.21	0.92	0.93	0.76
	EFR-11	2.58	2.12	0.99	0.87	1.01	1.54	2.08	3.91	2.06	1.88	1.87	2.62	4.69	3.83	1.19	0.99	1.01	0.66	0.19	3.57	1.52	0.70	0.89
	EFR-12	0.11	0.10	0.15	0.00	0.06	0.30	0.06	0.33	0.25	0.24	0.64	0.56	0.49	0.52	0.45	0.13	0.24	0.01	0.00	0.00	0.00	0.00	0.00
	EFR-13	0.44	0.87	0.68	1.71	1.11	0.55	0.26	0.61	0.30	0.55	0.68	0.08	0.11	0.26	0.25	0.12	0.27	0.03	0.12	0.18	0.09	0.08	0.07
	Total Free Product (ft)	6.94	6.96	5.01	5.55	5.75	5.90	5.15	8.15	5.06	5.80	6.45	6.32	6.42	5.44	3.60	2.25	3.06	2.27	0.31	5.98	2.62	1.80	1.78
	Total Free Product (gal)	4.51	4.52	3.26	3.61	3.74	3.84	3.35	5.30	3.29	3.77	4.19	4.11	4.17	3.54	2.34	1.46	1.99	1.48	0.20	3.89	1.70	1.17	1.16
Eastern Region of Free Product	EFR-14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	EFR-15	0.00	0.05	0.00	0.00	0.00	0.20	0.00	0.09	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	EFR-16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Free Product (ft)	0.00	0.05	0.00	0.00	0.00	0.20	0.00	0.09	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Free Product (gal)	0.00	0.03	0.00	0.00	0.00	0.13	0.00	0.06	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL APPARENT FREE PRODUCT VOLUME (GAL)		22.01	19.38	16.84	16.97	16.78	16.32	12.36	16.84	12.63	18.11	16.60	15.91	11.10	8.18	9.85	7.16	9.17	6.00	3.34	9.35	7.75	5.44	5.14

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY

MONTHLY EFR WELL GAUGING LOG

EFR #71 DATE 9-Oct-03

WELL ID	DEPTH TO PRODUCT (ft)	DEPTH TO WATER (ft)	PRODUCT TICKNESS (ft)
EFR-1	9.3	10.13	0.83
EFR-2	9.83	11.58	1.75
EFR-3	9.85	9.98	0.13
EFR-4	11.06	11.06	0.00
EFR-5	9.74	10.47	0.73
EFR-6	9.04	9.11	0.07
EFR-7	5.67	5.67	0.00
EFR-8	5.34	5.36	0.02
EFR-9	5.53	5.6	0.07
EFR-10	6.34	7.26	0.92
EFR-11	5.84	7.36	1.52
EFR-12	4.92	4.92	0.00
EFR-13	4.5	4.59	0.09
EFR-14	4.2	4.2	0.00
EFR-15	3.65	3.65	0.00
EFR-16	4.42	4.42	0.00
EFR-17	8.02	8.02	0.00
EFR-18	8.69	8.8	0.11
EFR-19	11.59	11.61	0.02
EFR-20	9.25	11.65	2.40
EFR-21	8.16	10.61	2.45
EFR-22	11.55	11.55	0.00
EFR-23	7.97	8.07	0.10
EFR-24	11	11	0.00
EFR-25	10.7	10.73	0.03
EFR-26	12.5	13.08	0.58
EFR-27	10.66	10.66	0.00
EFR-28	9.76	9.87	0.11

Total Volume Of Free Standing Product (gal) 7.75

CEMCO FIELD TECHNICIAN: G. Pizzuti

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY

MONTHLY EFR
VAPOR AND LIQUID PHASE VOLUMETRIC CALCULATION LOG

EFR #71 — **9-Oct-03**

WELL ID	EXTRACTION TIME		VAPOR PHASE CONCENTRATION		SYSTEM RECOVERY DATA			
	TOTAL TIME (min)	TOTAL TIME (hrs)	PPM	LEL (%)	VACUUM In Hg	CFM	lbs/hr	Total lbs
EFR-1	5.0	0.0833	453	7	17	100	2.09	0.1744
EFR-2	8.0	0.1333	1,391	21	17	100	6.43	0.8572
EFR-3	2.0	0.0333	3,674	56	17	100	16.98	0.5661
EFR-4	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-5	8.0	0.1333	315	5	17	100	1.46	0.1941
EFR-6	2.0	0.0333	2,624	40	17	100	12.13	0.4043
EFR-7	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-8	1.0	0.0167	1,115	17	17	100	5.16	0.0859
EFR-9	2.0	0.0333	584	9	17	100	2.70	0.0900
EFR-10	5.0	0.0833	420	6	17	100	1.94	0.1617
EFR-11	8.0	0.1333	446	7	17	100	2.06	0.2749
EFR-12	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-13	2.0	0.0333	3,805	58	17	100	17.59	0.5863
EFR-14	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-15	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-16	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-17	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-18	2.0	0.0333	518	8	17	100	2.40	0.0799
EFR-19	1.0	0.0167	3,214	49	17	100	14.86	0.2477
EFR-20	12.5	0.2083	387	6	17	100	1.79	0.3727
EFR-21	12.5	0.2083	1,161	18	17	100	5.37	1.1182
EFR-22	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-23	2.0	0.0333	1,443	22	17	100	6.67	0.2224
EFR-24	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-25	1.0	0.0167	1,706	26	17	100	7.88	0.1314
EFR-26	3.0	0.0500	1,358	21	17	100	6.28	0.3139
EFR-27	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-28	2.0	0.0333	4,592	70	17	100	21.23	0.7076
Total EFR Time (hrs)		1.3167	AVG ppm	1327.51			TOTAL LIQUID	6.5886
							TOTAL VAPOR PHASE VOLUME (SCF)	0.8437

NOTES: PPM = (% LEL on Meter) x (LEL of Product Mixture) x (1,000,000)
(1) Weighted LEL for analyte mixture @ 0.656% (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WP-B5 & WP-B4)
Analyte LELs: DEHP @ 0.3%; Ethylbenzene @ 1%; Xylenes @ 1.1%

Where:

ppm, =	Parts per Million by Volume		
Flow =	Cubic feet per minute (CFM)	100	
Molar Mass (MM) =	Molecular Weight (lb/lb-mole) =	292	(2)
IGC =	Ideal Gas Constant (359 ft^3/lb-mole) =	379	
LEL =	Free Product Mixture =	0.656	(1)
SG =	Specific Gravity =	0.9363	(3)

NOTES: (2) Avg. Molar Mass @ 292 (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WP-B5 & WP-B4)
Individual Analyte Molar Mass: DEHP @ 390.54; Ethylbenzene @ 106.2; Total Xylenes @ 106.2
(3) Average specific gravity of 0.9363 (RMT, Inc. product sampling in October 1999 @ MW-1R; EFR-11 & WP-A8)

$$\text{Pounds/Hr (lbs/hr)} = (\text{ppm}_v \times (60\ \text{min/hr}) \times (\text{CFM}) \times (\text{MM})) / ((1 \times 10^6) \times (359\ ft^3/\text{lb-mole}))$$

Free Product & Groundwater Gauging (55-Gal Drum)	
Product Thickness (in)	13.00
Groundwater Thickness (in)	1.75
Conversion @ 1.65 gal/inch	1.65
Total Product Volume (gal)	21.45
Total Groundwater Volume (gal)	2.89
Ratio Groundwater to Free Product (gal/gal)	0.13

	Y (gal)
Total Recovered Groundwater Volume (gal)	2.89
Total Recovered Free Product Volume (gal)	21.45
Total Recovered Fluids Volume (gal)	24.34
TOTAL EFR PRODUCT VOLUME	22.29 GAL

Date	9-Oct-03
Project #	3868.36
Subcontractor	CEMCO
Vac Head Utilized	NORTECH Corp. 551B

CEMCO Field Technician: Gary Pizzuti

RMT Project Manager: Nick Clevett

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY

MONTHLY EFR WELL GAUGING LOG

EFR #72 DATE 6-Nov-03

WELL ID	DEPTH TO PRODUCT (ft)	DEPTH TO WATER (ft)	PRODUCT TICKNESS (ft)
EFR-1	8.66	8.92	0.26
EFR-2	9.2	10.42	1.22
EFR-3	9.15	9.23	0.08
EFR-4	10.38	10.38	0.00
EFR-5	9.11	9.62	0.51
EFR-6	8.38	8.38	0.00
EFR-7	5.23	5.23	0.00
EFR-8	4.73	4.76	0.03
EFR-9	4.98	5.04	0.06
EFR-10	5.72	6.65	0.93
EFR-11	5.03	5.73	0.70
EFR-12	4.34	4.34	0.00
EFR-13	3.92	4	0.08
EFR-14	3.71	3.71	0.00
EFR-15	3.04	3.04	0.00
EFR-16	3.92	3.92	0.00
EFR-17	7.28	7.28	0.00
EFR-18	8.01	8.01	0.00
EFR-19	10.88	10.88	0.00
EFR-20	8.53	11.12	2.59
EFR-21	7.56	8.79	1.23
EFR-22	10.84	10.84	0.00
EFR-23	7.35	7.45	0.10
EFR-24	10.34	10.34	0.00
EFR-25	10.07	10.18	0.11
EFR-26	11.87	12.2	0.33
EFR-27	9.97	9.97	0.00
EFR-28	9.1	9.24	0.14

Total Volume Of Free Standing Product (gal) 5.44

CEMCO FIELD TECHNICIAN: G. Pizzuti

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY

MONTHLY EFR
VAPOR AND LIQUID PHASE VOLUMETRIC CALCULATION LOG

EFR #72 **6-Nov-03**

Well ID	Extraction Time		Vapor Phase Concentration		System Recovery Data			
	TOTAL TIME (min)	TOTAL TIME (hrs)	PPM	LEL (%)	VACUUM In Hg	CFM	lbs/hr	Total lbs
EFR-1	2.0	0.0333	5,248	80	17	100	24.26	0.8087
EFR-2	6.0	0.1000	774	12	17	100	3.58	0.3578
EFR-3	2.0	0.0333	1,574	24	17	100	7.28	0.2426
EFR-4	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-5	2.5	0.0417	426	7	17	100	1.97	0.0821
EFR-6	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-7	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-8	1.0	0.0167	2,362	36	17	100	10.92	0.1819
EFR-9	1.0	0.0167	1,279	20	17	100	5.91	0.0986
EFR-10	4.0	0.0667	1,319	20	17	100	6.10	0.4064
EFR-11	3.0	0.0500	1,496	23	17	100	6.91	0.3457
EFR-12	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-13	2.0	0.0333	5,707	87	17	100	26.38	0.8794
EFR-14	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-15	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-16	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-17	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-18	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-19	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-20	12.0	0.2000	807	12	17	100	3.73	0.7460
EFR-21	8.0	0.1333	1,548	24	17	100	7.16	0.9542
EFR-22	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-23	2.0	0.0333	446	7	17	100	2.06	0.0687
EFR-24	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-25	1.0	0.0167	4,986	76	17	100	23.05	0.3841
EFR-26	2.0	0.0333	984	15	17	100	4.55	0.1516
EFR-27	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-28	1.0	0.0167	446	7	17	100	2.06	0.0344
TOTAL EFR TIME (hrs)		0.8250	AVG PPM	1336.45			TOTAL (lbs)	5.7423
							TOTAL VAPOR PHASE VOLUME (GAL)	0.7354

NOTE: PPM = (% LEL on Meter) x (LEL of Product Mixture) x (1,000,000)
(1) Weighted LEL for analyte mixture @ 0.656% (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WP-B5 & WP-B4)
Analyte LELs: DEHP @ 0.3%; Ethylbenzene @ 1%; Xylenes @ 1.1%

Where:

ppm_v =	Parts per Million by Volume		
Flow =	Cubic feet per minute (CFM)	100	
Molar Mass (MM) =	Molecular Weight (lb/lb-mole) =	292	(2)
IGC =	Ideal Gas Constant (359 ft^3/lb-mole) =	379	
LEL =	Free Product Mixture =	0.656	(1)
SG =	Specific Gravity =	0.9363	(3)

NOTE: (2) Avg. Molar Mass @ 292 (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WP-B5 & WP-B4)
Individual Analyte Molar Mass: DEHP @ 390.54; Ethylbenzene @ 106.2; Total Xylenes @ 106.2
(3) Average specific gravity of 0.9363 (RMT, Inc. product sampling in October 1999 @ MW-1R; EFR-11 & WP-A8)

$$\text{Pounds/Hr (lbs/hr)} = (ppm_v \times (60\ min/hr) \times (CFM) \times (MM)) / ((1 \times 10^6) \times (359\ ft^3/lb\text{-}mole))$$

Free Product & Groundwater Gauging (55-Gal Drum)	
Product Thickness (in)	15.00
Groundwater Thickness (in)	3.00
Conversion @ 1.65 gal/inch	1.65
Total Product Volume (gal)	24.75
Total Groundwater Volume (gal)	4.95
Ratio Groundwater to Free Product (gal/gal)	0.20

		Y (gal)
Total Recovered Groundwater Volume (gal)		4.95
Total Recovered Free Product Volume (gal)		24.75
Total Recovered Fluids Volume (gal)		29.70
TOTAL EFR PRODUCT VOLUME		25.49 GAL

Date	6-Nov-03
Project #	3868.36
Sub contractor	CEMCO
Vac Head Utilized	NORTECH Corp. 551B

CEMCO Field Technician: Gary Pizzuti

RMT Project Manager: Nick Clevett

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY

MONTHLY EFR WELL GAUGING LOG

EFR #73 DATE 31-Dec-03

WELL ID	DEPTH TO PRODUCT (ft)	DEPTH TO WATER (ft)	PRODUCT TICKNESS (ft)
EFR-1	7.94	8.03	0.09
EFR-2	8.59	9.69	1.10
EFR-3	8.53	8.58	0.05
EFR-4	9.76	9.76	0.00
EFR-5	8.5	8.92	0.42
EFR-6	7.76	7.98	0.22
EFR-7	4.85	4.85	0.00
EFR-8	4.18	4.21	0.03
EFR-9	4.42	4.45	0.03
EFR-10	5.17	5.93	0.76
EFR-11	4.51	5.4	0.89
EFR-12	3.78	3.78	0.00
EFR-13	3.35	3.42	0.07
EFR-14	3.11	3.11	0.00
EFR-15	2.65	2.65	0.00
EFR-16	3.88	3.88	0.00
EFR-17	6.58	6.58	0.00
EFR-18	7.35	7.35	0.00
EFR-19	10.14	10.14	0.00
EFR-20	7.97	10.48	2.51
EFR-21	6.96	8.04	1.08
EFR-22	10.12	10.12	0.00
EFR-23	6.71	6.97	0.26
EFR-24	9.75	9.75	0.00
EFR-25	9.37	9.37	0.00
EFR-26	11.28	11.52	0.24
EFR-27	9.42	9.42	0.00
EFR-28	8.43	8.58	0.15

Total Volume Of Free Standing Product (gal) 5.14

CEMCO FIELD TECHNICIAN: G. Pizzuti

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY

MONTHLY EFR
VAPOR AND LIQUID PHASE VOLUMETRIC CALCULATION LOG

EFR #73 **31-Dec-03**

WELL ID	EXTRACTION TIME		VAPOR PHASE CONCENTRATION		INSTRUMENT OPTIMIZATION DATA			
	TOTAL TIME (min)	TOTAL TIME (hrs)	PPM	LEL (%)	VACUUM In Hg	CFM	lbs/hr	Total lbs
EFR-1	1.0	0.0167	1,115	17	17	100	5.16	0.0859
EFR-2	6.0	0.1000	1,260	19	17	100	5.82	0.5822
EFR-3	1.0	0.0167	3,346	51	17	100	15.47	0.2578
EFR-4	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-5	3.0	0.0500	3,674	56	17	100	16.98	0.8491
EFR-6	2.0	0.0333	394	6	17	100	1.82	0.0606
EFR-7	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-8	1.0	0.0167	1,771	27	17	100	8.19	0.1365
EFR-9	0.5	0.0083	1,181	18	17	100	5.46	0.0455
EFR-10	3.0	0.0500	1,319	20	17	100	6.10	0.3048
EFR-11	5.0	0.0833	1,194	18	17	100	5.52	0.4599
EFR-12	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-13	2.0	0.0333	4,330	66	17	100	20.01	0.6671
EFR-14	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-15	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-16	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-17	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-18	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-19	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-20	8.0	0.1333	1,371	21	17	100	6.34	0.8451
EFR-21	6.0	0.1000	1,371	21	17	100	6.34	0.6338
EFR-22	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-23	2.0	0.0333	5,248	80	17	100	24.26	0.8087
EFR-24	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-25	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-26	3.0	0.0500	1,574	24	17	100	7.28	0.3639
EFR-27	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-28	2.0	0.0333	5,248	80	17	100	24.26	0.8087
TOTAL TIME (min)		0.7583	MAX ppm	1563.37			TOTAL (lbs)	6.9095
							TOTAL VAPOR PHASE VOLUME (GAL)	0.8848

NOTE: PPM = (% LEL on Meter) x (LEL of Product Mixture) x (1,000,000)
(1) Weighted LEL for analyte mixture @ 0.656% (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WP-B5 & WP-B4)
Analyte LELs: DEHP @ 0.3%; Ethylbenzene @ 1%; Xylenes @ 1.1%

Where:

ppm, =	Parts per Million by Volume		
Flow =	Cubic feet per minute (CFM)	100	
Molar Mass (MM) =	Molecular Weight (lb/lb-mole) =	292	(2)
IGC =	Ideal Gas Constant (359 ft^3/lb-mole) =	379	
LEL =	Free Product Mixture =	0.656	(1)
SG =	Specific Gravity =	0.9363	(3)

NOTE: (2) Avg. Molar Mass @ 292 (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WP-B5 & WP-B4)
Individual Analyte Molar Mass: DEHP @ 390.54; Ethylbenzene @ 106.2; Total Xylenes @ 106.2
(3) Average specific gravity of 0.9363 (RMT, Inc. product sampling in October 1999 @ MW-1R; EFR-11 & WP-A8)

$$\text{Pounds/Hr (lbs/hr)} = (\text{ppm}_v \times (60\ \text{min/hr}) \times (\text{CFM}) \times (\text{MM})) / ((1 \times 10^6) \times (359\ \text{ft}^3/\text{lb-mole}))$$

Free Product & Groundwater Gauging (55-Gal Drum)	
Product Thickness (in)	8.50
Groundwater Thickness (in)	1.50
Conversion @ 1.65 gal/inch	1.65
Total Product Volume (gal)	14.03
Total Groundwater Volume (gal)	2.48
Ratio Groundwater to Free Product (gal/gal)	0.18

		Y (gal)
Total Recovered Groundwater Volume (gal)		2.48
Total Recovered Free Product Volume (gal)		14.03
Total Recovered Fluids Volume (gal)		16.50
TOTAL EFR PRODUCT VOLUME		14.91 GAL

Date	31-Dec-03
Project #	3868.36
Subcontractor	CEMCO
Vac Head Utilized	NORTECH Corp. 551B

CEMCO Field Technician: Gary Pizzuti

RMT Project Manager: Nick Clevett

[illegible]E 4
L.E. CARPENTER - WHARTON, NEW JERSEY
QUARTERLY MONITORING PROTOCOL

Monitoring Well	Analytical Parameters	Rational	Comments
MW-14S	BTEX(1) DEHP(1)	Analytical results will identify the migration of the dissolved groundwater plume in the Shallow Aquifer Zone downgradient of the site (Wharton Enterprise property)	Monitoring Well added to quarterly sampling protocol beginning 1st Quarter 2002 the further assess groundwater quality and flow within the Wharton Enterprise property.
MW-14I	BTEX(1) DEHP(1)	Analytical results will identify the migration of the dissolved groundwater plume in the Intermediate Aquifer Zone downgradient of the site (Wharton Enterprise property)	Original Monitoring Well
MW-15S	BTEX(1) DEHP(1)	Analytical results will identify if the dissolved groundwater plume is migrating through this portion of the shallow aquifer zone (on the rail spur right-of-way)	Original Monitoring Well
MW-15I	BTEX(1) DEHP(1)	Analytical results will identify the migration of the dissolved groundwater plume through the Intermediate Aquifer Zone in the is area (on rail spur right-of-way)	Original Monitoring Well
MW-22R	BTEX(1) DEHP(1)	Analytical results will identify the movement of the dissolved groundwater plume in the shallow aquifer zone downgradient of the site (Wharton Enterprise property).	Original Monitoring Well. Beginning in 2nd quarter 2001, well will be analyzed for DEHP quarterly vs. semiannually
MW-25R	BTEX(1) DEHP(1)	Analytical results will identify the movement of the dissolved groundwater plume in the shallow aquifer zone downgradient of the site. East of MW-22R (Wharton Enterprise property).	DEHP sampling required quarterly as opposed to semi annually per Nov 23, 1998 NJDEP Letter.
MW-17S	BTEX(1) DEHP(1)	Analytical results from this well will also identify "background" conditions at the site in the shallow aquifer zone.	Original Monitoring Well
MW-4	BTEX(1) DEHP(1)	Analytical results from this well will also identify "background" conditions at the site in the shallow aquifer zone (south portion of subject site, bordering on the Rockaway River)	Original Monitoring Well
MW-11D(R)	DEHP(1)	Analytical results from this well identify potential contamination of deep aquifer. This well lies in the center of the free product plume.	New well added to monitoring protocol as of May 21, 1999 NJDEP Letter (review of 1st quarter 1999 monitoring report). Well exhibited DEHP contamination potentially as the result of draw down during well installation. Well will be sampled for both monito
MW-21	BTEX(1) DEHP(1)	Analytical results from this well will also identify "background" conditions at the site in the shallow aquifer zone. Additionally, data from this well is used to track the potential migratory trend from MW-25 (Eastern most portion of the subject site)	New well added to monitoring protocol as of Nov 23, 1998 NJDEP Letter.

NOTES
(1) Parameter analyzed every quarter
(2) Low flow sampling initiated 1st Quarter 2002 [Ref. Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater (RMT, May 2001]
(3) Beginning 1st Quarter 2002, both BTEX and DEHP will be analyzed every quarter

S: Shallow Hydrogeologic Unit
I: Intermediate Hydrogeologic
D: Deep Hydrogeologic Unit
R: Replacement well

QA/QC PROTOCOL
QA/QC procedures outlined in the Quality Assurance Project Plan (QAPP) included as Appendix A in the report entitled Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater (RMT, May 2001), and amended in the October 23, 2001 responses to agency comments regarding the "Workplan", will be followed during each sampling event.

Field Blank : BTEX & DEHP - USE TRIPLE DISTILLED WATER
Trip Blank: BTEX & DEHP - USE TRIPLE DISTILLED WATER
Rinsate Blank: BTEX & DEHP
Duplicate Sample: BTEX & DEHP

FIELD ANALYSIS
All quarterly monitoring wells will be field tested for pH, temperature, specific conductivity, & turbidity

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS[6]				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)				1	700	1,000	40	30
PRACTICAL QUANTIFICATION LIMIT (PQL)				1	5	5	2	30
MW-4	1995	1	22-Feb-95	< 0.3	26	< 0.3	32	25,000
		2	13-Jun-95	< 0.5	16	< 0.7	13	46,000
		3	13-Sep-95	< 1	9.7	< 1.4	8.7	NA
		4	7-Dec-95	< 0.1	8.8	< 0.14	11	17,000
	1996	1	7-Mar-96	< 0.5	24	< 0.7	47	NA
		2	14-Jun-96	< 0.1	7	< 0.14	7.8	9,300
		3	17-Sep-96	< 0.1	6.8	< 0.14	4.3	NA
		4	12-Dec-96	< 0.1	2.3	< 0.14	< 0.5	11,000
	1997	1	7-Apr-97	< 0.2	3.5	< 0.14	1.8	NA
		2	14-Aug-97	< 0.2	1.2	< 0.14	4.2	120
		3	3-Oct-97	< 0.2	2.2	< 0.14	12.6	NA
		4		NS	NS	NS	NS	NS
	1998	1	12-Mar-98	< 0.4	< 0.28	< 0.28	< 1	NA
		2	4-Jun-98	< 0.2	1.0	< 0.14	1.4	710
		3	28-Aug-98	< 0.2	1.9	< 0.14	1.2	NA
		4	20-Nov-98	< 0.2	9.3	< 0.14	3.3	650
	1999	1	21-Jan-99	< 0.2	1.1	< 0.14	2.5	NA
		2	15-Apr-99	< 0.31	0.66	< 0.34	< 0.4	3,000
		2 duplicate	15-Apr-99	< 0.31	0.43	< 0.34	< 0.4	4,400
		3	22-Jul-99	< 0.31	3.10	< 0.34	2.9	NA
		4	25-Oct-99	< 0.31	0.51	< 0.34	< 0.4	4,000
	2000	1	17-Jan-00	< 0.31	0.54	< 0.34	1.6	NA
		2	13-Apr-00	< 0.25	0.31	< 0.27	< 0.25	480
		3	31-Jul-00	< 0.25	< 0.27	< 0.27	< 0.25	NA
		4	30-Oct-00	< 0.25	< 0.27	< 0.27	0.41	210
		4 duplicate	30-Oct-00	< 0.25	< 0.27	< 0.27	0.33	NA
	2001	1	27-Feb-01	< 0.25	1	< 0.27	3.7	NA
DEHP found in lab blank		2	2-Apr-01	< 0.28	0.31	< 0.26	0.41	300
		3	24-Jul-01	< 0.28	0.52	< 0.26	2.5	NA
		4	26-Oct-01	< 0.28	0.33	< 0.26	0.77	3300
	2002	1	7-Mar-02	< 0.28	< 0.26	< 0.26	< 0.25	150
		2	21-May-02	< 0.22	< 0.18	< 0.24	< 0.2	1300
		2 duplicate	22-May-02	< 0.22	< 0.18	< 0.24	< 0.2	950
Dilution factor 5.0 for bis(2-ethylhexyl)phthalate		3	13-Aug-02	< 0.22	0.54	< 0.24	0.86	670
		4	20-Nov-02	< 0.22	< 0.18	< 0.24	< 0.2	B 8.6
	2003	1	20-Mar-03	< 0.2	< 0.2	< 0.2	< 0.6	46
		2	3-Jun-03	< 0.2	< 0.2	< 0.2	< 0.6	72
		3	20-Aug-03	< 0.2	< 0.2	< 0.2	< 0.6	J 3
		3 duplicate	20-Aug-03	< 0.2	< 0.2	< 0.2	< 0.6	J 7
		4	18-Nov-03	< 0.2	< 0.2	< 0.2	< 0.6	87

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS[5]				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
	NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30
		PRACTICAL QUANTIFICATION LIMIT (PQL)		1	5	5	2	30
MW-11(DR) [2][3]	1999	1	21-Jan-99	< 0.2	< 0.1	< 0.14	< 0.5	64
		1 duplicate	21-Jan-99	< 0.2	< 0.1	< 0.14	< 0.5	20
		2		NS	NS	NS	NS	NS
		3[3]	22-Jul-99	NA	NA	NA	NA	58
		3 duplicate	22-Jul-99	NA	NA	NA	NA	13
		4	25-Oct-99	< 0.31	< 0.38	< 0.34	< 0.4	< 4.1
	2000	1	17-Jan-00	NA	NA	NA	NA	< 4.2
		2	13-Apr-00	< 0.25	< 0.27	< 0.27	< 0.25	< 2
	Field ID: MW-11DD	2 duplicate	13-Apr-00	< 0.25	< 0.27	< 0.27	< 0.25	NA
		3	31-Jul-00	< 0.25	< 0.27	< 0.27	< 0.25	3.4
		4	30-Oct-00	< 0.25	< 0.27	< 0.27	< 0.25	2
DEHP found in lab blank	2001	1	27-Feb-01	< 0.25	< 0.27	< 0.27	< 0.25	0.8
DEHP found in lab blank	Field ID: MW-11DD	1 duplicate	27-Feb-01	< 0.25	< 0.27	< 0.27	< 0.25	0.9
DEHP found in lab blank		2	2-Apr-01	NA	NA	NA	NA	1.5
		3	24-Jul-01	NA	NA	NA	NA	< 0.4
		4	26-Oct-01	NA	NA	NA	NA	0.6
	2002	1	7-Mar-02	< 0.28	< 0.26	< 0.26	< 0.25	2.8
		2	21-May-02	< 0.22	< 0.18	< 0.24	< 0.2	26
		3	13-Aug-02	NA	NA	NA	NA	63
		4	20-Nov-02	NA	NA	NA	NA	B 0.2
	2003	1	20-Mar-03	NA	NA	NA	NA	< 1
		2	3-Jun-03	NA	NA	NA	NA	J 2
		3	20-Aug-03	NA	NA	NA	NA	< 1
		4	18-Nov-03	NA	NA	NA	NA	< 1

TABLE 5

L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS[5]				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
	NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30
		PRACTICAL QUANTIFICATION LIMIT (PQL)		1	5	5	2	30
MW-14S	2002	1	6-Mar-02	< 0.28	< 0.26	< 0.26	< 0.25	1.2
DEHP found in lab blank		2	21-May-02	< 0.22	< 0.18	< 0.24	< 0.2	0.7
		3	13-Aug-02	< 0.22	< 0.18	< 0.24	< 0.2	0.3
		4	20-Nov-02	< 0.22	< 0.18	< 0.24	< 0.2	B 0.5
	2003	1	19-Mar-03	< 0.2	J 0.21	< 0.2	< 0.6	< 0.1
		2	3-Jun-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1
		3	20-Aug-03	< 0.2	< 0.2	< 0.2	< 0.6	J 3
		4	17-Nov-03	< 0.2	< 0.2	< 0.2	< 0.6	J 2

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS[6]				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
	NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30
	PRACTICAL QUANTIFICATION LIMIT (PQL)			1	5	5	2	30
MW-14I	1995	1	22-Feb-95	< 0.3	0.4	< 0.3	1.2	140
		2	13-Jun-95	< 0.1	< 0.14	< 0.14	< 0.5	1.6
		3	13-Sep-95	< 0.1	< 0.14	< 0.14	< 0.5	NA
		4	7-Dec-95	< 0.1	< 0.14	< 0.14	< 0.5	2.6
	1996	1	7-Mar-96	< 0.1	< 0.14	< 0.14	< 0.5	NA
		2	14-Jun-96	< 0.1	< 0.14	< 0.14	< 0.5	< 1.3
		3	17-Sep-96	< 0.1	< 0.14	< 0.14	< 0.5	NA
		4	12-Dec-96	< 0.1	< 0.14	< 0.14	< 0.5	2.7
	1997	1	7-Apr-97	< 0.2	< 0.14	< 0.14	< 0.5	NA
		2	14-Aug-97	< 0.2	< 0.14	< 0.14	< 0.5	1.6
		3	3-Oct-97	1.2	22.1	< 0.7	1.74	NA
		4		NS	NS	NS	NS	NS
	1998	1	12-Mar-98	< 0.2	< 0.14	< 0.14	< 0.5	NA
		2	4-Jun-98	< 0.2	0.34	< 0.14	2	24
		3	28-Aug-98	< 0.2	< 0.14	< 0.14	< 0.5	NA
		4	20-Nov-98	< 0.2	< 0.14	< 0.14	< 0.5	< 1.2
	1999	1	21-Jan-99	< 0.2	< 0.14	< 0.14	< 0.5	NA
		2	15-Apr-99	< 0.31	< 0.38	< 0.34	< 0.4	< 4.1
		3	22-Jul-99	< 0.31	< 0.38	< 0.34	< 0.4	NA
		4	25-Oct-99	< 0.31	< 0.38	< 0.34	< 0.4	< 4.1
	2000	1	17-Jan-00	< 0.31	< 0.38	< 0.34	< 0.4	NA
		2	13-Apr-00	< 0.25	< 0.27	< 0.27	< 0.25	< 2
		3	31-Jul-00	< 0.25	< 0.27	< 0.27	< 0.25	NA
		4	30-Oct-00	< 0.25	< 0.27	< 0.27	< 0.25	< 2
	2001	1	27-Feb-01	< 0.25	< 0.27	< 0.27	< 0.25	2.4
DEHP found in lab blank		2	2-Apr-01	< 0.28	< 0.26	< 0.26	< 0.25	3.5
Field ID: MW-14Id		2 duplicate	2-Apr-01	< 0.28	< 0.26	< 0.26	< 0.25	NA
		3	24-Jul-01	< 0.28	< 0.26	< 0.26	< 0.25	NA
		4	26-Oct-01	< 0.28	< 0.26	< 0.26	< 0.25	2.2
	2002	1	6-Mar-02	< 0.28	< 0.26	< 0.26	< 0.25	3.4
DEHP found in lab blank		2	21-May-02	< 0.22	< 0.18	< 0.24	< 0.2	1.0
		3	13-Aug-02	< 0.22	< 0.18	< 0.24	< 0.2	0.2
		4	20-Nov-02	< 0.22	< 0.18	< 0.24	< 0.2	B 0.3
	2003	1	19-Mar-03	< 0.2	< 0.2	< 0.2	< 0.6	< 0.1
		2	3-Jun-03	< 0.2	< 0.2	< 0.2	< 0.6	< 0.1
		3	20-Aug-03	< 0.2	< 0.2	< 0.2	< 0.6	J 2
		4	17-Nov-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS (5)				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
	NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30
		PRACTICAL QUANTIFICATION LIMIT (PQL		1	5	5	2	30
MW-15S	1995	1	22-Feb-95	< 0.3	< 0.3	< 0.3	< 1	2.4
		2	13-Jun-95	< 0.1	< 0.14	< 0.14	< 0.5	< 1.1
		3	13-Sep-95	< 0.1	< 0.14	< 0.14	< 0.5	NA
		4	7-Dec-95	< 0.1	< 0.14	< 0.14	< 0.5	< 1.2
	1996	1	7-Mar-96	< 0.2	33	< 0.28	93	NA
		2	14-Jun-96	< 0.1	< 0.14	< 0.14	< 0.5	< 1.2
		3	17-Sep-96	< 0.1	< 0.14	< 0.14	< 0.5	NA
		4	12-Dec-96	< 0.1	0.21	< 0.14	1.7	< 1.2
	1997	1	7-Apr-97	< 0.2	< 0.14	< 0.14	< 0.5	NA
		2	14-Aug-97	< 0.2	< 0.14	< 0.14	< 0.5	1.2
		3	3-Oct-97	< 0.2	< 0.14	< 0.14	< 0.5	NA
		4		NS	NS	NS	NS	NS
	1998	1	12-Mar-98	< 0.2	< 0.14	1.4	< 0.5	NA
		2	4-Jun-98	< 0.2	< 0.14	< 0.14	1.3	< 1.1
		3	28-Aug-98	< 0.2	< 0.14	< 0.14	< 0.5	NA
		4	1-Dec-98	< 0.2	< 0.14	< 0.14	< 0.5	< 1.2
	1999	1	21-Jan-99	< 0.2	< 0.14	< 0.14	< 0.5	NA
		2	15-Apr-99	< 0.31	< 0.38	< 0.34	< 0.4	< 4.2
		3	22-Jul-99	< 0.31	< 0.38	< 0.34	< 0.4	NA
		4	25-Oct-99	< 0.31	< 0.38	< 0.34	< 0.4	< 4.1
	2000	1	17-Jan-00	< 0.31	< 0.38	< 0.34	< 0.4	NA
		2	13-Apr-00	< 0.25	< 0.27	< 0.27	< 0.25	< 2
		3	31-Jul-00	< 0.25	< 0.27	< 0.27	< 0.25	NA
		4	30-Oct-00	< 0.25	< 0.27	< 0.27	< 0.25	< 2
	2001	1	27-Feb-01	< 0.25	< 0.27	< 0.27	< 0.25	NA
DEHP found in lab blank		2	2-Apr-01	< 0.28	< 0.26	< 0.26	< 0.25	0.8
		3	24-Jul-01	< 0.28	< 0.26	< 0.26	< 0.25	NA
		4	26-Oct-01	< 0.28	< 0.26	< 0.26	< 0.25	< 0.4
	2002	1	7-Mar-02	< 0.28	< 0.26	< 0.26	< 0.25	1.0
DEHP found in lab blank		2	20-May-02	< 0.22	< 0.18	< 0.24	< 0.2	0.7
		3	13-Aug-02	< 0.22	< 0.18	< 0.24	< 0.2	0.2
		4	20-Nov-02	< 0.22	< 0.18	< 0.24	< 0.2	B 0.2
	2003	1	19-Mar-03	< 0.2	< 0.2	< 0.2	< 0.6	< 0.1
		2	3-Jun-03	< 0.2	< 0.2	< 0.2	< 0.6	8
		3	20-Aug-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1
		4	18-Nov-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS[6]				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
	NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30
		PRACTICAL QUANTIFICATION LIMIT (PQL)		1	5	5	2	30
MW-15I	1995	1	22-Feb-95	< 0.3	< 0.3	< 0.3	< 1	259
		2	13-Jun-95	< 0.1	< 0.14	< 0.14	< 0.5	7.2
		3	13-Sep-95	< 0.1	< 0.14	< 0.14	< 0.5	NA
		4	7-Dec-95	< 0.1	< 0.14	< 0.14	< 0.5	2.8
	1996	1	7-Mar-96	< 0.1	< 0.14	< 0.14	< 0.5	NA
		2	14-Jun-96	< 0.1	< 0.14	< 0.14	< 0.5	1.2
		3	17-Sep-96	< 0.1	< 0.14	< 0.14	< 0.5	NA
		4	12-Dec-96	< 0.1	< 0.14	< 0.14	< 0.5	1.7
		4 duplicate	12-Dec-96	< 0.1	< 0.14	< 0.14	< 0.5	1.9
	1997	1	7-Apr-97	< 0.2	< 0.14	< 0.14	< 0.5	NA
		2	14-Aug-97	< 0.2	< 0.14	< 0.14	< 0.5	2.2
		3	3-Oct-97	< 0.2	< 0.14	< 0.14	< 0.5	NA
		4		NS	NS	NS	NS	NS
	1998	1	12-Mar-98	< 0.2	< 0.14	< 0.14	< 0.5	NA
		2	4-Jun-98	< 0.2	< 0.14	< 0.14	< 0.5	1.9
		2 duplicate	4-Jun-98	< 0.2	< 0.14	< 0.14	< 0.5	3.8
		3	28-Aug-98	< 0.2	< 0.14	< 0.14	< 0.5	NA
		4	20-Nov-98	< 0.2	< 0.14	< 0.14	0.53	11
		4 duplicate	20-Nov-98	< 0.2	0.2	< 0.14	0.8	9.8
	1999	1	21-Jan-99	< 0.2	< 0.14	< 0.14	< 0.5	NA
		2	15-Apr-99	< 0.31	< 0.38	< 0.34	< 0.4	4.8
		3	22-Jul-99	< 0.31	< 0.38	< 0.34	< 0.4	NA
		4	25-Oct-99	< 0.31	< 0.38	< 0.34	< 0.4	4.1
	2000	1	17-Jan-00	< 0.31	< 0.38	< 0.34	< 0.4	NA
		2	13-Apr-00	< 0.25	< 0.27	< 0.27	< 0.25	2
		3	31-Jul-00	< 0.25	< 0.27	< 0.27	< 0.25	NA
		4	30-Oct-00	< 0.25	< 0.27	< 0.27	< 0.25	2
	2001	1	27-Feb-01	< 0.25	< 0.27	< 0.27	< 0.25	NA
DEHP found in lab blank		2	2-Apr-01	< 0.28	< 0.26	< 0.26	< 0.25	1.2
		3	24-Jul-01	< 0.28	< 0.26	< 0.26	< 0.25	NA
		4	26-Oct-01	< 0.28	< 0.26	< 0.26	< 0.25	0.5
	2002	1	7-Mar-02	< 0.28	< 0.26	< 0.26	< 0.25	1.0
		2	21-May-02	< 0.22	< 0.18	< 0.24	< 0.2	0.5
		3	13-Aug-02	< 0.22	< 0.18	< 0.24	< 0.2	< 0.2
		4	20-Nov-02	< 0.22	< 0.18	< 0.24	< 0.2	B 0.2
	2003	1	19-Mar-03	< 0.2	< 0.2	< 0.2	< 0.6	< 0.1
		2 duplicate	3-Jun-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1
		3	20-Aug-03	< 0.2	< 0.2	< 0.2	< 0.6	< 0.9
		4	18-Nov-03	< 0.2	< 0.2	< 0.2	< 0.6	J 4

TABLE 5

L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS[5]				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
	NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30
		PRACTICAL QUANTIFICATION LIMIT (PQL)		1	5	5	2	30
MW-17S [4]	1995	1	24-Feb-95	< 0.3	0.6	0.3	1.9	11
		2	13-Jun-95	0.2	< 0.14	0.18	< 0.5	< 1.1
		3		NS	NS	NS	NS	NS
		4	7-Dec-95	< 0.1	< 0.14	< 0.14	0.63	< 1.2
	1996	1		NS	NS	NS	NS	NS
		2	14-Jun-96	< 0.1	< 0.14	< 0.14	< 0.5	< 1.3
		3		NS	NS	NS	NS	NS
		4	12-Dec-96	< 0.1	< 0.14	< 0.14	< 0.5	1.5
	1997	1		NA	NA	NA	NA	NA
		2	14-Aug-97	< 0.2	< 0.14	< 0.14	< 0.5	< 1.3
		3		NS	NS	NS	NS	NS
		4		NS	NS	NS	NS	NS
	1998	1		NS	NS	NS	NS	NS
		2	4-Jun-98	< 0.2	< 0.14	< 0.14	1.2	6.1
		3		NS	NS	NS	NS	NS
		4	1-Dec-98	< 0.2	< 0.14	< 0.14	< 0.5	6
	1999	1		NS	NS	NS	NS	NS
		2	15-Apr-99	< 0.31	< 0.38	< 0.34	< 0.4	< 4.1
		3		NS	NS	NS	NS	NS
		4	25-Oct-99	< 0.31	< 0.38	< 0.34	< 0.4	40
	2000	1		NS	NS	NS	NS	NS
		2	13-Apr-00	< 0.25	< 0.27	< 0.27	< 0.25	< 2
		3		NS	NS	NS	NS	NS
		4	30-Oct-00	< 0.25	< 0.27	< 0.27	< 0.25	< 2
DEHP found in lab blank	2001	2	2-Apr-01	< 0.28	< 0.26	< 0.26	< 0.25	1.8
		4	26-Oct-01	< 0.28	< 0.26	< 0.26	< 0.25	9.6
	2002	1	6-Mar-02	< 0.28	< 0.26	< 0.26	< 0.25	1.0
Sample designation DUP01		1 duplicate	6-Mar-01	< 0.28	< 0.26	< 0.26	< 0.25	1.6
DEHP found in lab blank		2	20-May-02	< 0.22	< 0.18	< 0.24	< 0.2	0.6
		3	13-Aug-02	< 0.22	< 0.18	< 0.24	< 0.2	0.2
		4	21-Nov-02	< 0.22	< 0.18	< 0.24	< 0.2	B 0.2
	2003	1	19-Mar-03	< 0.2	< 0.2	< 0.2	< 0.6	< 0.1
		2	3-Jun-03	< 0.2	< 0.2	< 0.2	< 0.6	< 0.9
		3	20-Aug-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1
		4	18-Nov-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS[5]				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
	NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30
		PRACTICAL QUANTIFICATION LIMIT (PQL)		1	5	5	2	30
MW-21 [1]	1999	1	21-Jan-99	< 0.2	< 0.14	< 0.14	< 0.5	< 4.2
		2	15-Apr-99	< 0.31	< 0.38	< 0.34	< 0.4	< 4.2
		3	22-Jul-99	< 0.31	< 0.38	< 0.34	< 0.4	< 4.3
		4	25-Oct-99	< 0.31	< 0.38	< 0.34	< 0.4	< 4.1
	2000	1	17-Jan-00	< 0.31	< 0.38	< 0.34	< 0.4	6
		1 duplicate	17-Jan-00	NA	NA	NA	NA	< 4.2
		2	13-Apr-00	< 0.25	< 0.27	< 0.27	< 0.24	< 2.1
		3	31-Jul-00	< 0.25	< 0.27	< 0.27	< 0.25	< 2
		4	30-Oct-00	< 0.25	< 0.27	< 0.27	< 0.25	< 2
DEHP found in lab blank	2001	1	27-Feb-01	< 0.25	< 0.27	< 0.27	< 0.25	2.7
DEHP found in lab blank		2	2-Apr-01	< 0.28	< 0.26	< 0.26	< 0.25	0.9
		3	24-Jul-01	< 0.28	< 0.26	< 0.26	< 0.25	0.9
		4	26-Oct-01	< 0.28	< 0.26	< 0.26	< 0.25	0.6
	2002	1	6-Mar-02	< 0.28	< 0.26	< 0.26	< 0.25	1.3
DEHP found in lab blank		2	22-May-02	< 0.22	< 0.18	< 0.24	< 0.2	1
		3	13-Aug-02	< 0.22	< 0.18	< 0.24	< 0.2	0.3
Sample designation DUPE-001		3 duplicate	13-Aug-02	< 0.22	< 0.18	< 0.24	< 0.2	0.4
		4	19-Nov-02	< 0.22	< 0.18	< 0.24	< 0.2	B 0.3
	2003	1	18-Mar-03	< 0.2	< 0.2	< 0.2	< 0.6	< 0.1
		2	3-Jun-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1
			20-Aug-03	< 0.2	< 0.2	< 0.2	< 0.6	J 2
		4	17-Nov-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS[6]				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
	NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30
		PRACTICAL QUANTIFICATION LIMIT (PQL)		1	5	5	2	30
MW-22(R)	1995	1	21-Feb-95	< 0.3	57	< 0.3	260	6,500
		2	13-Jun-95	< 2.5	311	< 3.5	955	380
		3	13-Sep-95	< 2.5	171	< 3.5	693	NA
		4	7-Dec-95	< 2	123	< 2.8	494	320
	1996	1		NS	NS	NS	NS	NS
		2	8-Jul-96	< 2	258	< 2.8	941	70
		3	17-Sep-96	< 2.5	359	< 3.5	1,920	NA
		4	12-Dec-96	< 5	320	< 7	1,830	< 1.2
	1997	1		NS	NS	NS	NS	NS
		2	14-Aug-97	< 200	5,730	< 140	32,900	7,500
		3	3-Oct-97	< 400	11,400	< 280	66,000	NA
		4		NS	NS	NS	NS	NS
	1998	1	12-Mar-98	< 200	4,070	348	20,600	NA
		2	4-Jun-98	< 40	2,260	< 28	11,300	5,800
		3	28-Aug-98	< 50	1980	< 35	10300	NA
		3duplicate	28-Aug-98	< 50	2,510	< 35	11,000	NA
		4	20-Nov-98	< 40	1,650	< 28	7,230	1,100
	1999	1	21-Jan-99	< 0.4	18	< 0.28	84	NA
		2	15-Apr-99	< 31	1,600	< 34	7,600	670
		3	22-Jul-99	< 31	1,200	42	5,200	NA
		4	25-Oct-99	< 16	810	< 17	3,300	1200
		4duplicate	25-Oct-99	< 31	840	< 34	3,400	1600
	2000	1	17-Jan-00	< 7.8	360	< 8.5	1,400	NA
Dilution Factor 50		2	13-Apr-00	< 12	820	< 14	3,600	92
Dilution Factor 200		3	31-Jul-00	< 50	1,000	< 54	4,800	NA
Dilution Factor 50 and 250 for DEHP and BTEX respectively		4	30-Oct-00	< 62	1,200	< 68	6,200	5,100
Dilution Factor 200	2001	1	27-Feb-01	< 50	1,900	< 54	9,000	NA
Dilution Factor 20 and 100 for DEHP and BTEX respectively. DEHP found in lab blank		2	2-Apr-01	< 26	810	< 26	4,100	2,400
Dilution factor 100 for BTEX, 50 for DEHP. DEHP detected in field blank		3	24-Jul-01	< 26	1,100	< 26	5,300	8,200
Dilution Factor 100		4	26-Oct-01	< 26	880	< 26	4,700	15,000
Dilution Factor 100		4duplicate	26-Oct-01	< 26	1,000	< 26	4,900	NA
Dilution factors - 10 for BTEX, 2 for DEHP.	2002	1	6-Mar-02	< 2.6	140	< 2.6	420	18
Dilution factors - 50 for BTEX, 1 for DEHP		2	22-May-02	< 11	320	< 12	1,400	21
Dilution factors - 50 for BTEX, 1 for DEHP		3	13-Aug-02	< 11	180	< 12	1,400	13
Dilution factor - 25 for BTEX		4	20-Nov-02	< 5.5	310	< 6	1,000	B 6.3

TABLE 5
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MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS[5]				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
	NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30
	PRACTICAL QUANTIFICATION LIMIT (PQL)			1	5	5	2	30
MW-22(R)								
Dilution factor - 5 for total xylenes and ethylbenzene	2003	1	18-Mar-03	< 1	540	< 0.2	2,000	54.0
Dilution factors - 8 for BTEX; 3 for DEHP		2	3-Jun-03	< 1	690	< 1	2,800	170.0
		3	20-Aug-03	< 1	210	< 1	1,200	260.0
Dilution factor - 5 for total xylenes, 25 for DEHP		4	17-Nov-03	J 0.2	190	< 0.2	940	2,200.0
Dupe-01		4 duplicate	17-Nov-03	J 0.2	180	< 0.2	920	910.0

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MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS[5]				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)				1	700	1,000	40	30
PRACTICAL QUANTIFICATION LIMIT (PQL)				1	5	5	2	30
MW-25(R)	1995	1		NS	NS	NS	NS	NS
		2	14-Jun-95	< 0.2	< 0.2	< 0.2	< 1	1.6
		3	13-Sep-95	< 0.1	< 0.14	< 0.14	< 0.5	NA
		4	7-Dec-95	< 0.1	< 0.14	< 0.14	< 0.5	[illegible]
	1996	1		NS	NS	NS	NS	NS
		2	14-Jun-96	< 0.1	< 0.14	< 0.14	< 0.5	< 1.2
		3	17-Sep-96	< 0.1	0.34	< 0.14	2.2	NA
		4	12-Dec-96	< 0.1	< 0.14	< 0.14	< 0.5	< 1.3
	1997	1	7-Apr-97	< 0.2	< 0.14	< 0.14	< 0.5	NA
		2	14-Aug-97	< 0.2	13.5	< 0.14	[illegible]	[illegible]
		3	3-Oct-97	< 0.2	4.1	< 0.14	30.7	NA
		4		NS	NS	NS	NS	NS
	1998	1	12-Mar-98	< 0.2	0.33	< 0.14	1.5	NA
		1 duplicate	12-Mar-98	< 0.2	0.39	< 0.14	0.94	NA
		2	4-Jun-98	< 0.2	< 0.14	< 0.14	< 0.5	5.3
		3	28-Aug-98	< 0.2	< 0.14	< 0.14	< 0.5	NA
		4	20-Nov-98	< 0.2	< 0.14	< 0.14	< 0.5	1.9
	1999	1	21-Jan-99	< 0.2	< 0.14	< 0.14	< 0.5	< 4.3
		2	15-Apr-99	< 0.31	< 0.38	< 0.34	14	< 4.1
		3	22-Jul-99	< 0.31	< 0.38	< 0.34	1.4	9.6
		4	25-Oct-99	< 0.31	< 0.38	< 0.34	< 0.4	< 4.2
	2000	1	1-Mar-00	< 0.31	< 0.38	< 0.34	< 0.4	< 3.5
		2	13-Apr-00	< 0.25	< 0.27	< 0.27	< 0.25	< 2
		3	31-Jul-00	< 0.25	< 0.27	< 0.27	< 0.25	< 2
Field ID: MW-25RD		3 duplicate	31-Jul-00	NA	NA	NA	NA	< 2
		4	30-Oct-00	< 0.25	0.33	< 0.27	1.1	3.4
DEHP found in lab blank	2001	1	27-Feb-01	< 0.25	< 0.27	< 0.27	< 0.25	1.9
DEHP found in lab blank		2	2-Apr-01	< 0.28	< 0.26	< 0.26	< 0.25	1.4
		3	24-Jul-01	< 0.28	< 0.26	< 0.26	< 0.25	0.5
Field ID: MW-25D		3 duplicate	24-Jul-01	NA	NA	NA	NA	1.2
		4	26-Oct-01	< 0.28	< 0.26	< 0.26	< 0.25	0.7
	2002	1	6-Mar-02	< 0.28	< 0.26	< 0.26	< 0.25	0.5
DEHP found in lab blank		2	22-May-02	< 0.22	< 0.18	< 0.24	< 0.2	1.1
		3	13-Aug-02	< 0.22	< 0.18	< 0.24	< 0.2	0.2
		4	20-Nov-02	< 0.22	< 0.18	< 0.24	< 0.2	< 0.3
Dupe-01		4 duplicate	20-Nov-02	< 0.22	< 0.18	< 0.24	< 0.2	B 0.2
	2003	1	18-Mar-03	< 0.2	< 0.2	< 0.2	< 0.6	< 0.1
		2	3-Jun-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1
		3	20-Aug-03	< 0.2	< 0.2	< 0.2	< 0.6	J 7
		4	17-Nov-03	< 0.2	< 0.2	< 0.2	< 0.6	J 1

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
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MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS[5]				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
	NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30
		PRACTICAL QUANTIFICATION LIMIT (PQL)		1	5	5	2	30
Trip Blank	1995	1	27-Feb-95	< 0.3	< 0.3	< 0.3	< 1	NA
		2	12-Jun-95	< 0.1	< 0.14	< 0.14	< 0.5	NA
		3	12-Sep-95	< 0.1	< 0.14	< 0.14	< 0.5	NA
		4	7-Dec-95	< 0.1	< 0.14	< 0.14	< 0.5	NA
	1996	1	6-Mar-96	< 0.1	< 0.14	< 0.14	< 0.5	NA
		2	12-Jun-96	< 0.1	< 0.14	< 0.14	< 0.5	NA
		3	16-Sep-96	< 0.1	< 0.14	< 0.14	< 0.5	NA
		4	12-Dec-96	< 0.1	< 0.14	< 0.14	< 0.5	NA
	1997	1	7-Apr-97	< 0.2	< 0.14	< 0.14	< 0.5	NA
		2	13-Aug-97	< 0.2	< 0.14	< 0.14	< 0.5	NA
		3	3-Oct-97	< 0.2	< 0.14	< 0.14	< 0.5	NA
		4		NS	NS	NS	NS	NS
	1998	1	12-Mar-98	< 0.2	< 0.14	< 0.14	< 0.5	NA
		2	4-Jun-98	< 0.2	< 0.14	< 0.14	< 0.5	ND
		3	28-Aug-98	< 0.2	< 0.14	< 0.14	< 0.5	NA
		4	20-Nov-98	< 0.2	< 0.14	< 0.14	< 0.5	NA
	1999	1	21-Jan-99	< 0.2	< 0.14	< 0.14	< 0.5	NA
		2	15-Apr-99	< 0.31	< 0.38	< 0.34	< 0.4	NA
		3	22-Jul-99	NA	NA	NA	NA	< 4.2
		4	25-Oct-99	< 0.31	< 0.38	< 0.34	< 0.4	NA
	2000	1	17-Jan-00	NA	NA	NA	NA	< 4.1
		1	1-Mar-00	NA	NA	NA	NA	< 3.8
		2	13-Apr-00	< 0.25	< 0.27	< 0.27	< 0.25	NA
		3	31-Jul-00	NA	NA	NA	NA	< 2
		4	30-Oct-00	< 0.25	< 0.27	< 0.27	< 0.25	NA
DEHP found in lab blank	2001	1	27-Feb-01	NA	NA	NA	NA	0.6
		2	2-Apr-01	< 0.28	< 0.26	< 0.26	< 0.25	NA
Performed for Lab No. N067 (MW22R DEHP sample). STL forgot to sample DEHP at this well on first round		3	24-Jul-01	NA	NA	NA	NA	< 0.4
		3	24-Jul-01	NA	NA	NA	NA	< 0.4
		4	26-Oct-01	< 0.28	< 0.26	< 0.26	< 0.25	NA
	2002	1	5-Mar-02	< 0.28	< 0.26	< 0.26	< 0.25	NA
		2	20-May-02	< 0.22	< 0.18	< 0.24	< 0.2	NA
		3	12-Aug-02	< 0.22	< 0.18	< 0.24	< 0.2	180
TB-01		4	19-Nov-02	< 0.22	< 0.18	< 0.24	< 0.2	B 0.2
	2003	1	19-Mar-03	< 0.2	< 0.2	< 0.2	< 0.6	< 0.1
		2	4-Jun-03	< 0.2	< 0.2	< 0.2	< 0.6	NA
		3	20-Aug-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1
		4	18-Nov-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1

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MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS[5]				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
	NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30
	PRACTICAL QUANTIFICATION LIMIT (PQL)			1	5	5	2	30
Rinsate Sample	2002	1		ND	ND	0.7	ND	2.5
DEHP found in lab blank		2	22-May-02	< 0.22	< 0.18	< 0.24	< 0.2	3.4
Rinsate -001		3	13-Aug-02	< 0.22	< 0.18	< 0.24	< 0.2	4.5
Rinsate-01		4	20-Nov-02	< 0.22	< 0.18	< 0.24	< 0.2	B 0.3
	2003	1	19-Mar-03	< 0.2	< 0.2	< 0.2	< 0.6	< 0.1
		2	3-Jun-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1
		3	20-Aug-03	< 0.2	< 0.2	< 0.2	< 0.6	J 2
		4	18-Nov-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1

TABLE 5

L.E. CARPENTER - Wharton, New Jersey
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MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS[5]				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
	NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30
		PRACTICAL QUANTIFICATION LIMIT (PQL)		1	5	5	2	30
Field Blank	1995	1	27-Feb-95	< 0.3	< 0.3	< 0.3	< 1	< 1.1
		2	13-Jun-95	< 0.1	< 0.14	< 0.14	< 0.5	1.3
		3	13-Sep-95	< 0.1	< 0.14	< 0.14	< 0.5	NA
		4	7-Dec-95	< 0.1	< 0.14	< 0.14	< 0.5	< 1.2
	1996	1	7-Mar-96	< 0.1	< 0.14	< 0.14	< 0.5	NA
		2	14-Jun-96	< 0.1	< 0.14	< 0.14	< 0.5	< 1.4
		3	17-Sep-96	< 0.1	< 0.14	< 0.14	< 0.5	NA
		4	12-Dec-96	< 0.1	< 0.14	< 0.14	< 0.5	< 1.2
	1997	1	7-Apr-97	< 0.2	< 0.14	0.2	< 0.5	NA
		2	14-Aug-97	< 0.2	< 0.14	< 0.14	< 0.5	< 1.1
		3	3-Oct-97	< 0.2	< 0.14	< 0.14	< 0.5	NA
		4		NS	NS	NS	NS	NS
	1998	1	12-Mar-98	< 0.2	< 0.14	< 0.14	< 0.5	NA
		2	4-Jun-98	< 0.2	< 0.14	< 0.14	< 0.5	< 1.1
		3	28-Aug-98	< 0.2	< 0.14	< 0.14	< 0.5	NA
		4	20-Nov-98	< 0.2	< 0.14	< 0.14	< 0.5	1.3
	1999	1	21-Jan-99	< 0.2	< 0.14	< 0.14	< 0.5	< 4.4
		2	15-Apr-99	< 0.31	< 0.38	< 0.34	< 0.4	< 4.4
		3	22-Jul-99	< 0.31	< 0.38	< 0.34	< 0.4	< 4.3
		4	25-Oct-99	< 0.31	< 0.38	< 0.34	< 0.4	< 4.6
	2000	1	17-Jan-00	< 0.31	< 0.38	< 0.34	< 0.4	< 4.2
		1	1-Mar-00	< 0.31	< 0.38	< 0.34	< 0.4	< 4.2
		1	16-Mar-00	NA	NA	NA	NA	3.2
		2	13-Apr-00	< 0.25	< 0.27	< 0.27	< 0.25	< 2
		3	31-Jul-00	< 0.25	< 0.27	< 0.27	< 0.25	< 2
		4	30-Oct-00	< 0.25	< 0.27	< 0.27	< 0.25	< 2
DEHP found in lab blank	2001	1	27-Feb-01	< 0.25	< 0.27	< 0.27	< 0.25	1.3
DEHP found in lab blank		2	2-Apr-01	< 0.28	< 0.26	< 0.26	< 0.25	2
Performed for Lab No. N067 (MW22R DEHP sample). STL forgot to sample DEHP at this well on first round		3		NA	NA	NA	NA	1.2
		3	24-Jul-01	< 0.28	< 0.26	< 0.26	< 0.25	< 0.5
		4	26-Oct-01	< 0.28	< 0.26	< 0.26	< 0.25	< 0.4
	2002	1	6-Mar-02	< 0.28	< 0.26	< 0.26	< 0.25	16
		2	22-May-02	< 0.22	< 0.18	< 0.24	< 0.2	130
FB-001		3	13-Aug-02	< 0.22	< 0.18	< 0.24	< 0.2	0.5
FB-01		4	20-Nov-02	< 0.22	< 0.18	< 0.24	< 0.2	B 0.4
	2003	1	19-Mar-03	< 0.2	< 0.2	< 0.2	< 0.6	< 0.1
		2	3-Jun-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1
		3	20-Aug-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1
		4	17-Nov-03	< 0.2	< 0.2	< 0.2	< 0.6	< 1

TABLE 5

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MONITORING WELLS	SAMPLING DATE			CHEMICAL ANALYSIS RESULTS[5]				
	YEAR	QUARTER	SAMPLING DATE	Benzene	Ethylbenzene	Toluene	Total Xylenes	DEHP
				ug/l	ug/l	ug/l	ug/l	ug/l
	NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30
		PRACTICAL QUANTIFICATION LIMIT (PQL)		1	5	5	2	30

GENERAL NOTES PAGE

LEGEND
ug/L: micrograms per liter
NJGWQS: New Jersey Groundwater Quality Standards
NS: Not Sampled
NA: Not Analyzed
duplicate: Duplicate sample
B: Analyte found in laboratory blank as well as sample.
DEHP: bis-2-Ethylhexylphthalate

SAMPLING NOTES
(1) MW-21 Quarterly sampling required for both DEHP and BTEX as of NJDEP letter dated Nov 23, 1998
(2) MW-11(IR) & MW-11(DR) sampled for both DEHP and BTEX per NJDEP letter dated Nov 23, 1998 (one time sample round- baseline concentration)
(3) MW-11D required to be sampled quarterly per NJDEP letter dated August 17, 1999. Third quarter 1999 sampling was performed prior to receiving the NJDEP letter. Subsequently, the well was only sampled for DEHP. Starting 4th quarter 1999, MW-11D will be sampled for both DEHP and BTEX. Based on NJDEP letter dated April 5, 2001, this well will be sampled for DEHP only (starting 2nd qtr 2001).
(4) Well initially sampled Biannually - 2nd and 4th Quarter as of the beginning of 1998. 1st quarter 2002, well sampled quarterly for both DEHP and BTEX.
(5) Low flow sampling initiated 1st quarter 2002.

15,000 Above the NJDEP NJGWQS

TABLE 6

4th Quarter 2003

L.E. Carpenter and Company, Wharton, New Jersey

Quarterly Groundwater Elevations November 17, 2003

WELL LOCATION	WELL TYPE	ELEVATIONS (FT. MSL)										
		GROUND	OUTER CASING	INNER WELL	PRODUCT DEPTH	WATER DEPTH	PRODUCT ELEVATION	WATER ELEVATION	PRODUCT THICKNESS (ft)	CORRECTED WATER ELEVATIONS [2]	MAX. WATER ELEVATIONS	MIN. WATER ELEVATIONS
CW-1	Caisson Well	630.83	634.35		-	7.04	-	623.79	-	-	627.60	621.01
CW-3	Caisson Well	628.63	633.30		-	7.04	-	621.59	-	-	626.92	619.22
GEI-1I	Piezometer	628.44	630.93	630.78	-	3.97	-	626.81	-	-	627.58	623.04
GEI-2I	Piezometer	635.92	638.35	638.20	-	10.05	-	628.15	-	-	630.22	624.14
GEI-2S	Piezometer	635.46	637.87	637.67	-	10.01	-	627.66	-	-	629.26	623.65
GEI-3I	Piezometer	637.56	639.99	639.85	-	12.20	-	627.65	-	-	630.17	623.53
MW-1(R)	Monitoring Well	635.79	635.78	635.47	8.71	9.61	626.76	625.86	0.90	626.70	628.99	623.68
MW-2(R)	Monitoring Well	629.06	632.28	632.14	-	5.85	-	626.29	-	-	627.05	623.46
MW-3	Monitoring Well	628.64	632.27	632.56	6.15	7.29	626.41	625.27	1.14	626.34	627.28	622.69
MW-4 [3]	Monitoring Well	628.86	632.31	632.50	-	5.91	-	626.59	-	-	628.05	622.71
MW-6(R)	Monitoring Well	629.82	632.64	632.42	-	6.78	-	625.64	-	-	627.89	623.94
MW-8 [5]	Monitoring Well	627.99	630.56	628.79	-	2.76	-	626.03	-	-	628.52	622.23
MW-9 [5]	Monitoring Well	629.21	631.69	630.18	-	3.58	-	626.60	-	-	627.94	623.30
MW-11S	Monitoring Well	631.23	633.26	632.96	6.55	12.49	626.41	620.47	5.94	626.03	629.37	622.18
MW-11I(R)	Monitoring Well	630.89	633.67	633.33	-	6.80	-	626.53	-	-	632.25	621.87
MW-11D(R) [5]	Monitoring Well	630.66	633.35	633.09	-	4.18	-	628.91	-	-	631.59	624.72
MW-12S(R)	Monitoring Well	632.17	634.86	634.33	-	8.09	-	626.24	-	-	628.16	623.71
MW-13S	Monitoring Well	628.34	631.40	631.23	-	5.30	-	625.93	-	-	627.85	622.58
MW-13S(R)	Monitoring Well	628.26	630.96	630.59	-	4.41	-	626.18	-	-	626.72	622.73
MW-13I	Monitoring Well	628.36	630.88	630.66	-	4.29	-	626.37	-	-	627.86	622.50
MW-14S	Monitoring Well	625.78	628.63	628.41	-	2.65	-	625.76	-	-	626.27	622.24
MW-14I [5]	Monitoring Well	625.93	628.32	628.23	-	1.96	-	626.27	-	-	627.23	622.38
MW-15S [5]	Monitoring Well	634.83	637.03	636.77	-	9.83	-	626.94	-	-	628.45	622.89
MW-15I [5]	Monitoring Well	634.74	636.88	636.66	-	9.71	-	626.95	-	-	628.43	622.89
MW-16S	Monitoring Well	632.57	634.69	634.47	-	7.16	-	627.31	-	-	629.62	623.28
MW-16I	Monitoring Well	632.43	635.08	634.96	-	7.49	-	627.47	-	-	629.29	623.36
MW-17S [5]	Monitoring Well	632.95	634.92	634.79	-	7.62	-	627.17	-	-	629.53	622.97
MW-18S	Monitoring Well	628.22	631.48	631.26	-	4.68	-	626.58	-	-	626.78	622.98
MW-18I	Monitoring Well	628.35	631.19	631.04	-	4.22	-	626.82	-	-	627.48	619.21
MW-19 [9]	Monitoring Well	636.82	636.83	636.50	-	8.63	-	627.87	-	-	629.35	623.74
MW-19-1 [9]	Monitoring Well	636.53	636.56	636.24	-	8.40	-	627.84	-	-	628.64	624.56
MW-19-2 [9]	Monitoring Well	637.06	637.10	636.90	-	9.09	-	627.81	-	-	628.33	624.55
MW-19-3 [9]	Monitoring Well	637.57	637.66	637.30	-	9.43	-	627.87	-	-	628.52	624.67
MW-19-4 [9]	Monitoring Well	636.29	636.36	636.03	-	8.11	-	627.92	-	-	629.26	623.60
MW-19-5 [9]	Monitoring Well	636.53	636.53	636.16	-	8.36	-	627.80	-	-	628.13	624.45
MW-19-6 [4][9]	Monitoring Well	636.77	636.76	636.42	-	8.62	-	627.80	-	-	628.18	624.96
MW-19-7 [4][9]	Monitoring Well	635.91	635.96	635.60	-	7.89	-	627.71	-	-	627.98	624.87
MW-19-8 [4][9]	Monitoring Well	636.42	636.42	635.96	-	8.35	-	627.61	-	-	627.98	624.88
MW-19-9D [4][9]	Monitoring Well	636.99	637.01	636.70	-	8.28	-	628.42	-	-	628.51	624.80
MW-20	Monitoring Well	634.82	637.03	636.77	-	8.34	-	628.43	-	-	630.45	623.55
MW-21 [3]	Monitoring Well	625.17	629.09	628.80	-	2.90	-	625.90	-	-	626.70	622.00
MW-22(R) [3]	Monitoring Well	625.94	628.31	628.13	-	2.50	-	625.63	-	-	627.60	622.29
MW-23	Monitoring Well	628.70	630.95	630.64	-	4.02	-	626.62	-	-	628.44	624.64
MW-25(R) [3]	Monitoring Well	625.25	627.37	627.22	-	1.89	-	625.33	-	-	626.83	622.21
MW-26	Monitoring Well	630.84	634.39	633.26	-	8.02	-	625.24	-	-	626.94	622.15
RW-1	Recovery Well	635.19	637.81	637.38	10.99	11.09	626.39	626.29	0.10	626.38	628.82	622.77
RW-2	Recovery Well	629.80	631.78	631.68	-	5.47	-	626.21	-	-	627.61	622.51
RW-3	Recovery Well	629.89	632.15	631.99	-	5.75	-	626.24	-	-	627.14	622.64
SG-D1 [1]	Drainage Channel Staff Gauge	626.41	-	-	-	1.40	-	624.48	-	-	625.61	623.08
SG-D2 [1]	Drainage Channel Staff Gauge	626.86	-	-	-	1.20	-	624.73	-	-	626.86	623.53
SG-D3 [1]	Drainage Channel Staff Gauge	626.43	-	-	-	1.68	-	624.78	-	-	624.88	623.40
SG-R1 [1]	Rockaway River Staff Gauge	641.52	-	-	-	1.56	-	639.75	-	-	653.28	639.50
SG-R2 [1]	Rockaway River Staff Gauge	628.84	-	-	-	0.55		626.06	-	-	628.23	625.91
SG-R3 [1]	Rockaway River Staff Gauge	627.38	-	-	-	0.78		624.83	-	-	625.63	624.05
WP-A1	Area A Well Point	636.29	636.32	635.81	8.81	10.38	627.00	625.43	1.57	626.90	628.55	623.66
WP-A2	Area A Well Point	637.31	639.62	639.19	12.45	12.95	626.74	626.24	0.50	626.71	628.78	624.03
WP-A3	Area A Well Point	635.97	635.97	635.56		8.44	-	627.12	-	-	629.59	623.01
WP-A4	Area A Well Point	635.63	635.66	635.10	8.52	11.09	626.58	624.01	2.57	626.42	628.31	621.84
WP-A5	Area A Well Point	635.70		637.85	-	10.80		627.05	-	-	629.14	622.88
WP-A6	Area A Well Point	634.95		637.28	10.48	13.57	626.80	623.71	3.09	626.60	636.65	622.88
WP-A7	Area A Well Point	632.94		634.88	8.30	9.66	626.58	625.22	1.36	626.49	628.47	622.79
WP-A8	Area A Well Point	634.70		637.56	10.91	12.15	626.65	625.41	1.24	626.57	628.24	622.73
WP-A9	Area A Well Point	637.22		639.32	12.40	14.29	626.92	625.03	1.89	626.80	629.06	622.85
WP-B1	Area B Well Point	631.85		633.65	-	6.19	-	627.46	-	-	629.70	623.37
WP-B2	Area B Well Point	630.48	632.58	632.25	-	5.61		626.64	-	-	627.97	622.72
WP-B3	Area B Well Point	631.71		633.33	-	6.49		626.84	-	-	628.92	622.80
WP-B4	Area B Well Point	629.93		632.56	6.51	6.54	626.05	626.02	0.03	626.05	627.62	622.78
WP-B5	Area B Well Point	630.03		632.11	-	4.78	-	627.33	-	-	627.77	623.83
WP-B6	Area B Well Point	629.72		631.86	-	5.77	-	626.09	-	-	627.56	622.86
WP-B7	Area B Well Point	627.62		629.49	-	3.79	-	625.70	-	-	626.82	622.81
WP-B10	Area B Well Point	630.42	633.12	632.74	-	6.21	-	626.53	-	-	627.70	622.66
WP-C1	Area C Well Point	632.81		633.51	-	6.71	-	626.80	-	-	628.18	622.64
WP-C2	Area C Well Point	633.02		634.46	-	7.74	-	626.72	-	-	630.02	622.94
WP-C3	Area C Well Point	631.00		632.64	-	5.94	-	626.70	-	-	628.18	622.60
WP-C4	Area C Well Point	632.44		633.27	-	5.76	-	627.51	-	-	633.27	623.70

FOOTNOTES

(1) Elevation measured at the top of a 3.33 ft. Staff gauge. Reference elevation (ground) shot at the top of the staff gauge. Water depth based on a visual observation of the water level on the Staff gauge.

(2) Corrected water level elevations utilize an average specific gravity of 0.9363 (RMT, Inc. product sampling in October 1999 @ MW-1(R); EFR-11 & WP-A8)

(3) Wells included in the quarterly sampling program. Depth to water recorded before purging

(4) Wells installed during new RI efforts per NJDEP and EPA request to further delineate MW19/Hot Spot 1 Area

(5) No boring log or well construction diagram available. Well specific information determined from Weston Geologic Cross Section

(6) "-" in the Quarterly Measurement Information section of this database indicates that the presence of free product was NOT detected at any measurable thickness and therefore did not generate a product elevation, product thickness nor require water level elevation to be corrected

(7) "-" in the Well Installation and Construction Information section indicates that well construction logs were not available for review

(8) Horizontal Datum: New Jersey State Plane Coordinate System NAD 83. Vertical Datum: NGVD 29

(9) All "19 series" wells were resurveyed August 8, 2001 at owners request. Wells MW19 through MW19-5 were converted to flush mount wells to allow for through traffic. Professional survey performed by James M. Stewart, Inc., Philadelphia, PA

TABLE 7
L.E. CARPENTER - Wharton, New Jersey
MW19/Hot Spot 1 Groundwater Monitoring Data

MONITORING WELLS	SAMPLE DATE	QUARTER	Benzene		Ethylbenzene		Toluene		Total Xylenes		bis-2-Ethylhexylphthalate (DEHP)	
			ANALYTICAL PARAMETERS									
		UNITS	ug/l		ug/l		ug/l		ug/l		ug/l	
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1		700		1,000		40		30	
MW19												
Dilution factor for BTEX 2000	24-Feb-95	1	<	660		1,700		110,000		10,000		NR
Dilution factor for BTEX 100	14-Jun-95	2		150		3,400		140,000		17,000		NS
Dilution factor 5000 for BTEX & 2 for DEHP; MDL for Benzene 1000 ug/l	24-Apr-98	2	<	1,000		2,850		76,700		14,900		6.6
Dilution factor for BTEX 500	2-Aug-01	3	<	85		3,000		62,000		17,000		2.9
Dilution factor for BTEX 1000	6-Jun-02	2	<	200		1,000		30,000		6,000		5.6
Dilution factor for BEX 100, Toluene 200	20-Nov-03	4	<	20		1,500		40,000		7,400	J	6.0
MW19-1												
Dilution factor for BTEX 200	12-Mar-98	1	<	40		219		4,270		1,160		190
	2-Aug-01	3	<	0.2		1.2	<	0.2	<	0.2		85
	5-Jun-02	2	<	0.22	<	0.18	<	0.24	<	0.2		0.6
	19-Nov-03	4	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
MW19-2												
Dilution factor for BTEX 250	12-Mar-98	1	<	50		1,130		9,830		6,010		8.8
Dilution factor for BTEX 2	1-Aug-01	3	<	0.4		21		160		82		16
	5-Jun-02	2	<	0.22		19		36		39	<	0.4
	19-Nov-03	4	<	0.2	<	0.2	<	0.2	<	0.6	J	1.0
MW19-3												
	12-Mar-98	1	<	0.2	<	0.14	<	0.14	<	0.5	<	1.2
	2-Aug-01	3	<	0.2	<	0.2	<	0.2	<	0.2	<	0.5
	5-Jun-02	2	<	0.22	<	0.18	<	0.24	<	0.2	<	0.5
	19-Nov-03	4	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
MW19-4												
	12-Mar-98	1	<	0.2	<	0.14	<	0.14	<	0.5	<	1.3
	2-Aug-01	3	<	0.2	<	0.2	<	0.2	<	0.2	<	0.5
	6-Jun-02	2	<	0.22	<	0.18	<	0.24	<	0.2	<	0.5
	19-Nov-03	4	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
MW19-5												
Dilution factor for BTEX 5000	12-Mar-98	1	<	1,000		1,920		123,000		10,100		42
Dilution factor for BTEX 1000	2-Aug-01	3	<	190		870		79,000		5,200		3.2
Dilution factor for BTEX 500	7-Mar-02	1	<	140		300		10,000		1,700		1.3
Dilution factor for BTEX 5000, for DEHP 20	5-Jun-02	2	<	1,100		1,100		92,000		6,300	<	9.8
Dilution factor for BTEX 5000, for DEHP 20	5-Jun-02	2 duplicate	<	1,100		1,300		82,000		6,900	<	9.4
	19-Nov-03	4	<	0.2	<	0.2		4.3	J	0.9	<	0.9
	18-Dec-03	4 resample	<	0.2		3.7		240.0		24.0	<	0.9
MW19-6												
Dilution factor for BTEX 200	15-Nov-99	4	<	62		94		3,400		500		32
Dilution factor for BTEX 2	1-Aug-01	3	<	0.4		14		390		47		28
	5-Jun-02	2	<	0.22		1.7		13		4.1		2.3
	18-Nov-03	4	<	0.2	<	0.2	J	0.3	<	0.6	J	6
MW19-7												
Dilution factor for BTEX 50	15-Nov-99	4	<	16		100		51		1,400	<	4.1
Dilution factor for BTEX 2	1-Aug-01	3		6.7		6.6		13		680	<	0.4
Dilution factor for BTEX 5	7-Mar-02	1		3	<	1.3	<	1.3		250		1.6
	5-Jun-02	2		0.48		1.6		27		27	<	0.4
	19-Nov-03	4		4.7	J	0.4	J	0.3		460	J	1.0

TABLE 7
L.E. CARPENTER - Wharton, New Jersey
MW19/Hot Spot 1 Groundwater Monitoring Data

MONITORING WELLS	ANALYTICAL PARAMETERS											
	SAMPLE DATE	QUARTER	Benzene		Ethylbenzene		Toluene		Total Xylenes		bis-2-Ethylhexylphthalate (DEHP)	
		UNITS	ug/l		ug/l		ug/l		ug/l		ug/l	
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1		700		1,000		40		30	
MW19-8												
Dilution factor for BTEX 50	15-Nov-99	4	<	0.31	<	0.38	<	0.34	<	0.4	<	4.1
Dilution factor for BTEX 2	1-Aug-01	3		0.5	<	0.2	<	0.2	<	0.2	<	0.4
	5-Jun-02	2	<	0.22	<	0.18	<	0.24	<	0.2	<	0.4
	19-Nov-03	4	<	0.20	<	0.20	<	0.20	<	0.6	<	0.9
MW19-9D												
Dilution factor for BTEX 2	1-Aug-01	3	<	0.2	<	0.2	<	0.2	<	0.2		0.5
	5-Jun-02	2	<	0.22	<	0.18	<	0.24	<	0.2		1.9
	19-Nov-03	4	<	0.20	<	0.20	<	0.20	<	0.6	J	1.0
GEI-2I	24-Feb-95	1	<	0.3	<	0.3		0.4	<	0.1		27
	6-Jun-02	2	<	0.22	<	0.18	<	0.24	<	0.2		1.4
GEI-2S	24-Feb-95	1	<	8.2		46		1,500		380		7.6
	25-Mar-98	1		NS		NS		NS		NS	B	2.5
	6-Jun-02	2		1.2		2.6		16		5.1		2.4
	18-Dec-03	4	<	0.2	<	0.2	J	0.4	<	0.6	<	1.0

LEGEND

ug/L = micrograms per liter

NJGWQS = New Jersey Groundwater Quality Standards

ROD: Record of Decision

NA = Not Applicable

S = Not Sampled

ND: No Detection

NR = Not Run

duplicate = Duplicate sample

680 : Concentration exceeds NJGWQS

B: Analyte also detected in blank

J: Estimated value. Value falls within the Method Detection Limit (MDL) and Limit of Quantitation (LOQ)

NOTES

(1) Low flow sampling initiated 1st quarter 2002

(2) GEI series wells are piezometers installed by Weston

T[illegible]LE 8
L.E. Carpenter, Wharton, New Jersey
MW19/Hot Spot 1 Groundwater Elevations

WELL LOCATION	WELL TYPE	ELEVATIONS (FT. MSL)			GROUNDWATER MEASUREMENT INFORMATION(2)						
		GROUND	OUTER CASING	INNER WELL	MEAS. DATE	PRODUCT DEPTH	WATER DEPTH	PRODUCT ELEVATION	WATER ELEVATION	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL ELEVATIONS
GEI-2I	Piezometer	635.92	638.35	638.20	17-Nov-03	-	10.05	-	628.15	-	-
GEI-2S	Piezometer	635.46	637.87	637.67	17-Nov-03	-	10.01	-	627.66	-	-
MW-16S	Monitoring Well	632.57	634.69	634.47	17-Nov-03	-	7.16	-	627.31	-	-
MW-16I	Monitoring Well	632.43	635.08	634.96	17-Nov-03	-	7.49	-	627.47	-	-
MW-19(4)	Monitoring Well	636.82	636.83	636.50	17-Nov-03	-	8.63	-	627.87	-	-
MW-19-1(4)	Monitoring Well	636.53	636.56	636.24	17-Nov-03	-	8.40	-	627.84	-	-
MW-19-2(4)	Monitoring Well	637.06	637.10	636.90	17-Nov-03	-	9.09	-	627.81	-	-
MW-19-3(4)	Monitoring Well	637.57	637.66	637.30	17-Nov-03	-	9.43	-	627.87	-	-
MW-19-4(4)	Monitoring Well	636.29	636.36	636.03	17-Nov-03	-	8.11	-	627.92	-	-
MW-19-5(4)	Monitoring Well	636.53	636.53	636.16	17-Nov-03	-	8.36	-	627.80	-	-
MW-19-6(4)	Monitoring Well	636.77	636.76	636.42	17-Nov-03	-	8.62	-	627.80	-	-
MW-19-7(4)	Monitoring Well	635.91	635.96	635.60	17-Nov-03	-	7.89	-	627.71	-	-
MW-19-8(4)	Monitoring Well	636.42	636.42	635.96	17-Nov-03	-	8.35	-	627.61	-	-
MW19-9D (3)(4)	Monitoring Well	636.99	637.01	636.70	17-Nov-03	-	8.28	-	628.42	-	-
MW-20	Monitoring Well	634.82	637.03	636.77	17-Nov-03	-	8.34	-	628.43	-	-
SG-R1	Rockaway River Staff Gauge	641.52	-	-	17-Nov-03	-	1.56	-	639.75	-	-

FOOTNOTES:
(1) Horizontal Datum: New Jersey State Plane Coordinate System NAD 83. Vertical Datum: NGVD 29
(2) All elevation measurements were taken on June 5, 2002 per the NJDEP letter dated May 31, 2002
(3) MW19-9D not included in Potentiometric surface evaluation as the well was screened in a deeper interval within the shallow system
(4) All "19 series" wells were resurveyed August 8, 2001 at owners request. Wells MW19 through MW19-5 were converted to flush mount wells to allow for through traffic. Professional survey performed by James M. Stewart, Inc., Philadelphia, PA

TABLE 9
L.E. CARPENTER - Wharton, New Jersey
Surface Water Monitoring Data

	ROCKAWAY RIVER			INFILTRATION GALLERY										DRAINAGE DITCH					
	SW-1	SW-2	SW-3	SW-4	SW-5								SW-6	SW-7					
SAMPLING DATE	03/14/89 (1)	03/14/89 (1)	03/14/89 (1)	03/14/89 (1)(6)	08/02/89 (1)	5/29/98 (5)	06/06/02	11/21/02	03/20/03	06/02/03	08/20/03	11/18/03	03/14/89 (1)	08/27/90	5/29/98 (5)	06/06/02	11/21/02	03/20/03	06/02/03
VOLATILE ORGANIC COMPOUNDS (ug/l) (4)																			
Methylene Chloride	J 1	ND	ND	ND	JP 3.8	ND	NA	NA	NA	NA	NA	NA	J 3.8	(2) ND	ND	NA	NA	NA	NA
1,1,1-Trichloroethane	ND	ND	ND	ND	J 3.7	0.4	NA	NA	NA	NA	NA	NA	ND	ND	0.5	NA	NA	NA	NA
Ethylbenzene	ND	ND	ND	ND	J 3.5	ND	NA	< 0.18	< 0.2	< 0.2	< 0.2	< 0.2	ND	ND	ND	ND	< 0.18	< 0.2	< 0.2
Chlorobenzene	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	J 1.2	ND	ND	NA	NA	NA	NA
Acetone	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA
Total Xylenes	ND	ND	ND	ND	44	ND	ND	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	ND	ND	ND	ND	< 0.2	< 0.6	< 0.6
Toluene	ND	ND	ND	ND	ND	ND	1	< 0.24	< 0.2	< 0.2	J 0.4	< 0.2	ND	ND	ND	ND	< 0.24	< 0.2	< 0.2
1,1,2-Trichloro-2,2,1-Triflouroethane	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA
Benzene							ND	< 0.22	< 0.2	< 0.2	< 0.2	< 0.2				ND	< 0.22	< 0.2	< 0.2
BASE NEUTRAL COMPOUNDS (ug/l) (4)																			
Di-n-butyl phthalate (3)	JP 3.2	JP 3.7	JP 3.6	JP 3.5	ND	ND	NA	NA	NA	NA	NA	NA	JP 4	NA	ND	NA	NA	NA	NA
bis(2-Ethylhexyl) phthalate	ND	ND	ND	J 7.2	ND	ND	ND	B 0.3	< 1	< 1	J 3	< 1	ND	J(2) 7	ND	ND	B 0.4	< 1	< 1
METALS (ug/l) (4)																			
Antimony	ND	ND	ND	J 22.8	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Arsenic	ND	ND	J 2.4	ND	10	NA	NA	NA	NA	NA	NA	NA	15.9	NA	NA	NA	NA	NA	NA
Cadmium	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	J 22.2	NA	NA	NA	NA	NA	NA
Chromium	ND	ND	J 8	ND	ND	NA	NA	NA	NA	NA	NA	NA	231	NA	NA	NA	NA	NA	NA
Copper	J 16.7	J 5.3	J 22.1	J 6.7	ND	NA	NA	NA	NA	NA	NA	NA	405	NA	NA	NA	NA	NA	NA
Lead	20.7	ND	87.2	J 2.7	6	NA	NA	NA	NA	NA	NA	NA	1340	NA	NA	NA	NA	NA	NA
Mercury	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	2.8	NA	NA	NA	NA	NA	NA
Nickel	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	J 60.8	NA	NA	NA	NA	NA	NA
Selenium	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	7.1	NA	NA	NA	NA	NA	NA
Zinc	96.4	J 4.2	152	23	60	NA	NA	NA	NA	NA	NA	NA	2370	NA	NA	NA	NA	NA	NA
POLYCHLORINATED BIPHENYLS (PCBs) (ug/l) (6)																			
Arochlor-1016	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1221	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1232	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1242	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1248	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1254	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1260	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LEGEND

ug/L = micrograms per liter
SW = Surface water sample (Roy F. Weston nomenclature)
ND: No Detection
NA: Not Analysed
Concentration data in BOLD above detection level
B: Compound detected in lab blank.

LABORATORY QUALIFIERS

J: Detected below reporting limit or is an estimated concentration
P: Compound detected in laboratory method blank
B: Analyte found in laboratory blank as well as sample

NOTES

(1) NJDEP Tier 1 sample holding time was exceeded
(2) Compound detected in method blank. Sample concentration < 3x conc. in method blank
Per Tier 1 guidelines the result is negated
(3) All concentrations later negated by NJDEP
(4) Only those parameters listed showed concentrations above ND.
All other parameters were either ND or NA.
(5) Sampling performed by RMT per NJDEP request letter dated Jan 28, 1998
VOCs and Base Neutrals ONLY (EPA 624 and 625 respectively)
(6) The PCB sample (SW-4) was collected May 9, 1989

Sediment Sampling Information

1989 GeoEngineering/Roy F. Weston sampling November 1989: VO+15 (EPA 624), BN+15 (EPA 625); PP Metals (EPA 200 series), PCBs (SW-4 only) (EPA 608)
PP Metals (EPA 200 series), PCBs (SW/SS-4 only) (for SW sample EPA 608, for SS EPA 8080)
SW-1: Background sample location in Washington Forge Pond
SW-2: Assess impact on Rockaway River. Located immediately adjacent to Bldg. 12
SW-3: Assess impact on Rockaway River. Located dowNAtream of former impoundment area
SW-4: Located in former infiltration gallery between former impoundment area and tank farm
SW-5: Located in the drainage ditch between LEC and Air Products
SW-6: Located in a drainage feature in NE corner, up by former Starch drying beds. Potential floor drain and non-contact cooling water impacts

1990 Roy F. Weston Supplemental RI (November 1990)
SW-7: Former outfall from northeast corner starch drying beds. (VOC+10, BN+10, PCB)
SW-8: Bend in drainage ditch. Assess downgradient quality of drainAge ditch (VOC+10)
SW-9: Junction of ditch and Rockaway River. Assess impact of ditch on river quality. (VOC+10, BN+10, PCB)
SW-10: Rockaway River south of MW-4. Assess impact of site on contaminants of Rockaway River. (VOC+10, TAL Metals)

2002 Sampling performed by RMT pre the NJDEP letter dated May 31, 2002 [NJDEP/EPA review of Quarterly Monitoring Report - 1st Quarter 2002
During 3Q02 sampling event only SW-8 location sampled due drought conditions.

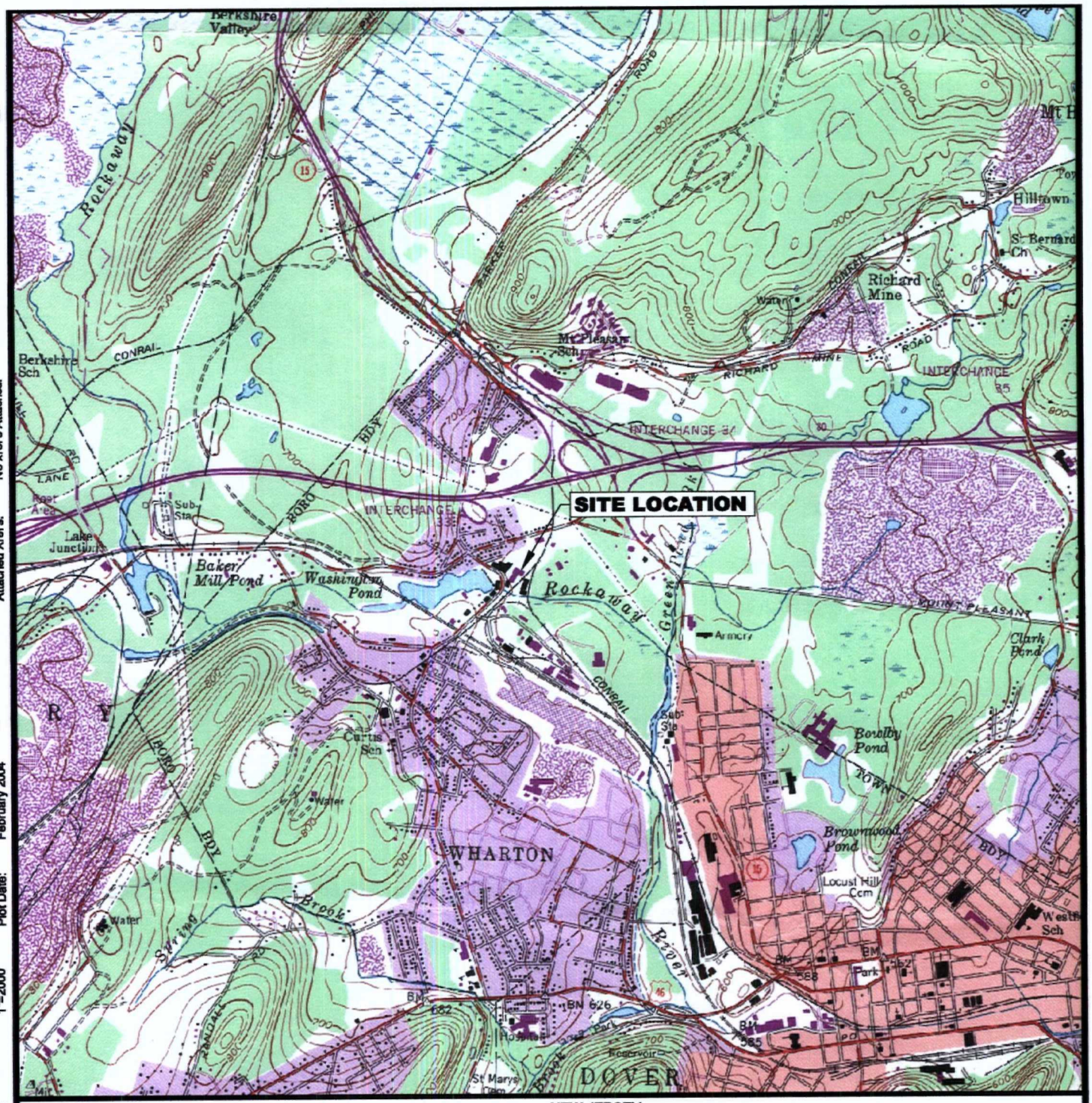
TABLE 9
L.E. CARPENTER - Wharton, New Jersey
Surface Water Monitoring Data

												ROCKAWAY RIVER	
			SW-8									SW-9	SW-10
SAMPLING DATE	08/20/03	11/18/03	08/27/90	5/29/98 (5)	06/06/02	08/14/02	11/21/02	03/20/03	06/02/03	08/20/03	11/18/03	08/28/90	08/28/90
VOLATILE ORGANIC COMPOUNDS (ug/l) (4)													
Methylene Chloride	NA	NA	(2) ND	ND	NA	NA	NA	NA	NA	NA	NA	(2) ND	(2) ND
1,1,1-Trichloroethane	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND
Ethylbenzene	< 0.2	< 0.2	ND	ND	ND	< 0.18	< 0.18	J 0.91	J 0.2	< 0.2	< 0.2	ND	ND
Chlorobenzene	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND
Acetone	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND
Total Xylenes	< 0.6	< 0.6	ND	ND	ND	0.43	0.32	J 2.7	J 1.2	< 0.6	J 1.2	ND	ND
Toluene	< 0.2	< 0.2	ND	ND	1	0.54	< 0.24	< 0.2	< 0.2	< 0.2	< 0.2	ND	ND
1,1,2-Trichloro-2,2,1-Triflouroethane	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND
Benzene	< 0.2	< 0.2			ND	< 0.22	< 0.22	< 0.2	< 0.2	< 0.2	< 0.2		
BASE NEUTRAL COMPOUNDS (ug/l) (4)													
Di-n-butyl phthalate (3)	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl) phthalate	J 1	J 3	NA	ND	0.6	1.3	B 0.4	< 1	< 1	J 4	< 1	J(2) 6	NA
METALS (ug/l) (4)													
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	J 3.9
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	J 4.6
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	J 5.4
POLYCHLORINATED BIPHENYLS (PCBs) (ug/l) (6)													
Arochlor-1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LEGEND
ug/L = micrograms per liter
SW = Surface water sample (Roy F. Weston nomenclature)
ND: No Detection
NA: Not Analysed
Concentration data in **BOLD** above detection level
B: Compound detected in lab blank.

LABORATORY QUALIFIERS
J: Detected below reporting limit or is an estimated concentration
P: Compound detected in laboratory method blank
B: Analyte found in laboratory blank as well as sample

Figures



NEW JERSEY

QUADRANGLE LOCATION

N

0 2000' 4000'

APPROXIMATE SCALE IN FEET

SOURCE

BASE MAP DEVELOPED FROM THE DOVER, NEW JERSEY 7.5 MINUTE U.S.G.S. TOPOGRAPHIC QUADRANGLE MAP, DATED 1954, PHOTOREVISED 1981.

RMT INC.

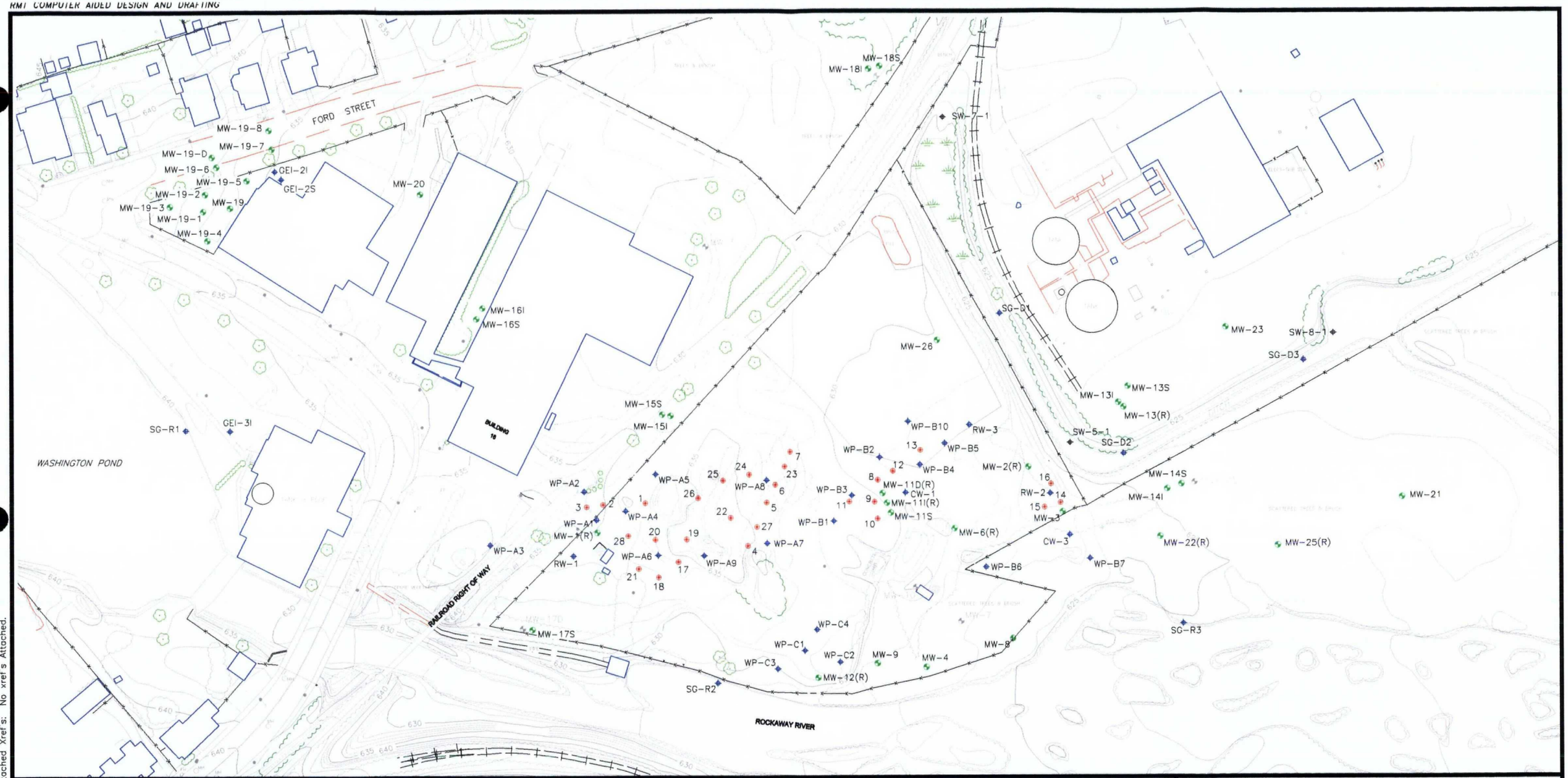
LE CARPENTER
WHARTON, NEW JERSEY

SITE LOCATION MAP
FOR 4th QUARTER 2003

DRAWN BY:	SJL
APPROVED BY:	NC
PROJECT NUMBER:	3868.35
FILE NUMBER:	38683591.DWG
DATE:	FEBRUARY 2004

FIGURE 1

PLOT DATA
Drawing Name: J:\03868\35\38683591.dwg
Operator Name: lucidos
Scale: 1"=2000'
Dwg Size: 85681 Bytes
Plot Date: February 2004
Plot Time: 3:14.0511 PM
Attached Xrefs: No xref's Attached.



LEGEND

	PROPERTY LINE	WP-B7	WELL POINTS
	FENCE	SG-R1	RIVER POINT
MW-21	MONITORING WELL	SG-D1	DRAINAGE CHANNEL POINT
	ABANDONED WELL	GEI-2I	PIEZOMETERS
13	ENHANCED FLUID RECOVERY WELL	SW-7-1	SURFACE WATER SAMPLE
RW-2	RECOVERY WELL		TREATMENT BUILDING
CW-3	CAISSON WELLS		

N

0 100' 200'

SCALE IN FEET

LE. CARPENTER
WHARTON, NEW JERSEY

SITE PLAN WITH WELL LOCATIONS
4th QUARTER 2003

DRAWN BY:	SJL	PROJECT NUMBER:	3868.35
CHECKED BY:	ES	FILE NUMBER:	38683592.DWG
APPROVED BY:	NC	DATE:	FEBRUARY 2004

RMT INC.
1143 HIGHLAND DRIVE, SUITE B
ANN ARBOR, MI. 48108-2237
PHONE: 734-971-7080
FAX: 734-971-9022

FIGURE 2

PLOT DATA
Drawing Name: 03868\35\38683592.dwg
Operator Name: dos
Scale: 1"
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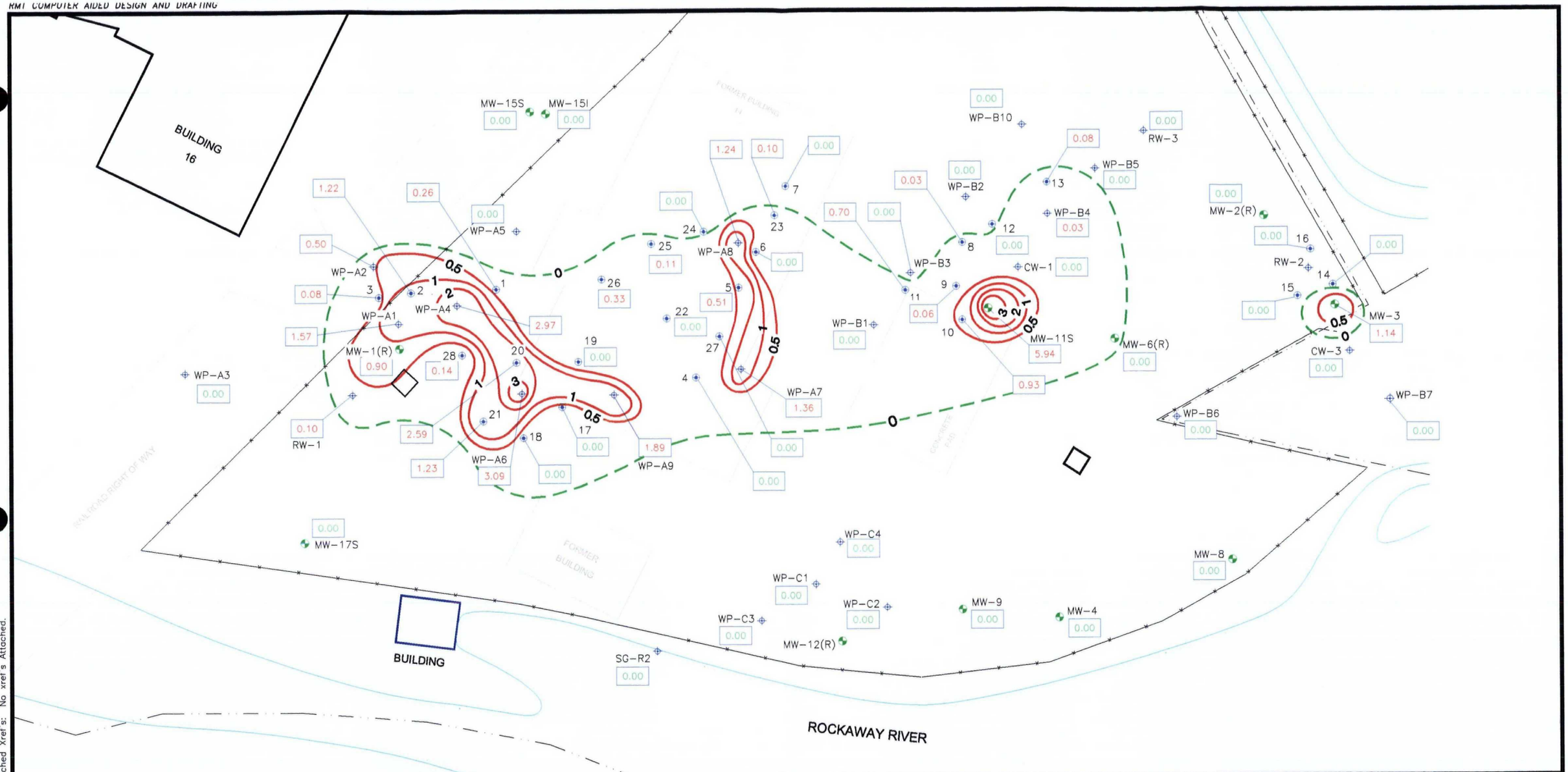
Plot Date: February 2004
Plot Time: 3:13:43:46 PM
Attached Xref's: No xref's Attached.
Layout Name: Site Plan (4th Quarter 2003)



LEGEND

- SURFACE WATER FEATURE
- PROPERTY LINE
- FENCE
- 1 APPARENT PRODUCT THICKNESS CONTOURS (FT)
- 0 APPROXIMATE OUTER LIMIT OF FREE PRODUCT
- 0.00 NO MEASURABLE PRODUCT
- 1.22 PRODUCT THICKNESS MEASURED IN WELL (FT) (Measurements collected at monitoring wells and well points on November 17, 2003 by RMT, Inc.) (Measurements collected at EFR wells on November 7, 2003 by CEMCO)
- MW-13S MONITORING WELL
- MW-14 ABANDONED WELL
- RW-2 RECOVERY WELL
- CW-3 CAISSON WELLS
- WP-B7 WELL POINTS WITH ELEVATION
- TREATMENT BUILDING
- 13 ENHANCED FLUID RECOVERY WELL (EFR)

N

0 50' 100'

SCALE IN FEET

L.E. CARPENTER
WHARTON, NEW JERSEY

FREE PRODUCT THICKNESS MAP
4th QUARTER 2003

DRAWN BY:	SJL	PROJECT NUMBER:	6527.02
CHECKED BY:	JO	FILE NUMBER:	65270213.DWG
APPROVED BY:	NC	DATE:	FEBRUARY 2004

RMT INC.
1143 HIGHLAND DRIVE, SUITE B
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PHONE: 734-971-7080
FAX: 734-971-9022

FIGURE 3

PLOT DATA
Drawing Name: 06527\02\65270213.dwg
Operator Name: Atlas
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Dwg Size: 141309 Bytes
Plot Date: February 2004
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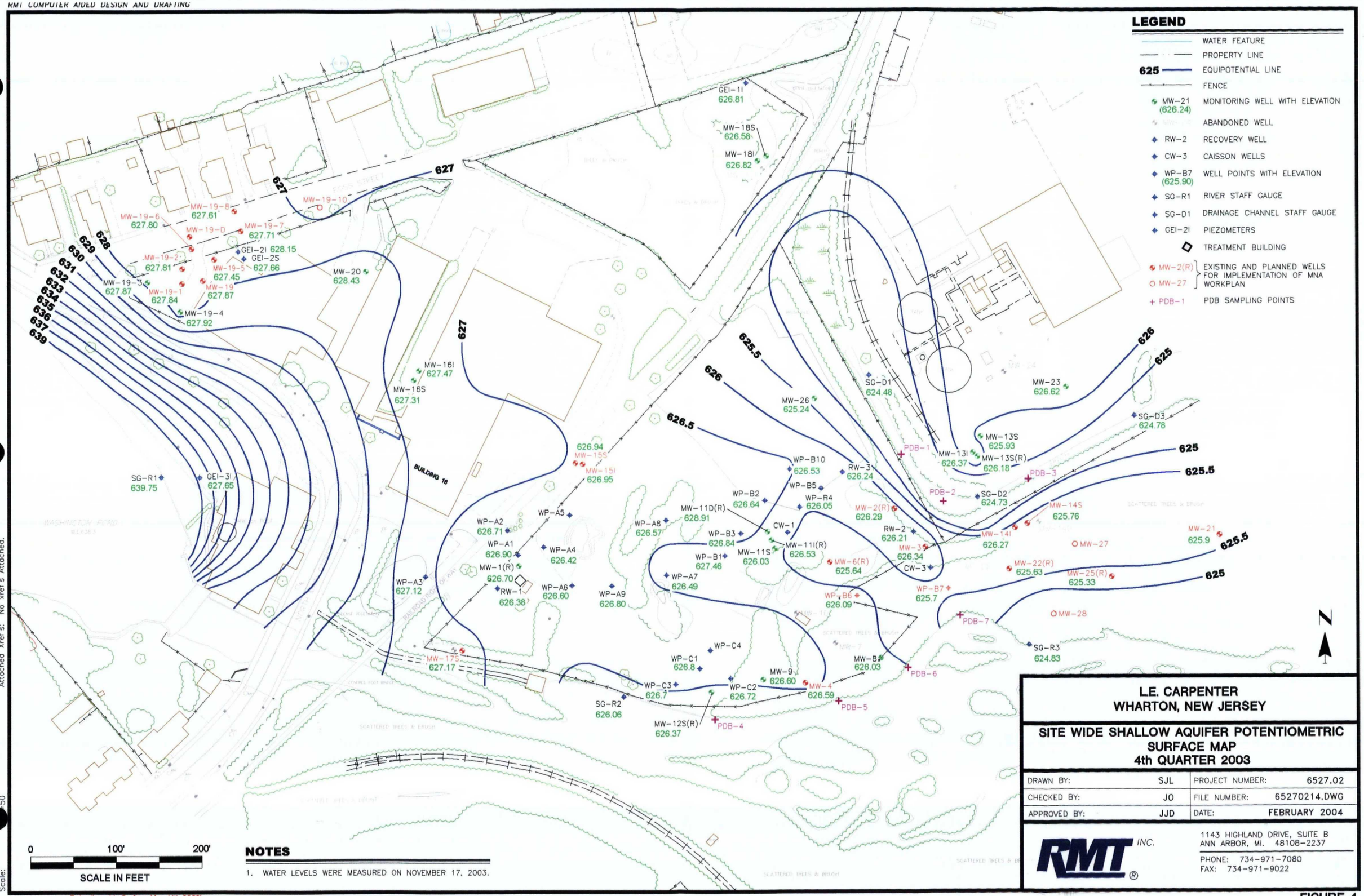

NOTES

1. WATER LEVELS WERE MEASURED ON NOVEMBER 17, 2003.

L.E. CARPENTER
WHARTON, NEW JERSEY

SITE WIDE SHALLOW AQUIFER POTENTIOMETRIC SURFACE MAP
4th QUARTER 2003

DRAWN BY:	SJL	PROJECT NUMBER:	6527.02
CHECKED BY:	JO	FILE NUMBER:	65270214.DWG
APPROVED BY:	JJD	DATE:	FEBRUARY 2004

RMT INC.
1143 HIGHLAND DRIVE, SUITE B
ANN ARBOR, MI. 48108-2237
PHONE: 734-971-7080
FAX: 734-971-9022

FIGURE 4

PLOT DATA
Drawing Name: \06527\02\65270214.dwg
Operator Name: dos
Scale: 1"=50'
Dwg Size: 1906370 Bytes
Plot Date: February 2004
Plot Time: 3:33:1447 PM
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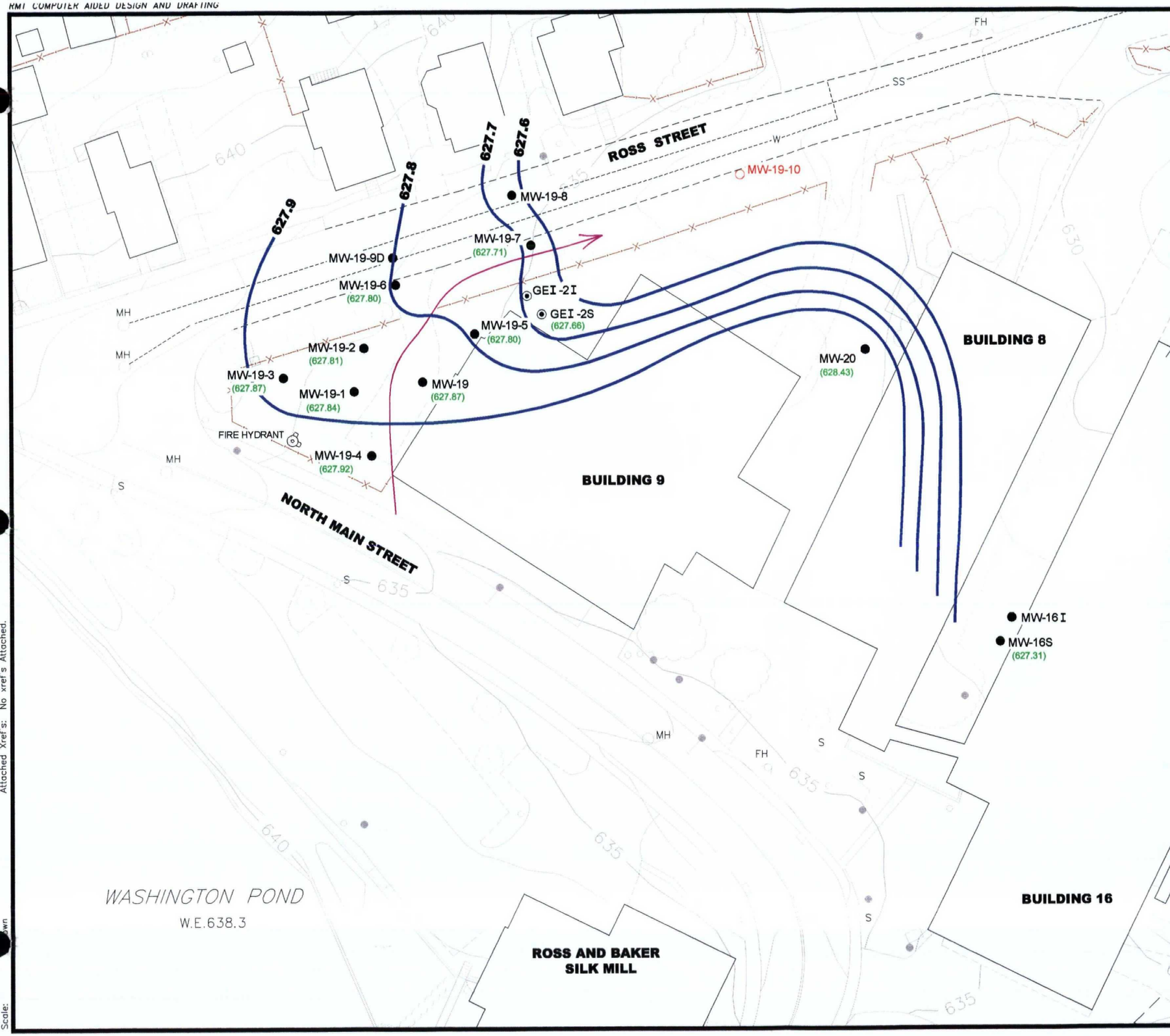
Layout Name: Potentiometric Surface Map (4th 2003)



LEGEND

- FENCE LINE
- SS — APPROXIMATE LOCATION OF ROCKAWAY RIVER REGIONAL INTERCEPTOR SEWER
- 627 — GROUNDWATER ELEVATION CONTOUR
- MW-19-6 (627.80) — MONITORING WELL LOCATION AND NUMBER WITH CONCENTRATION OF TOTAL BTEXT (mg/L)
- GEI-2S (627.66) — GEOPROBE INSTALLED PIEZOMETER LOCATION AND NUMBER WITH CONCENTRATION OF TOTAL BTEX (mg/L)
- MW-19-10 — WELL TO BE INSTALLED AS PART OF MNA WORKPLAN IMPLEMENTATION
- SS — SANITARY SEWER
- G&W — GAS AND WATER
- E — ELECTRIC
- W — WATER
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES

1. GROUNDWATER ELEVATIONS BASED ON LEVELS MEASURED ON NOVEMBER 17, 2003.

2. TOTAL BTEX CONCENTRATIONS FOR MW-19-5 AND GEI-2S ARE BASED ON THE RESAMPLED DATA TAKEN DECEMBER 18, 2003.

N

0 40' 80'

SCALE IN FEET

LE. CARPENTER
WHARTON, NEW JERSEY

MW-19 / HOT SPOT 1 SHALLOW AQUIFER POTENTIOMENTRIC SURFACE MAP
4th QUARTER 2003

DRAWN BY:	SJL	PROJECT NUMBER:	6527.02
CHECKED BY:	JDD	FILE NUMBER:	65270215.DWG
APPROVED BY:	JDD	DATE:	FEBRUARY 2004

RMT INC.
1143 HIGHLAND DRIVE, SUITE B
ANN ARBOR, MI. 48108-2237
PHONE: 734-971-7080
FAX: 734-971-9022

FIGURE 5

PLOT DATA
Drawing Name: 06527\02\65270215.dwg
Operator Name: dos
Scale: Dwn
Dwg Size: 962096 Bytes
Plot Date: February 2004
Plot Time: 3:35.0536 PM
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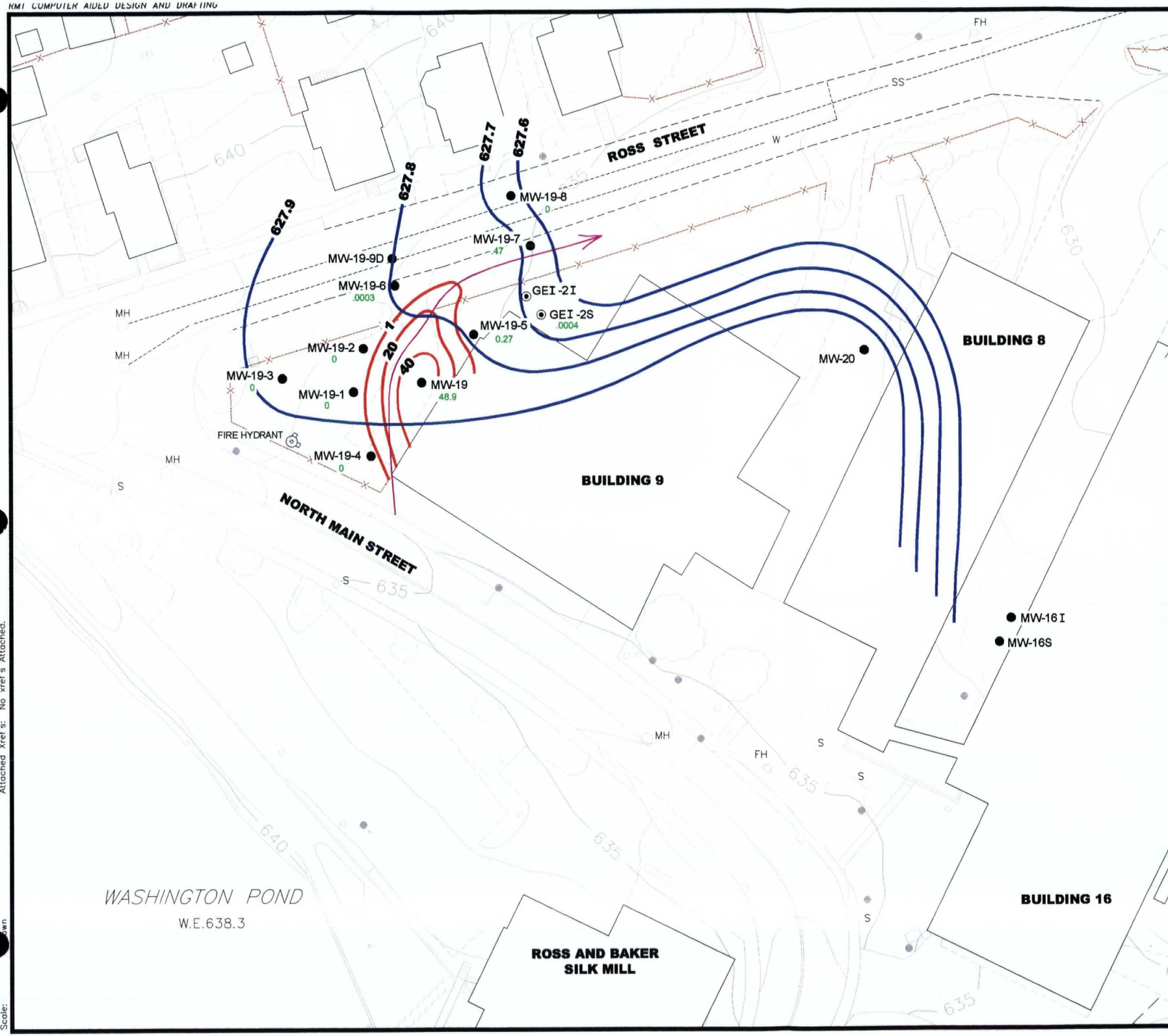
RMT COMPUTER AIDED DESIGN AND DRAFTING



LEGEND

- FENCE LINE
- SS — APPROXIMATE LOCATION OF ROCKAWAY RIVER REGIONAL INTERCEPTOR SEWER
- 627 — GROUNDWATER ELEVATION CONTOUR
- MW-19-6 .0003 — MONITORING WELL LOCATION AND NUMBER WITH CONCENTRATION OF TOTAL BTEXT (mg/L)
- GEI-2S .0004 — GEOPROBE INSTALLED PIEZOMETER LOCATION AND NUMBER WITH CONCENTRATION OF TOTAL BTEX (mg/L)
- SS — SANITARY SEWER
- G&W — GAS AND WATER
- E — ELECTRIC
- W — WATER
- 40 — ISOCONCENTRATION CONTOUR FOR TOTAL BTEX (ppm). SAMPLES COLLECTED NOVEMBER 18, 19, and 20, 2003.
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES

1. GROUNDWATER ELEVATIONS BASED ON LEVELS MEASURED ON NOVEMBER 17, 2003.

2. TOTAL BTEX CONCENTRATIONS FOR MW-19-S AND GEI-2S ARE BASED ON THE RESAMPLED DATA TAKEN DECEMBER 18, 2003.

N

0 40' 80'

SCALE IN FEET

L.E. CARPENTER
WHARTON, NEW JERSEY

MW-19 / HOT SPOT 1 ISOCONCENTRATION MAP
4th QUARTER 2003

DRAWN BY:	SJL	PROJECT NUMBER:	6527.02
CHECKED BY:	JDD	FILE NUMBER:	65270216.DWG
APPROVED BY:	JDD	DATE:	FEBRUARY 2004

RMT INC.

1143 HIGHLAND DRIVE, SUITE B
ANN ARBOR, MI. 48108-2237

PHONE: 734-971-7080
FAX: 734-971-9022

FIGURE 6

PLOT DATA
Drawing Name: 06527\02\65270216.dwg
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Scale: own
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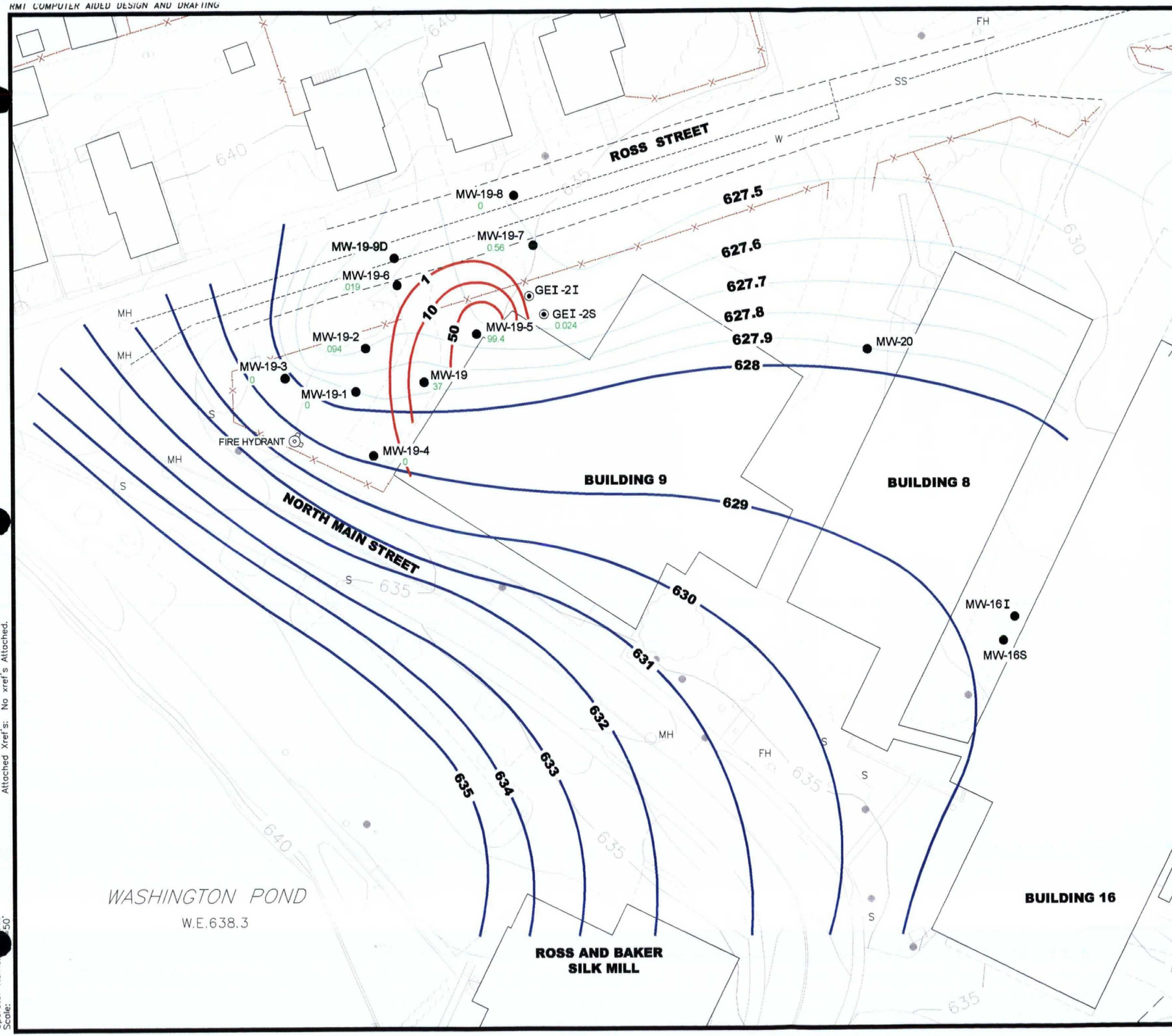

LEGEND

- FENCE LINE
- SS — APPROXIMATE LOCATION OF ROCKAWAY RIVER REGIONAL INTERCEPTOR SEWER
- 626 — GROUNDWATER ELEVATION CONTOUR
- MW-19-7 — MONITORING WELL LOCATION AND NUMBER
- GEI-2S — GEOPROBE INSTALLED PIEZOMETER LOCATION
- SS — SANITARY SEWER
- G&W — GAS AND WATER
- E — ELECTRIC
- W — WATER
- 50 — ISOCONCENTRATION CONTOUR FOR TOTAL BTEX (ppm)

NOTES

1. GROUNDWATER ELEVATIONS BASED ON LEVELS MEASURED ON MAY 21, 2002.

N

0 40' 80'

SCALE IN FEET

L.E. CARPENTER
WHARTON, NEW JERSEY

MW-19 / HOT SPOT 1 ISOCONCENTRATION MAP
2nd QUARTER 2002

DRAWN BY:	SJL	PROJECT NUMBER:	3868.25
CHECKED BY:	JDD	FILE NUMBER:	38682537.DWG
APPROVED BY:	JDD	DATE:	JULY 2002

RMT INC.
1143 HIGHLAND DRIVE, SUITE B
ANN ARBOR, MI. 48108-2237
PHONE: 734-971-7080
FAX: 734-971-9022

FIGURE 7

PLOT DATA
Drawing Name: 06527\02\65270217.dwg
Operator Name: dos
Scale: 50'
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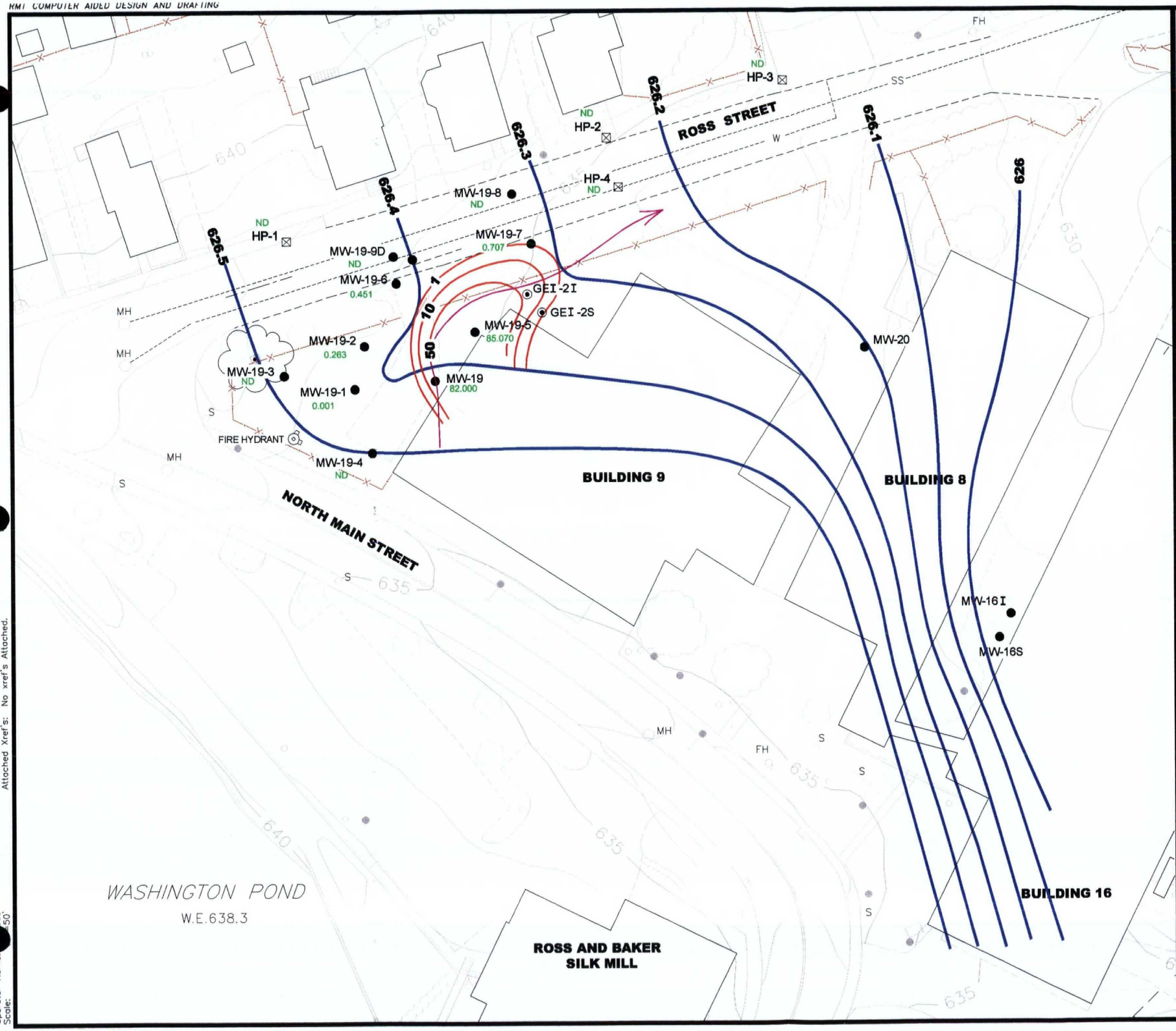
RMT COMPUTER AIDED DESIGN AND DRAFTING



LEGEND

- APPROXIMATE PROPERTY LINE
- FENCE LINE
- SS — APPROXIMATE LOCATION OF ROCKAWAY RIVER REGIONAL INTERCEPTOR SEWER
- 626 — GROUNDWATER ELEVATION CONTOUR
- MW-19-7 (135) — MONITORING WELL LOCATION AND NUMBER WITH CONCENTRATION OF TOTAL BTEX (mg/L)
- GEI-2S — GEOPROBE INSTALLED PIEZOMETER LOCATION AND NUMBER WITH GROUNDWATER ELEVATION
- HP-3 — APPROXIMATE LOCATION AND NUMBER OF HYDROPUNCH SAMPLES
- (NA) NOT ACCESSABLE (SNOW COVERED)
- (ND) NOT DETECTED
- SS — SANITARY SEWER
- G&W — GAS AND WATER
- E — ELECTRIC
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- 50 — ISOCONCENTRATION CONTOUR FOR TOTAL BTEX (ppm)

NOTES

1. GROUNDWATER ELEVATIONS BASED ON LEVELS MEASURED ON JULY 24, 2001
2. SAMPLES COLLECTED ON AUGUST 1 AND 2, 2001.

N

0 40' 80'

SCALE IN FEET

L.E. CARPENTER
WHARTON, NEW JERSEY

MW-19 / HOT SPOT 1 ISOCONCENTRATION MAP
3rd QUARTER 2001

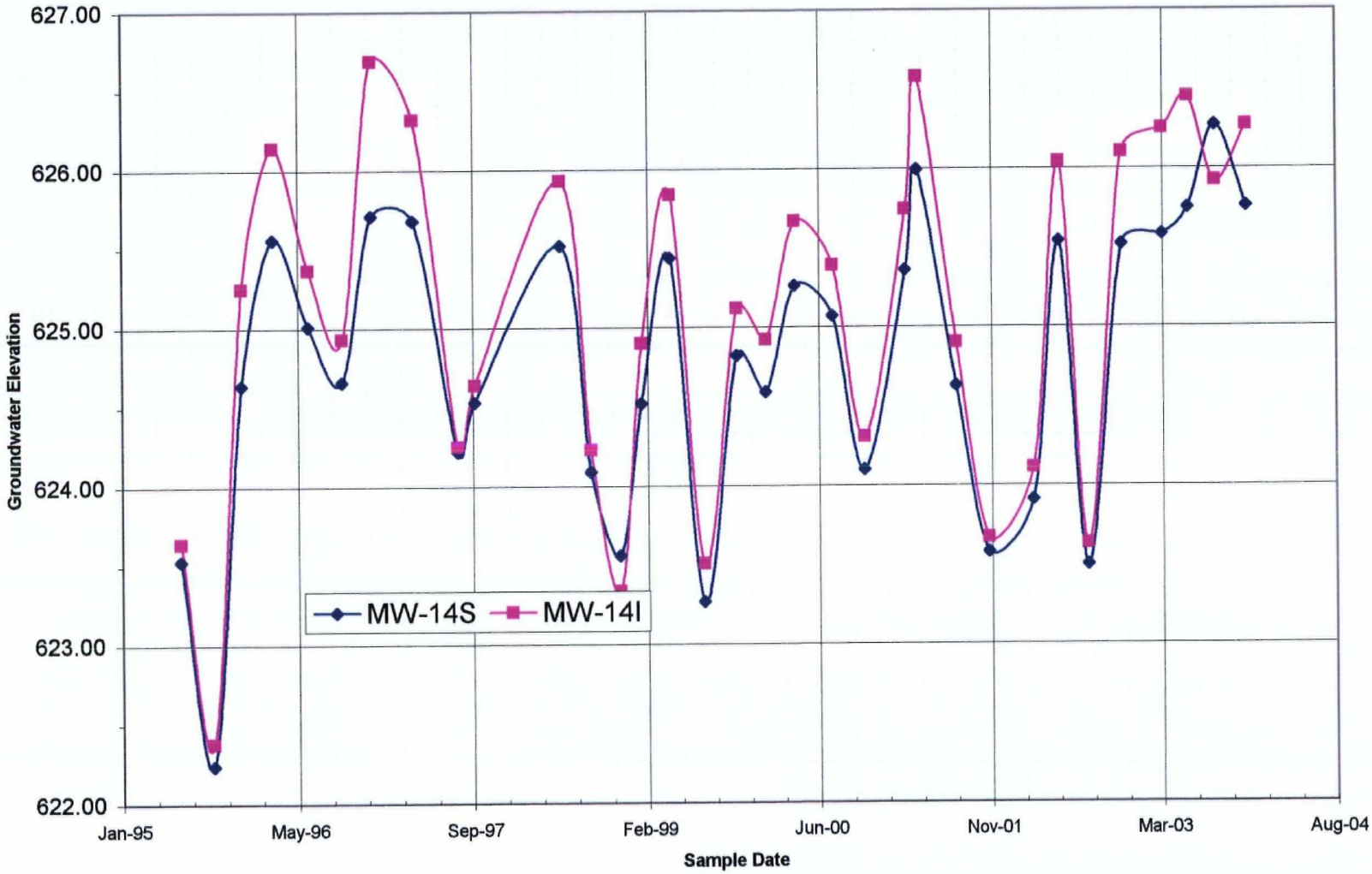
DRAWN BY:	SJL	PROJECT NUMBER:	6527.02
CHECKED BY:	JDD	FILE NUMBER:	65270218.DWG
APPROVED BY:	JDD	DATE:	JANUARY 2003

RMT INC.
1143 HIGHLAND DRIVE, SUITE B
ANN ARBOR, MI. 48108-2237
PHONE: 734-971-7080
FAX: 734-971-9022

FIGURE 8

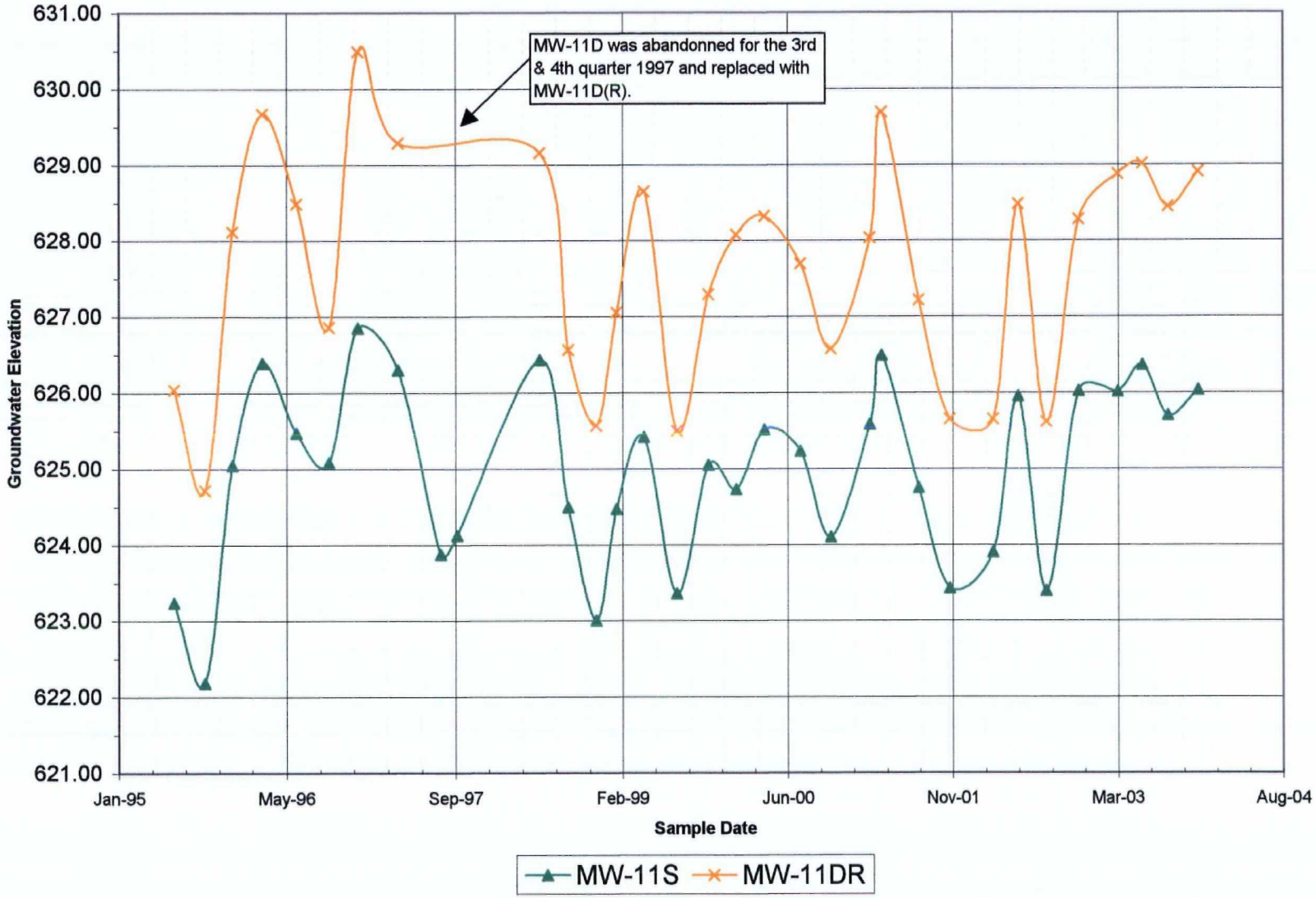
PLOT DATA
Drawing Name: 06527\02\65270218.dwg
Operator Name: dos
Scale: 1=50'
Dwg Size: 1004037 Bytes
Plot Date: February 2004
Plot Time: 3:42:2922 PM
Attached Xref's: No xref's Attached.

Figure 9 - Upward Gradient Trend Chart for the MW-14 Well Cluster



I:\WPGRM\PJT\00-03868\35\MW14Trend.XLS 2/3/2004

Figure 10 - Upward Gradient Trend Chart for the MW-11 Well Cluster



I:\WPGRM\PJT\00-03868\35\MW14Trend.XLS 2/3/2004

Appendix A
Report Certification

RECEIVED FEB 0 3 2004

REPORT CERTIFICATION
PURSUANT TO N.J.A.C. 7:26E-1.5

"I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement, which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

Mr. Cristopher R. Anderson

PRINTED NAME

Director, Environmental Services

TITLE

L.E. Carpenter & Company

COMPANY

SIGNATURE

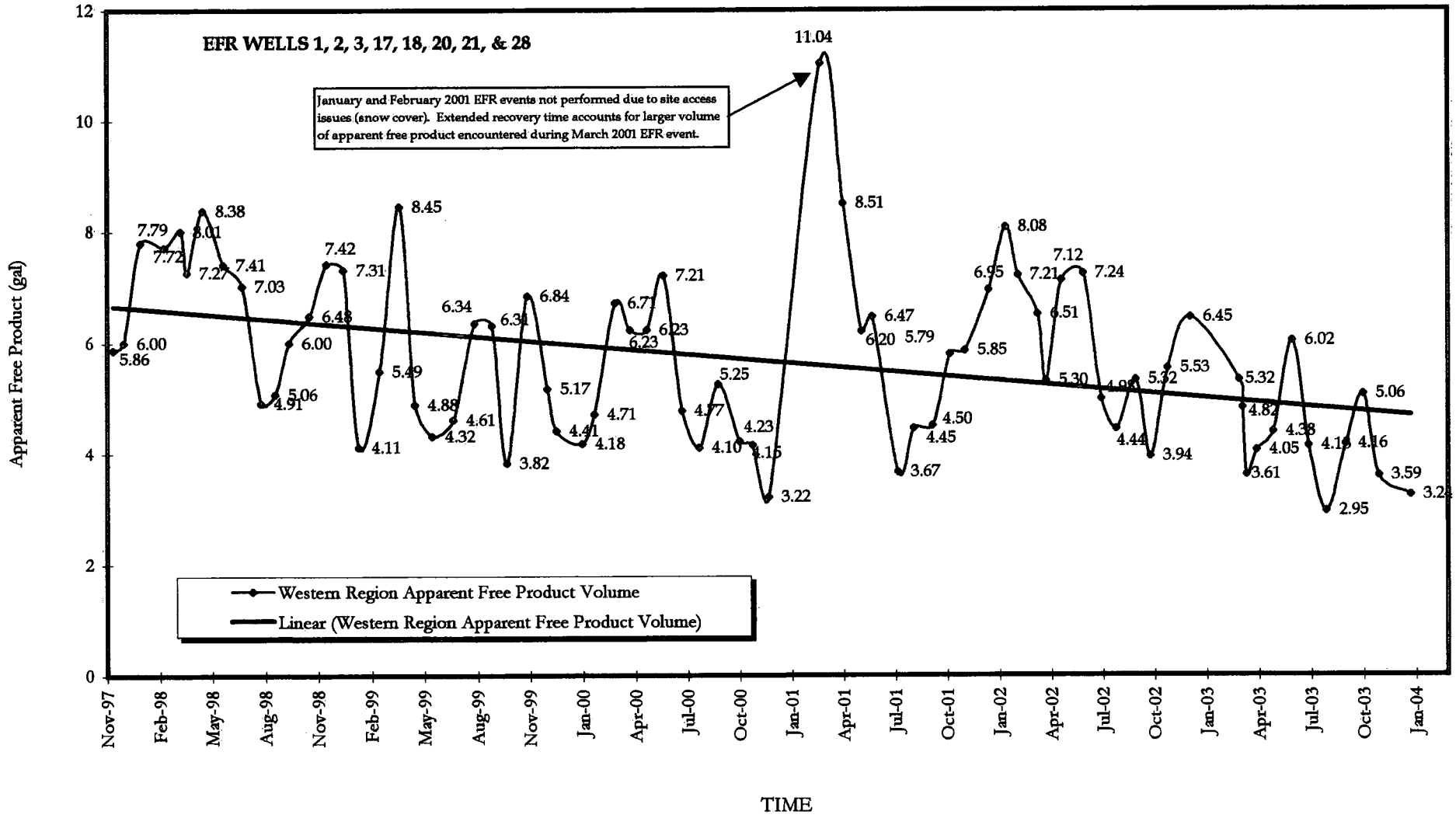
JAN 27, 2004

DATE

Appendix B
Apparent Free Product Volume Trend Charts

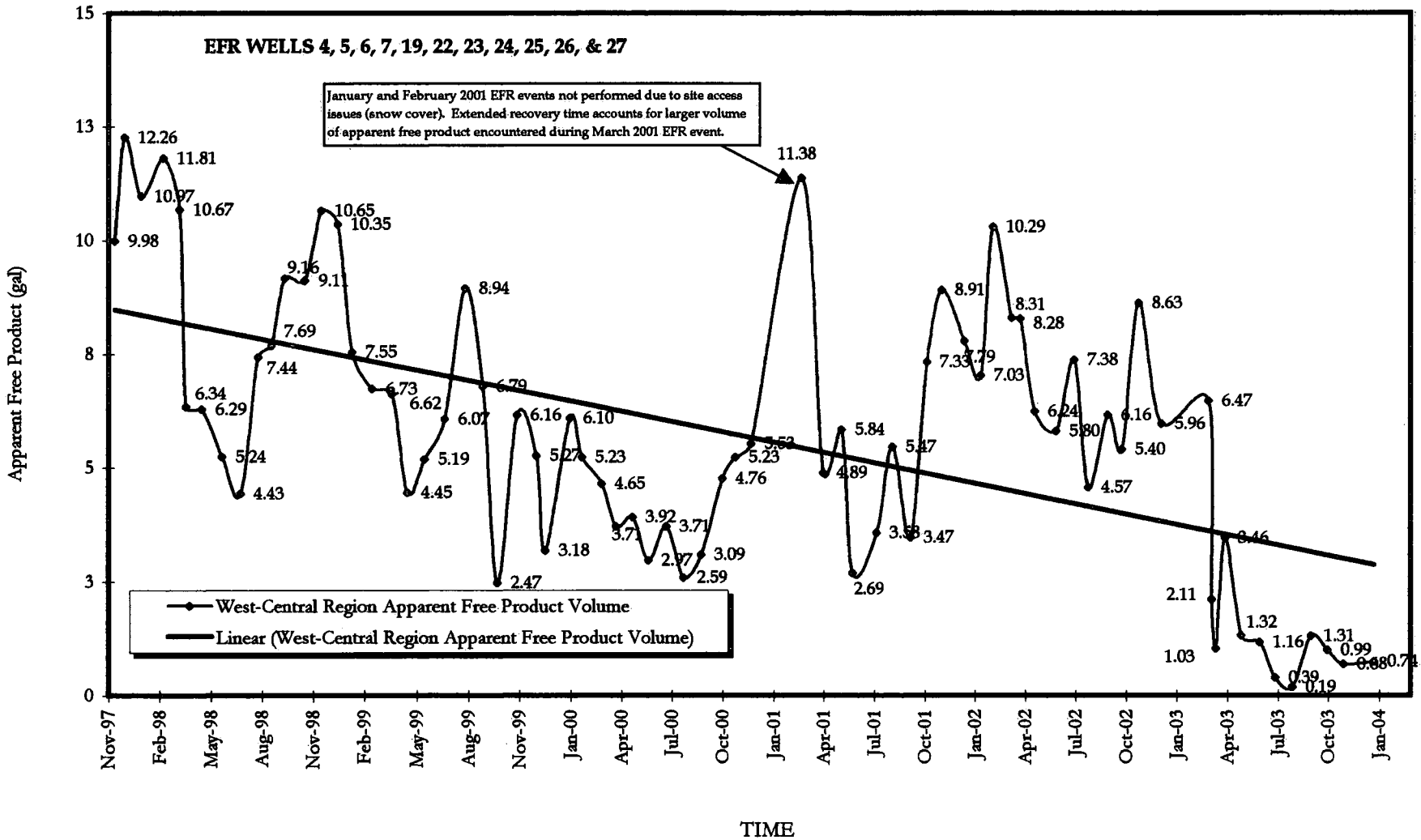
L.E. Carpenter and Company
Western Region of Free Product

Apparent Free Product Volume vs. Time
Through 4th Quarter 2003



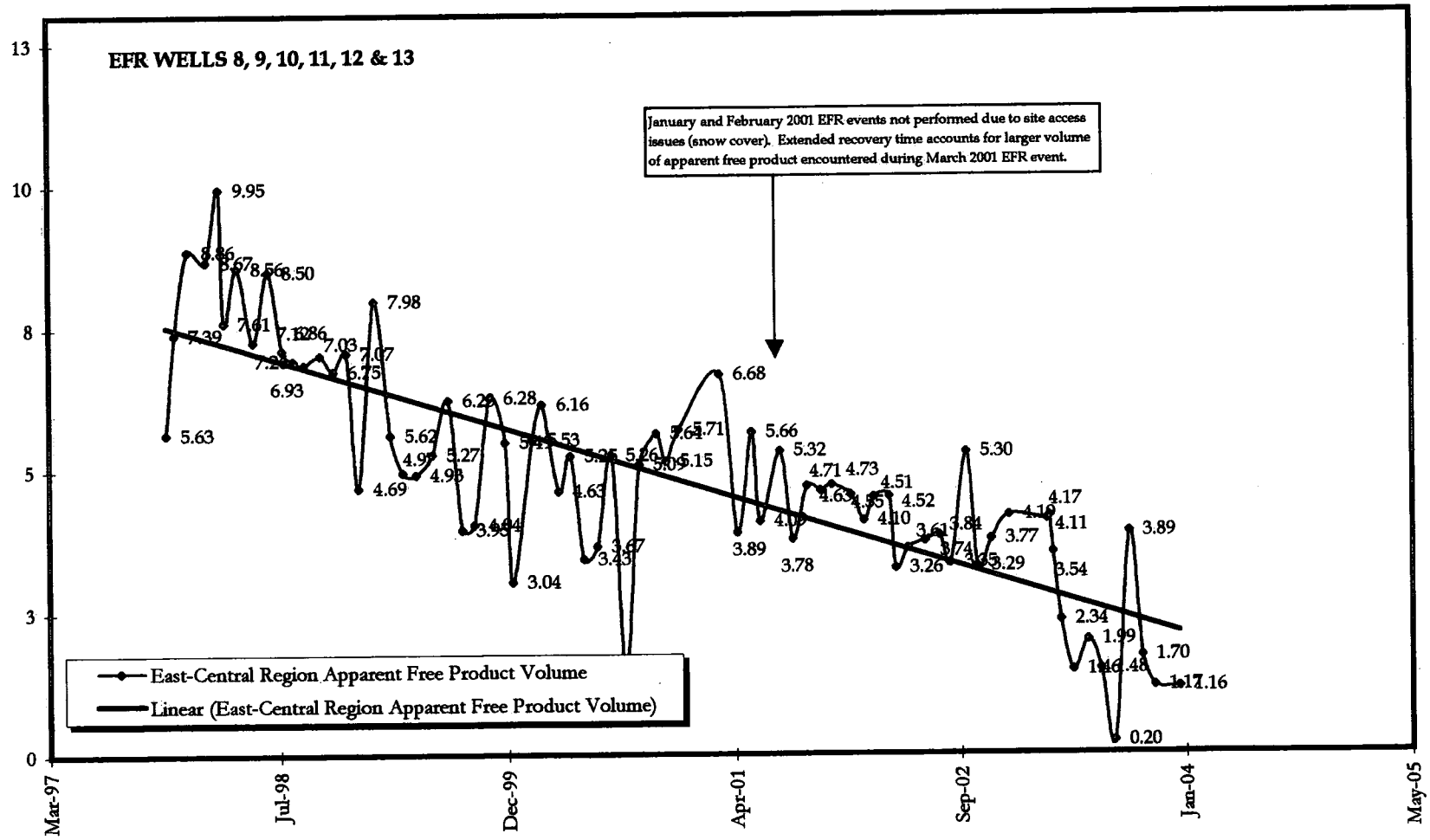
L.E. Carpenter and Company
West-Central Region of Free Product

Apparent Free Product Volume vs. Time
Through 4th Quarter 2003



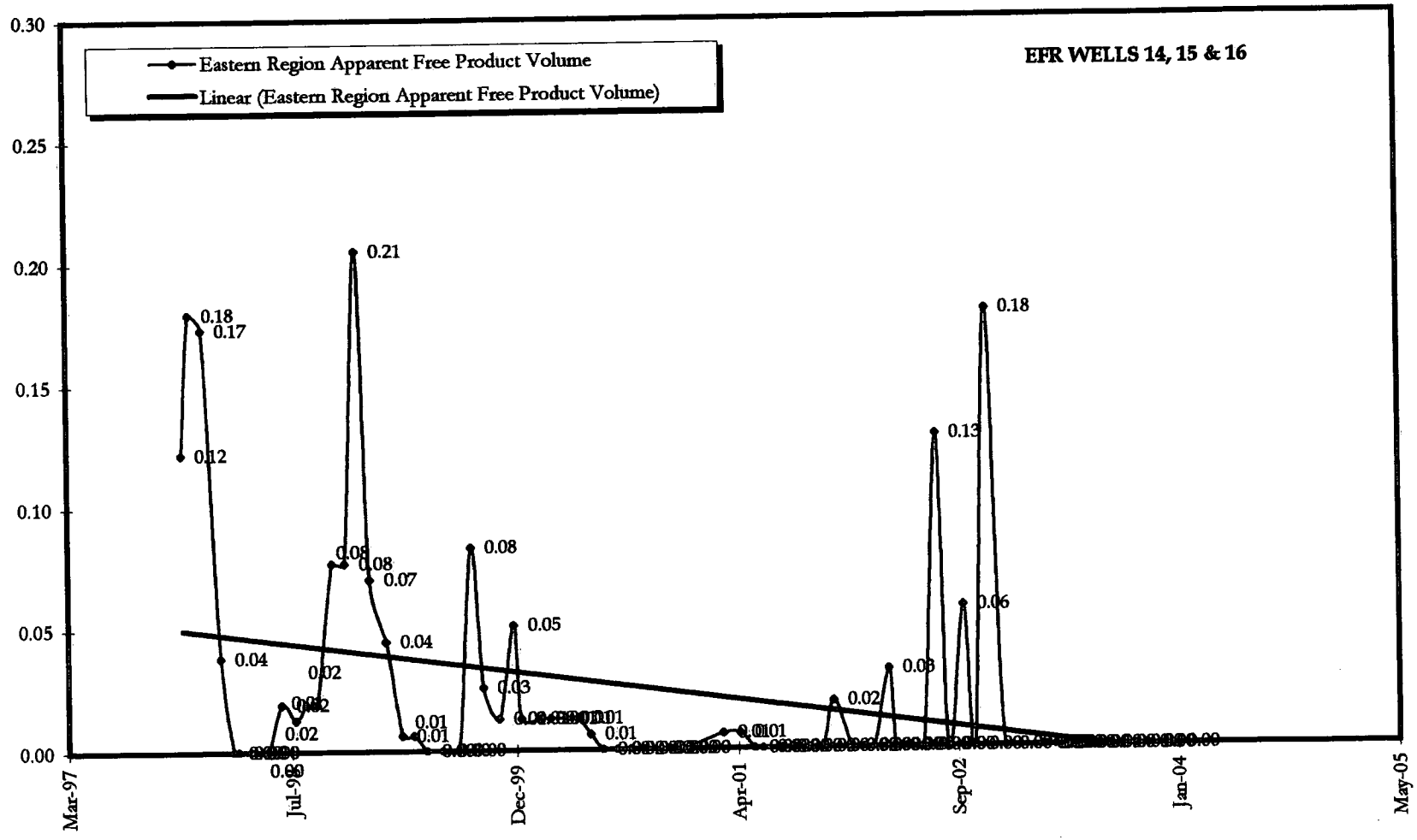
L.E. Carpenter and Company
East-Central Region of Free Product

Apparent Free Product Volume vs. Time
Through 4th Quarter 2003

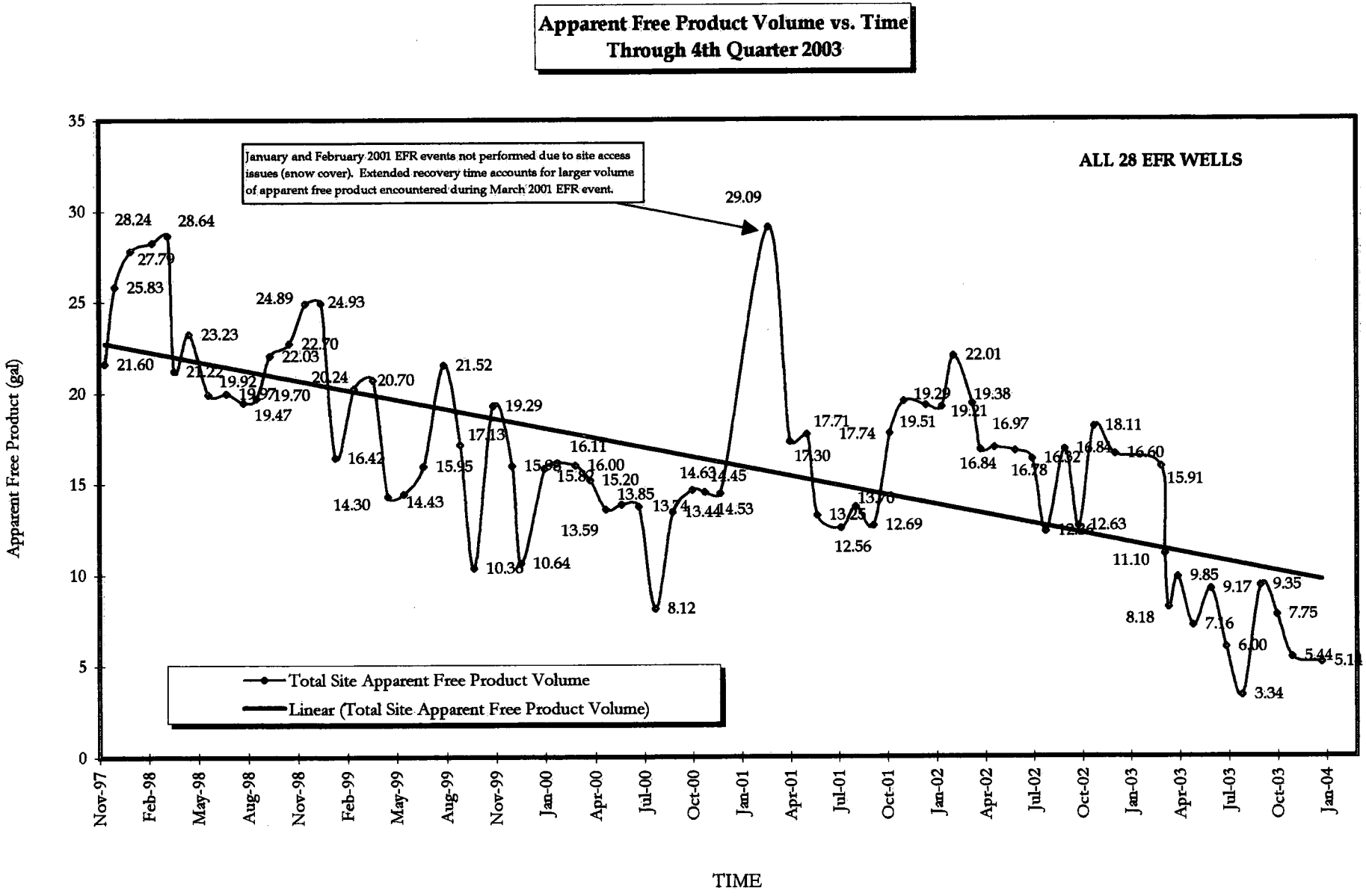


L.E. Carpenter and Company
Eastern Region of Free Product

Apparent Free Product Volume vs. Time
Through 4th Quarter 2003



L.E. Carpenter and Company
Total Site Free Product



Appendix C
4th Quarter 2003 Monitoring Well Sampling Data

RMT INC.

PROJECT NAME:	L.E. Carpenter
PROJECT NUMBER:	00-03868.35
LOCATION:	Wharton, NJ
DATES OF FIELD WORK:	11/17/03 - 11/20/03
PURPOSE OF FIELD WORK:	4th Quarter Groundwater Monitoring
WORK PERFORMED BY:	John Mihalich + Sarah Lapka

Sarah Lapka — Signed — 11/24/03 — Date

[signature] — QC'd By — 1/6/04 — Date

REV 08/27/97

F-180 TITLE
c:\windows\temp\f-180.doc 09/03/97 3:23 PMGRM

RMT

GENERAL NOTES

PROJECT NAME: LEC

DATE: 11/17/03

PROJECT NUMBER: 00-03868.35

AUTHOR: JPM/SSL

TIME ARRIVED ON SITE: 9:45

TIME LEFT SITE: 18:30

WEATHER:
Temperature: 50 F° Wind: calm MPH Visibility: good

WORK/SAMPLING PERFORMED: Water level measurements, Sampled MW21, MW25, MW22, MW14S, and MW14I, and Dupe 01 (at MW22).

PROBLEMS ENCOUNTERED/CORRECTIVE ACTION TAKEN:

-None-

COMMUNICATIONS:

Name/Representing: Dave Condon/LEC

Subject/Comments: none

QC: Overwoode

F-181AA (REV 3/20/01)

G:\Field Forms\gen notes.doc

RMT

GENERAL NOTES

PROJECT NAME: LEC

DATE: 11/18/03

PROJECT NUMBER: 00-03868.35

AUTHOR: JPM/SSL

TIME ARRIVED ON SITE: 7:00

TIME LEFT SITE: 18:25

WEATHER:
Temperature: 50 F° Wind: calm MPH Visibility: raining

WORK/SAMPLING PERFORMED: Finished up remaing water levels, Sampled MW4, MW11D, MW17S, MW15S, MW15I, SW8, SW5, SW7, MW19-6, MW4 MS/MSD

PROBLEMS ENCOUNTERED/CORRECTIVE ACTION TAKEN:

-None-

COMMUNICATIONS:

Name/Representing: None

Subject/Comments: none

QC: deVerroarde

RMT

GENERAL NOTES

PROJECT NAME: LEC
DATE: 11/19/03
PROJECT NUMBER: 00-03868.35
AUTHOR: JPM/SSL
TIME ARRIVED ON SITE: 6:45
TIME LEFT SITE: 18:30

WEATHER:
Temperature: 50 F° Wind: Calm MPH Visibility: raining

WORK/SAMPLING PERFORMED: Sampled MW19-9D, MW19-8, MW19-7, MW19-3, MW19-4, MW19-1, MW19-2, Dupe 02 (at MW19-9D).

PROBLEMS ENCOUNTERED/CORRECTIVE ACTION TAKEN:

- None -

COMMUNICATIONS:

Name/Representing: none

Subject/Comments: none

QC: [illegible]

RMT

GENERAL NOTES

PROJECT NAME: LEC

DATE: 11/20/03

PROJECT NUMBER: 00-03868.35

AUTHOR: JPM/SSL

TIME ARRIVED ON SITE: 7:00

TIME LEFT SITE: 13:00

WEATHER:
Temperature: 40 F°

Wind: Windy MPH

Visibility: good

WORK/SAMPLING PERFORMED: Sampled MW19-5 and MW19

PROBLEMS ENCOUNTERED/CORRECTIVE ACTION TAKEN:

Turbidity meter not calibrating. Called Hach - will send in for service. Removed batteries to try to reset processor - still not working.

COMMUNICATIONS:

Name/Representing: Lancaster Labs

Subject/Comments: none

QC: [illegible]

METER CALIBRATION LOG

PROJECT NAME: LEC DATE: 11/17/03

PROJECT NUMBER: 00-03868.35 SAMPLER NAME: SSL

MODEL: MP20 SERIAL NO.: NA DEVICE OWNER: LEC

pH CALIBRATION

Date / Time	pH 4 Pre-Calibration Reading	pH 4 Post Calibration Reading	pH 7 Pre-Calibration Reading	pH 7 Post Calibration Reading	pH 10 Pre-Calibration Reading	pH 10 Pre-Calibration Reading
11/17/03 10:20	(5.56 / 4.00)	(4.03 / 4.00)	(6.84 / 7.00)	(7.0 / 7.00)	(9.32 / 10.00)	(10.0 / 10.00)
11/17/03 15:27	(4.25 / 4.00)	(4.0 / 4.00)	(7.13 / 7.00)	(7.0 / 7.00)	(9.98 / 10.00)	(10.0 / 10.00)
11/17/03 17:05	(4.05 / 4.00)	(4.0 / 4.00)	(6.98 / 7.00)	(7.0 / 7.00)	(9.99 / 10.00)	(10.0 / 10.00)
11/18/03 7:40	(3.88 / 4.00)	(4.0 / 4.00)	(6.85 / 7.00)	(7.0 / 7.00)	(9.89 / 10.00)	(10.0 / 10.00)
11/18/03 13:45	(4.34 / 4.00)	(4.0 / 4.00)	(7.23 / 7.00)	(7.0 / 7.00)	(10.29 / 10.00)	(10.0 / 10.00)
11/18/03 14:55	(3.62 / 4.00)	(4.0 / 4.00)	(6.91 / 7.00)	(7.0 / 7.00)	(9.78 / 10.00)	(10.0 / 10.00)
	(/ 4.00)	(/ 4.00)	(/ 7.00)	(/ 7.00)	(/ 10.00)	(/ 10.00)
	(/ 4.00)	(/ 4.00)	(/ 7.00)	(/ 7.00)	(/ 10.00)	(/ 10.00)

Buffer Lot Numbers: pH 4: 3129 pH 7: 3223 pH 10: 3224, Solution Source Pine Environmental

CONDUCTIVITY CALIBRATION

Date / Time	Conductivity Solution (units)	Pre-Calibration Reading (units)	Post-Calibration Reading (units)
11/17/03 10:27	mS/cm	6.17	6.04
11/17/03 15:30	mS/cm	6.03	6.04
11/17/03 17:10	mS/cm	1.333	1.413
11/18/03 7:40	mS/cm	1.367	1.413
11/18/03 13:45	mS/cm	1.417	1.413
11/18/03 14:55	mS/cm	1.500	1.413

Calibration Solution Lot Number: 2815 Calibration Range for Solution 1413 uS/cm

Problems/Corrective Actions: none

Sarah Lapka 11/24/03 DOverwoorde 1/6/03

Signed Date Reviewed By Date

Turbidity Meter

MODEL: Pocket turbidimeter **SERIAL NO.:** 0205000044 21

Date / Time	Pre-Calibration 1 NTU Reading	Post-Calibration 1 NTU Reading	Pre-Calibration ~~10~~ 20 NTU Reading	Post-Calibration ~~10~~ 20 NTU Reading
11/17/03 10:31	1.5	1.0	22.3	20.0
11/17/03 15:35	3.2	1.0	19.0	20.0
11/17/03 17:00	0.5	1.0	20.7	20.2
11/18/03 7:35	2.1	1.0	22.1	20.1
11/18/03 13:50	0.8	1.1	20.5	20.0
11/18/03 15:05	1.4	1.1	20.2	20.0

Calibration Solution Lot Number: A2067 (1) A2093 (20) Calibration Range for Solution NA

Problems/Corrective Actions: none

Sarah Lapka — Signed; 11/24/03 — Date; Overwoorde — Reviewed By; 1/6/04 — Date

METER CALIBRATION LOG

PROJECT NAME: LEC DATE: 11/19/03

PROJECT NUMBER: 00-03868.35 SAMPLER NAME: SSL

MODEL: MP20 SERIAL NO.: NA DEVICE OWNER: LEC

pH CALIBRATION

Date / Time	pH 4 Pre-Calibration Reading	pH 4 Post-Calibration Reading	pH 7 Pre-Calibration Reading	pH 7 Post-Calibration Reading	pH 10 Pre-Calibration Reading	pH 10 Pre-Calibration Reading
11/19/03 7:40	(5.05 / 4.00)	(4.0 / 4.00)	(7.15 / 7.00)	(7.0 / 7.00)	(9.20 / 10.00)	(10.0 / 10.00)
11/19/03 13:00	(4.92 / 4.00)	(4.00 / 4.00)	(7.41 / 7.00)	(7.0 / 7.00)	(10.20 / 10.00)	(10.0 / 10.00)
11/19/03 16:00	(4.98 / 4.00)	(4.0 / 4.00)	(7.20 / 7.00)	(7.0 / 7.00)	(10.41 / 10.00)	(10.0 / 10.00)
11/19/03 17:09	(4.45 / 4.00)	(4.0 / 4.00)	(7.16 / 7.00)	(7.0 / 7.00)	(10.10 / 10.00)	(10.0 / 10.00)
11/20/03 7:50	(4.21 / 4.00)	(4.0 / 4.00)	(6.95 / 7.00)	(7.0 / 7.00)	(8.34 / 10.00)	(10.0 / 10.00)
	(/ 4.00)	(/ 4.00)	(/ 7.00)	(/ 7.00)	(/ 10.00)	(/ 10.00)
	(/ 4.00)	(/ 4.00)	(/ 7.00)	(/ 7.00)	(/ 10.00)	(/ 10.00)
	(/ 4.00)	(/ 4.00)	(/ 7.00)	(/ 7.00)	(/ 10.00)	(/ 10.00)

Buffer Lot Numbers: pH 4: 4098 pH 7: 4000 pH 10: 4109, Solution Source Pine Environmental

CONDUCTIVITY CALIBRATION

Date / Time	Conductivity Solution (units)	Pre-Calibration Reading (units)	Post-Calibration Reading (units)
11/19/03 7:43	ms/cm	1.254	1.413
11/19/03 13:05	mS/cm	1.386	1.413
11/19/03 16:00	ms/cm	1.425	1.413
11/19/03 17:09	mS/cm	1.420	1.413
11/20/03 7:55	mS/cm	1.462	1.413

Calibration Solution Lot Number: 2815 Calibration Range for Solution 1413 uS/cm

Problems/Corrective Actions: none

Sarah Lapka 11/24/03 [signature] 1/6/04

Signed Date Reviewed By Date

Turbidity Meter

MODEL: Pocket turbidimeter **SERIAL NO.:** 020500004421

Date / Time	Pre-Calibration 1 NTU Reading	Post-Calibration 1 NTU Reading	Pre-Calibration ~~10~~ 20 NTU Reading	Post-Calibration ~~10~~ 20 NTU Reading
11/19/03 7:46	0.4	1.0	19.8	20.7
11/19/03 13:07	0.3	1.0	15.4	20.1
11/19/03 16:10	2.4	1.1	22.3	19.0
11/19/03 17:45	1.6	1.0	21.2	20.0
11/20/03 8:00	*			

Calibration Solution Lot Number: A2067(1) A2093(20) Calibration Range for Solution NA

Problems/Corrective Actions: * meter will not calibrate, called Hach, they said remove batteries + let sit for 30 mins to reset processor. also, calibrating 4 x day is excessive, once per day is more than enough

Sarah Lapka 11/24/03 Overwoorde 1/6/04

Signed Date Reviewed By Date

10/62

RMT

WATER LEVEL DATA

PROJECT NAME L.E. Carpenter

DATE: 11/17/03

PROJECT NUMBER: 00-03868.35

SAMPLER: SSL

Well ID	Time	Top of Casing Elevation	Historical Depth to Water	Depth to Product (feet)*	Depth to Water (feet)**	Depth to Bottom (feet)	Water Elev. (MSL)
WPA1	11:37		10.56	9.81	10.38	TOC	
WPA2	11:42		13.11	12.45	12.95		
WPA4	11:48		11.77	8.52	11.09		
WPA5	11:52		11.02	—	10.80		
WPA6	11:55		13.39	10.48	13.57		
WPA7	12:08		9.99	8.30	9.66		
WPA8	12:02		12.69	10.91	12.15		
WPA9	12:12		14.54	12.40	14.29		
WPB1	12:16		6.48	—	6.19		
WPB2	12:21		5.88	—	5.61		
WPB3	12:18		6.67	—	6.49		
WPB4	12:23		8.41	6.51	6.54		
WPB5	12:29		5.04	—	4.78		
RW-1	16:45		11.79	10.99	11.09		
RW2	12:43		5.73	—	5.47		
RW3	12:33		6.00	—	5.75		
CW-1	12:37		7.03	—	7.04		
MW1R	16:43		9.61	8.71	9.61		
MW2R	12:46		6.13	—	5.85		
MW3	12:40		7.39	6.15	7.29		
~~MW6R~~ MW1S	12:54	12.18	~~6.03~~	6.55	12.49		
~~MW1S~~ MW6R	12:52		~~12.78~~ 6.03	—	6.78		

* Note the Presence of Sheen as an "S"

* All Water Levels Must Include Reference Point and Tape Correction factor, i.e., 1.1 + 0.00 T/PVC.

TYPE OF MEASURING DEVICE: Solinst interface meter

Sarah Lapka 11/24/03 Model 122

Signed Date

dOvenovde 1/6/04

QC'd By Date

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11/62

RMT

WATER LEVEL DATA

PROJECT NAME L.E. Carpenter

DATE: 11/17/03

PROJECT NUMBER: 00-03868.35

SAMPLER: SSL

Well ID	Time	Top of Casing Elevation	Historical Depth to Water	Depth to Product (feet)	Depth to Water (feet)*	Depth to Bottom (feet)	Water Elev. (MSL)
MW11IR	12:56		7.12		6.80	TOC	
MW11DR	12:58		4.64		4.18		
MW21	10:30		3.08		2.90		
MW25	10:32		2.10		1.89		
MW22	10:35		2.68		2.50		
WPA3	13:23		8.86		8.44		
MW16I	13:31		7.85		7.49		
MW16S	13:34		7.41		7.16		
MW20	13:38		9.00		8.34		
SL ~~MW23~~			~~2.49~~				
WPC1	14:38		7.14		6.71		
WPC2	14:43		8.24		7.74		
WPC3	14:37		6.39		5.94		
WPC4	14:44		6.10		5.76		
WPB6	16:58		6.19		5.77		
WPB7	16:55		4.17		3.79		
WPB10	16:49		6.58		6.21		
MW19	16:11		8.91		8.63		
MW19-1	16:20		8.64		8.40		
MW19-2	16:22		9.32		9.09		
MW19-3	16:17	~~16:1~~ SL	9.55		9.43		
MW19-4	16:14		8.21		8.11		

* Note the Presence of Sheen as an "S"

* All Water Levels Must Include Reference Point and Tape Correction factor, i.e., 1.1 + 0.00 T/PVC.

TYPE OF MEASURING DEVICE: Solenst water level meter

Sarah Lapka 11/24/03

Signed Date

Overwoorde 1/6/04

QC'd By Date

12/62

RMT

WATER LEVEL DATA

PROJECT NAME L.E. Carpenter

DATE: 11/17/03

PROJECT NUMBER: 00-03868.35

SAMPLER: SSL

	Well ID	Time	Top of Casing Elevation	Historical Depth to Water	Depth to Product (feet)*	Depth to Water (feet)*	Depth to Bottom (feet)	Water Elev. (MSL)
	MW19-5	16:07		8.71		8.36	TOC	
	MW19-6	15:04		8.89		8.62		
	MW19-7	15:14		8.18		7.89		
	MW19-8	16:07		8.59		8.35		
	MW19-9D	15:10		8.63		8.28		
W	GE I I	8:26		4.14		3.97		
L	GE I 2S	7:27		10.35		10.01		
L	GE I 2I	7:25		10.42		10.05		
	GE I 3I	16:29		12.55		12.20		
	MW4	7:16		6.22		5.91		
	MW8	7:20		4.86		2.76		
	MW9	7:17		5.42		3.58		
	MW12R	14:41		7.96		8.09		
	MW14S	14:21		2.14		2.65		
	MW14I	14:19		2.31		1.96		
	MW15S	14:54		10.23		9.83		
	MW15I	14:56		10.05		9.71		
	MW17S	14:50		7.97		7.62		
W	MW18S	8:24		5.03		4.68		
W	MW18I	8:23		4.57		4.22		
	MW26	16:52		7.21		8.02		
	SGR-1	16:30		1.38		1.56		

* Note the Presence of Sheen as an "S"

* All Water Levels Must Include Reference Point and Tape Correction factor, i.e., 1.1 + 0.00 T/PVC.

TYPE OF MEASURING DEVICE: Solinst water level meter

Sarah Lapka 11/24/03

Signed Date

dVenvoorde 1/6/04

QC'd By Date

P:\PolyOne\03868.35\LECWLForm.xls 11/13/2003

13/62

RMT

WATER LEVEL DATA

PROJECT NAME L.E. Carpenter

DATE: 11/17/03

PROJECT NUMBER: 00-03868.35

SAMPLER: SSL

	Well ID	Time	Top of Casing Elevation	Historical Depth to Water	Depth to Product (feet)*	Depth to Water (feet)*	Depth to Bottom (feet)	Water Elev. (MSL)*
	SGR2	14:46		0.49		0.55		
	SGR3	12:54		0.70		0.78		
AP	SGD1	8:07		1.30		1.40		
AP	SGD2	7:55		1.50		1.20		
AP	SGD3	7:41		1.56		1.68		
AP	MW13R	7:31		4.70		4.41	TOC	
AP	MW13S	7:35		5.37		5.30	TOC	
AP	MW13I	7:33		4.58		4.29	TOC	
	CW3	14:30		7.07		7.04	TOC	
AP	MW23	7:39		4.11		4.02	TOC	

* Note the Presence of Sheen as an "S"

* All Water Levels Must Include Reference Point and Tape Correction factor, i.e., 1.1 + 0.00 T/PVC.

TYPE OF MEASURING DEVICE: solinst water level meter

Sarah Lapka 11/24/03

Signed Date

J Overvoorde 1/6/04

QC'd By Date

RMT

WATER SAMPLE LOG

Sheet 14 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/17/03	SAMPLE TIME: 11:31

WELL INFORMATION	WELL ID: MW21	WELL DIAMETER: 4"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 2.86	TOTAL DEPTH: 15.0	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none	☐ EQUIP. COATING ☐ PURGE WATER	

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED submersible pump	PNEUMATIC SOURCE portable compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: in well
WATER QUALITY METER TYPE: MP 20 Flowcell	CALIBRATION DATE / TIME 11/17/03, 10:20	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 0.68 UNITS mg/L	FINAL ORP 32 UNITS mV	FINAL TURBIDITY: 12.3
FINAL PH: 7.39	FINAL COND. 429 UNITS umhos/cm	FINAL TEMP.: 12.70
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40 mL	VOA	E	☐Y ☑ N					☐Y ☐N
2	500 mL	amber	F	☐Y ☑ N					☐Y ☐N
				☐Y ☐ N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040553 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

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RMT

R 10
D 5
PSI 10

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW-21

PROJECT NUMBER: 00-03868.35

WELL DIAMETER: ~~M~~ JPM 4"

DATE: 11-17-03

SAMPLER: JPM

Type of pump used: Submersible bladder

Sample Depth: 10 feet

Pumping rate (ml/minute): 300

Water level before purging (nearest 0.01 ft. below reference point) 2.86+ T/

Depth to bottom of well (obtained from well logs) 15.0+ T/

Calculated volume of water in casing 7.93

Weather conditions overcast; cool (50s); calm

Started pumping at 11:09

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
11:13	300	7.49	452	75.0	1.47	60	12.48	2.86	—
11:18		7.34	425	23.1	1.05	35	12.77	2.86	0.1
11:21		7.36	425	12.8	0.68	34	12.74	2.86	0.2
11:26		7.38	426	12.0	0.67	33	12.67	2.86	0.3
ample 11:31		7.39	429	12.3	0.68	32	12.70	2.86	0.4

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed

11/24/03 — Date

dOverwoode — QC'd By

1/6/04 — Date

RMT

WATER SAMPLE LOG

Sheet 16 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/17/03	SAMPLE TIME: 13:01

WELL INFORMATION	WELL ID: MW25	WELL DIAMETER: 2"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 1.96	TOTAL DEPTH: 10.0	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none	☐ EQUIP. COATING ☐ PURGE WATER	

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: Submersible bladder	PNEUMATIC SOURCE portable compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: in well
WATER QUALITY METER TYPE: MP 20 flow cell	CALIBRATION DATE / TIME 11/17/03, 10:20	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 1.44 UNITS mg/L	FINAL ORP 10 UNITS mV	FINAL TURBIDITY: 68.4
FINAL PH: 6.84	FINAL COND. 618 UNITS umhos/cm	FINAL TEMP.: 11.84
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑ N					☐Y ☐N
2	500mL	amber	F	☐Y ☑ N					☐Y ☐N
				☐Y ☐ N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040853 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

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RMT

R 10
D 5
PSI 15

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW-25

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 2"

DATE: 11-17-03 SAMPLER: JPM

Type of pump used: submersible bladder

Sample Depth: 5 ft

Pumping rate (ml/minute): 300

Water level before purging (nearest 0.01 ft. below reference point) 1.96 + T/

Depth to bottom of well (obtained from well logs) 10.0 + T/

Calculated volume of water in casing 1.31

Weather conditions overcast; cool (50s); calm
started pumping at 12:16

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
1221	300	6.94	615	278	2.11	17	11.62	1.96	—
1226		6.89	617	320	1.74	15	11.68	1.92	0.1
1231		6.87	618	334	1.60	14	11.72	1.92	0.2
1236		6.85	617	295	1.59	13	11.78	1.92	0.3
1241		6.87	618	113	1.56	11	11.79	1.92	0.4
1246		6.86	619	95.7	1.50	11	11.85	1.92	0.5
1251		6.86	619	68.5	1.48	10	11.85	1.92	0.6
1256		6.84	618	66.5	1.48	10	11.84	1.92	0.7
sample 1301		6.84	618	68.4	1.44	10	11.84	1.92	0.8

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka 11/24/03 Overwoorde 1/6/04

Signed Date QC'd By Date

RMT

WATER SAMPLE LOG

Sheet 18 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/17/03	SAMPLE TIME: 14:32

WELL INFORMATION	WELL ID: MW22	WELL DIAMETER: 2"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 2.62	TOTAL DEPTH: 7.5	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none ☐ EQUIP. COATING ☐ PURGE WATER		

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED submersible bladder	PNEUMATIC SOURCE portable compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: in well
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/17/03 10:20	

SAMPLE DESCRIPTION	COLOR: Clear	ODOR: none
FINAL D.O. 1.82 UNITS mg/L	FINAL ORP 6 UNITS mV	FINAL TURBIDITY: 17.3
FINAL PH: 6.40	FINAL COND. 708 UNITS umhos/cm	FINAL TEMP.: 12.00
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B – HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑N					☐Y ☐N
2	500mL	amber	F	☐Y ☑N					☐Y ☐N
				☐Y ☐N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040553 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

Overwrote 1/6/04

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D 5
PSI 10

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LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW-22

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 2"

DATE: 11-17-03 SAMPLER: JPM

Type of pump used: submersible bladder

Sample Depth: ~~[illegible]~~

Pumping rate (ml/minute): 240

Water level before purging (nearest 0.01 ft. below reference point) 2.62 T/

Depth to bottom of well (obtained from well logs) 25 + T/

Calculated volume of water in casing 0.795

Weather conditions slight breeze; colder (40s); overcast
started pumping at 13:45

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft)	Cumulative Purge Volume (gal)
1347	240	6.25	699	230	2.53	44	12.39	2.62	—
1352		5.99	706	148	1.82	51	12.35	2.62	0.08
1357		6.10	707	85.7	1.79	36	12.22	2.62	0.16
1402		6.11	708	39.9	1.65	32	12.18	2.62	0.24
1407		6.16	707	36.1	1.23	26	12.21	2.62	0.32
1412		6.25	707	17.9	1.49	17	12.23	2.62	0.40
1417		6.36	707	18.5	1.61	7	12.14	2.62	0.48
1422		6.40	708	17.9	1.68	6	12.07	2.62	0.56
1427		6.35	708	16.5	1.80	9	12.00	2.62	0.64
sample 1432		6.40	708	17.3	1.82	6	12.00	2.62	0.72

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed
11/24/03 — Date
[illegible] — QC'd By
1/6/04 — Date

RMT

WATER SAMPLE LOG

Sheet 20 of 67

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/17/03	SAMPLE TIME: 16:23

WELL INFORMATION	WELL ID: MW14I	WELL DIAMETER: 2"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 1.96	TOTAL DEPTH: 44.3	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none	☐ EQUIP. COATING ☐ PURGE WATER	

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED submersible bladder	PNEUMATIC SOURCE portable compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: in well
WATER QUALITY METER TYPE: MP20 flowcell	CALIBRATION DATE / TIME 11/17/03 15:27	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 1.1 UNITS mg/L	FINAL ORP 71 UNITS mV	FINAL TURBIDITY: 28.3
FINAL PH: 6.39	FINAL COND. 293 UNITS umhos/cm	FINAL TEMP.: 12.39
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑N					☐Y ☐N
2	500mL	amber	F	☐Y ☑N					☐Y ☐N
				☐Y ☐N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040553 DATE SHIPPED: 11/20/03 METHOD: courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

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RMT

R 10
D 10
PSI 25

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW-14 I

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 2"

DATE: 11-17-03 SAMPLER: JPM

Type of pump used: submersible bladder

Sample Depth: 38 ft.

Pumping rate (ml/minute): 300

Water level before purging (nearest 0.01 ft. below reference point) 1.96 + T/

Depth to bottom of well (obtained from well logs) 44.3+ T/

Calculated volume of water in casing 6.90

Weather conditions Cold (40s); calm; over cast

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
1545	300	7.04	301	>440	1.07	50	12.28	1.96	–
1550		6.87	297	425	1.18	53	12.30	1.96	0.1
1555		6.95	295	239	1.17	55	12.33	1.96	0.2
1600		6.89	294	150	1.12	56	12.39	1.96	0.3
→ 1605		6.58	294	103	1.24	64	12.42	1.96	0.4
→ 1608		6.43	292	49.5	1.06	69	12.43	1.96	0.5
1613		6.36	293	27.1	1.14	71	12.41	1.96	0.6
1618		6.34	293	27.9	1.10	72	12.40	1.96	0.7
sample 1623		6.39	293	28.3	1.10	71	12.39	1.96	0.8

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed — 11/24/03 — Date

DOverworde — QC'd By — 1/6/04 — Date

RMT

WATER SAMPLE LOG

Sheet 22 of 67

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/17/03	SAMPLE TIME: 17:44

WELL INFORMATION	WELL ID: MW145	WELL DIAMETER: 4"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 2.75	TOTAL DEPTH: 15.46	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: None ☐ EQUIP. COATING ☐ PURGE WATER		

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED submersible bladder	PNEUMATIC SOURCE MP20 compressor	
BLADDER TYPE: PE	(new) / used)	
TUBING TYPE: PE	TUBING CONDITION: Good	HOW STORED: In well
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/17/03, 17:05	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 1.76 UNITS mg/L	FINAL ORP -13 UNITS mV	FINAL TURBIDITY: 7.3
FINAL PH: 6.89	FINAL COND. 544 UNITS umhos/cm	FINAL TEMP.: 11.94
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑N					☐Y ☐N
2	500mL	amber	F	☐Y ☑N					☐Y ☐N
				☐Y ☐N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040553 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

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RMT

R 10
D 5
PSI 15

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW-14S

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 4"

DATE: 11-17-03 SAMPLER: JPM

Type of pump used: Submersible bladder

Sample Depth: 9 ft

Pumping rate (ml/minute): 240

Water level before purging (nearest 0.01 ft. below reference point) 2.75+ T/

Depth to bottom of well (obtained from well logs) 15.46+ T/

Calculated volume of water in casing 8.30

Weather conditions Cool (40s); calm; overcast; dark

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
1719	240	6.97	546	27.0	3.01	5	11.05	2.75	0.08
1724		6.85	544	11.7	1.94	3	11.64	2.71	0.16
1729		6.86	544	7.8	1.83	-1	11.82	2.70	0.24
1734		6.86	543	7.1	1.79	-6	11.98	2.75	0.32
1739		6.88	543	7.0	1.79	-10	11.98	2.75	0.40
Sample 1744		6.89	544	7.3	1.76	-13	11.94	2.75	0.48

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka 11/24/03 dOverrode 11/6/04

Signed Date QC'd By Date

RMT

WATER SAMPLE LOG

Sheet 24 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/18/03	SAMPLE TIME: 7:46

WELL INFORMATION	WELL ID: SW 8	WELL DIAMETER:
WELL MATERIAL: —	WELL CONDITIONS: —	
STATIC WATER LEVEL: —	TOTAL DEPTH: —	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: _____ ☐ EQUIP. COATING ☐ PURGE WATER		

SAMPLE METHOD	PURGE METHOD: grab (use purge form)	
SAMPLING PUMP: —	PNEUMATIC SOURCE	
BLADDER TYPE: — (new / used)		
TUBING TYPE: —	TUBING CONDITION: —	HOW STORED: —
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/18/03, 7:40	

SAMPLE DESCRIPTION	COLOR: Clear	ODOR: none
FINAL D.O. 3.63 UNITS mg/L	FINAL ORP 79 UNITS mV	FINAL TURBIDITY: 16.2
FINAL PH: 8.32	FINAL COND. 979 UNITS umhos/cm	FINAL TEMP.: 8.82
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO_3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑N					☐Y ☐N
2	500mL	amber	F	☐Y ☑N					☐Y ☐N
				☐Y ☐N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040553 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

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LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: SW-8

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: NA

DATE: 11/18/03 SAMPLER: SSL

Type of pump used: NA

Sample Depth: NA

Pumping rate (ml/minute): NA

Water level before purging (nearest 0.01 ft. below reference point) NA+ T/

Depth to bottom of well (obtained from well logs) NA + T/

Calculated volume of water in casing NA

Weather conditions Cloudy, cool, 40°

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
7:46	—	8.32	979	16.2	3.63	79	8.82	—	—

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka 11/24/03 [signature] 1/6/04

Signed Date QC'd By Date

RMT

WATER SAMPLE LOG

Sheet 26 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/18/03	SAMPLE TIME: 7:58

WELL INFORMATION	WELL ID: SW-5	WELL DIAMETER: —
WELL MATERIAL: —	WELL CONDITIONS: —	
STATIC WATER LEVEL: —	TOTAL DEPTH: —	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: _____ ☐ EQUIP. COATING ☐ PURGE WATER		

SAMPLE METHOD	PURGE METHOD: grab (use purge form)	
SAMPLING PUMP: —	PNEUMATIC SOURCE	
BLADDER TYPE: — (new / used)		
TUBING TYPE: —	TUBING CONDITION: —	HOW STORED: —
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/18/03, 7:40	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 2.32 UNITS mg/L	FINAL ORP 56 UNITS mV	FINAL TURBIDITY: 53.2
FINAL PH: 7.37	FINAL COND. 902 UNITS umhos/cm	FINAL TEMP.: 9.03
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑N					☐Y ☐N
2	500mL	amber	F	☐Y ☑N					☐Y ☐N
				☐Y ☐N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040556 DATE SHIPPED: 11/20/03 METHOD: courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

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LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: SW-5

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: NA

DATE: 11/18/03 SAMPLER: JPM

Type of pump used: NA

Sample Depth: NA

Pumping rate (ml/minute): NA

Water level before purging (nearest 0.01 ft. below reference point) NA+ T/

Depth to bottom of well (obtained from well logs) NA+ T/

Calculated volume of water in casing NA

Weather conditions Cloudy, Cold, 40°

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
7:58	—	7.37	902	53.2	2.32	56	9.03	—	—

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka 11/24/03 Drenowde 1/6/04

Signed Date QC'd By Date

RMT

WATER SAMPLE LOG

Sheet 28 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/18/03	SAMPLE TIME: 8:07

WELL INFORMATION	WELL ID: SW-7	WELL DIAMETER: —
WELL MATERIAL: —	WELL CONDITIONS: —	
STATIC WATER LEVEL: —	TOTAL DEPTH: —	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: _____ ☐ EQUIP. COATING ☐ PURGE WATER		

SAMPLE METHOD	PURGE METHOD: grab (use purge form)	
SAMPLING PUMP: —	PNEUMATIC SOURCE —	
BLADDER TYPE: — (new / used)		
TUBING TYPE: —	TUBING CONDITION: —	HOW STORED: —
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/18/03 7:46	

SAMPLE DESCRIPTION	COLOR: Clear	ODOR: None
FINAL D.O. 2.39 UNITS mg/L	FINAL ORP 30 UNITS mV	FINAL TURBIDITY: 13.2
FINAL PH: 7.20	FINAL COND. 686 UNITS umhos/cm	FINAL TEMP.: 8.56
COMMENTS: None		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑N					☐Y ☐N
2	500mL	amber	F	☐Y ☑N					☐Y ☐N
				☐Y ☐N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 004055 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

Overwrote 1/6/04

RMT

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: SW-7

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: NA

DATE: 11/18/03 SAMPLER: JPM

Type of pump used: NA

Sample Depth: NA

Pumping rate (ml/minute): NA

Water level before purging (nearest 0.01 ft. below reference point) NA + T/

Depth to bottom of well (obtained from well logs) NA + T/

Calculated volume of water in casing NA

Weather conditions Cold, 40°, overcast

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
8:07	—	7.20	686	13.2	2.39	30	8.56	—	—

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka 11/24/03 DOvenoorde 1/6/04

Signed Date QC'd By Date

RMT

WATER SAMPLE LOG

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/18/03	SAMPLE TIME: 10:28

WELL INFORMATION	WELL ID: MW4	WELL DIAMETER: 2"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 5.96	TOTAL DEPTH: 27	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none	☐ EQUIP. COATING ☐ PURGE WATER	

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED submersible bladder	PNEUMATIC SOURCE MP20 compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: in well
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/18/03, 7:40	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 2.39 UNITS mg/L	FINAL ORP -36 UNITS mV	FINAL TURBIDITY: 7.2
FINAL PH: 6.72	FINAL COND. 755 UNITS umhos/cm	FINAL TEMP.: 10.01
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40ml	VOA	E	☐Y ☑N					☐Y ☐N
2	500ml	amber	F	☐Y ☑N					☐Y ☐N
				☐Y ☐N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 004053 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

dVenoorde 1/6/04

took Rinsate here 9:10
+FB 10:40

R 10
D 5

15 psi

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW4

PROJECT NUMBER: 00-03868.35

WELL DIAMETER: 2"

DATE: 11-18-03

SAMPLER: JPM/SL

Type of pump used: submersible bladder

Sample Depth: 14 ft

Pumping rate (ml/minute): 480

Water level before purging (nearest 0.01 ft. below reference point) 5.96 T/

Depth to bottom of well (obtained from well logs) 27 + T/

Calculated volume of water in casing 3.43

Weather conditions overcast; cool (40s-50s); calm

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft)	Cumulative Purge Volume (gal)
948	480	6.69	752	34.0	3.29	-12	10.01	5.96	—
953		6.71	753	19.5	3.10	-18	10.00	5.96	0.16
9:58		6.71	754	16.7	2.79	-22	9.97	5.96	0.32
10:03		6.72	753	17.5	2.56	-25	9.93	5.96	0.48
10:08		6.72	753	12.0	2.50	-28	9.99	5.96	0.64
10:13		6.72	754	13.0	2.41	-30	9.96	5.96	0.80
10:18		6.71	754	7.8	2.45	-32	10.00	5.96	0.96
10:23		6.70	754	7.1	2.43	-34	10.02	5.96	1.12
10:28		6.72	755	7.2	2.39	-36	10.01	5.96	1.28

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed

11/24/03 — Date

D Renoade — QC'd By

1/6/04 — Date

RMT

WATER SAMPLE LOG

Sheet 32 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/18/03	SAMPLE TIME: 11:59

WELL INFORMATION	WELL ID: MW11	WELL DIAMETER: 2"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 4.31	TOTAL DEPTH: 157	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none ☐ EQUIP. COATING ☐ PURGE WATER		

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED submersible bladder	PNEUMATIC SOURCE MP20 compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: storage room
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/18/03, 7:40	

SAMPLE DESCRIPTION	COLOR: Clear	ODOR: none
FINAL D.O. 0.98 UNITS mg/L	FINAL ORP 57 UNITS mV	FINAL TURBIDITY: 2.4
FINAL PH: 8.01	FINAL COND. 193 UNITS umhos/cm	FINAL TEMP.: 11.20
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
2	500ml	amber	F	☐Y ☑N					☐Y ☐N
				☐Y ☐N					☐Y ☐N
				☐Y ☐N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 004055 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

dOverwarde 1/6/04

RMT

R 20
D 10
100 PSI

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW11

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 2"

DATE: 11/18/03 SAMPLER: JPM

Type of pump used: Submersible bladder

Sample Depth: 152

Pumping rate (ml/minute): 480

Water level before purging (nearest 0.01 ft. below reference point) 4.31+ T/

Depth to bottom of well (obtained from well logs) 157+ T/

Calculated volume of water in casing 24.89

Weather conditions 50, cold, cloudy

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
11:34	480	8.27	302	37.1	2.23	45	10.82	4.31	—
11:39		7.94	193	5.0	1.39	62	10.83	4.24	0.32
11:44		7.99	193	3.6	0.68	59	11.08	4.25	0.64
11:49		8.01	192	2.3	1.06	57	11.09	4.22	0.96
11:54		8.01	193	2.5	1.04	57	11.07	4.23	1.28
11:59		8.01	193	2.4	0.98	57	11.20	4.24	1.6

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed
11/24/03 — Date
[signature] — QC'd By
1/6/04 — Date

RMT

R 20
D 10
100 PSI

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW11

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 2"

DATE: 11/18/03 SAMPLER: JPM

Type of pump used: Submersible bladder

Sample Depth: 152

Pumping rate (ml/minute): 480

Water level before purging (nearest 0.01 ft. below reference point) 4.31+ T/

Depth to bottom of well (obtained from well logs) 157+ T/

Calculated volume of water in casing 24.89

Weather conditions 50, cold, cloudy

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
11:34	480	8.27	302	37.1	2.23	45	10.82	4.31	—
11:39		7.94	193	5.0	1.39	62	10.83	4.24	0.32
11:44		7.99	193	3.6	0.68	59	11.08	4.25	0.64
11:49		8.01	192	2.3	1.06	57	11.09	4.22	0.96
11:54		8.01	193	2.5	1.04	57	11.07	4.23	1.28
11:59		8.01	193	2.4	0.98	57	11.20	4.24	1.6

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed
11/24/03 — Date
[signature] — QC'd By
1/6/04 — Date

RMT

R 5
D 10
PSI 15

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW-17S

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 4"

DATE: 11-18-03 SAMPLER: JPM

Type of pump used: Submersible bladder

Sample Depth: 10 ft

Pumping rate (ml/minute): 300

Water level before purging (nearest 0.01 ft. below reference point) 7.73 T/

Depth to bottom of well (obtained from well logs) 15 + T/

Calculated volume of water in casing 4.75

Weather conditions JPM ~~Calm~~; cool (40s); overcast slight breeze

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/l) or %sat	ORP mV	Temp. (°C)	Water Level (0.01 ft)	Cumulative Purge Volume (gal)
1248	300	6.26	187	23.1	1.69	104	11.54	7.67	—
1253	|	5.85	186	25.5	1.50	114	11.51	7.67	0.2
1258	|	5.78	186	20.2	1.46	118	11.64	7.67	0.4
1303	|	5.77	185	14.1	1.44	120	11.55	"	0.6
1308	|	5.78	187	13.8	1.45	121	11.63	"	0.8
Sample 1313	|	5.72	187	13.8	1.43	121	11.59	"	1.0
~~1319~~	JPM								

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed — 11/24/03 — Date

[illegible] — QC'd By — 1/6/04 — Date

RMT

WATER SAMPLE LOG

Sheet 36 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/18/03	SAMPLE TIME: 14:54

WELL INFORMATION	WELL ID: MW15I	WELL DIAMETER: 2"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 9.80	TOTAL DEPTH: 43.92	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none ☐ EQUIP. COATING ☐ PURGE WATER		

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED submersible bladder	PNEUMATIC SOURCE MP20 compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: in well
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/18/03 13:45	

SAMPLE DESCRIPTION	COLOR: Clear	ODOR: none
FINAL D.O. 0.92 UNITS mg/L	FINAL ORP -24 UNITS mV	FINAL TURBIDITY: 15.3
FINAL PH: 7.18	FINAL COND. 293 UNITS umhos/cm	FINAL TEMP.: 13.66
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑ N					☐Y ☐N
2	500mL	amber	F	☐Y ☑ N					☐Y ☐N
				☐Y ☐ N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 00405556 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

Overwrote 1/6/04

R10
D10 20 psi

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW-15I

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 2"

DATE: 11-18-03 SAMPLER: JPM/SL

Type of pump used: Submersible Hadden

Sample Depth: 35'

Pumping rate (ml/minute): 480

Water level before purging (nearest 0.01 ft. below reference point) 9.80 + T/

Depth to bottom of well (obtained from well logs) 43.92 T/

Calculated volume of water in casing 5.56

Weather conditions Calm; cold (30s-40s); overcast

Started pumping at 13:52

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp (°C)	Water Level (0.01 ft)	Cumulative Purge Volume (gal)
1354	480	7.60	283	>440*	2.02	107	13.55	9.80	—
1359		7.12	280	235	1.19	45	13.86	9.80	0.32
1404		7.15	279	131	1.08	30	13.77	9.80	0.64
1409		7.18	279	52.6	1.03	20	13.73	9.80	0.96
1414		7.17	282	32.1	1.04	15	13.70	9.80	1.28
1419		7.18	283	26.9	1.01	9	13.70	9.80	1.6
1424		7.17	285	25.5	0.97	1	13.66	9.80	1.92
1429		7.20	288	21.3	0.94	-4	13.68	9.80	2.24
1434		7.16	288	22.6	0.91	-9	13.70	9.80	2.56
1439		7.19	290	13.6	0.94	-14	13.76	9.80	2.88
1444	480	7.19	291	15.3	0.91	-20	13.71	9.80	3.2
1449		7.16	292	14.0	0.92	-21	13.69	9.80	3.52
Sample 1454		7.18	293	15.3	0.92	-24	13.66	9.80	3.84

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed; 11/24/03 — Date; [illegible] — QC'd By; 1/6/04 — Date

* FEF = >440

RMT

WATER SAMPLE LOG

Sheet 38 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/18/03	SAMPLE TIME: 16:03

WELL INFORMATION	WELL ID: MW15S	WELL DIAMETER: 4"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 9.89	TOTAL DEPTH: 25.94	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none ☐ EQUIP. COATING ☐ PURGE WATER		

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED sub. bladder	PNEUMATIC SOURCE MP20 compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: in well
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/18/03 14:55	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 2.0 UNITS mg/L	FINAL ORP 84 UNITS mV	FINAL TURBIDITY: 15.5
FINAL PH: 6.15	FINAL COND. 340 UNITS umhos/cm	FINAL TEMP.: 15.53
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑ N					☐Y ☐N
2	500mL	amber	F	☐Y ☑ N					☐Y ☐N
				☐Y ☐ N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040556 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

cDvenoode 1/6/04

RMT

R 10
D 10

20 psi

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW15S

PROJECT NUMBER: 00-03868.35

WELL DIAMETER: 4"

DATE: 11/18/03

SAMPLER: JPM

Type of pump used: submersible

Sample Depth: 14'

Pumping rate (ml/minute): 480

Water level before purging (nearest 0.01 ft. below reference point) 9.89+ T/

Depth to bottom of well (obtained from well logs) 25.94 T/

Calculated volume of water in casing 10.48

Weather conditions 50, cloudy, cold

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
15:23	480	7.86	400	70.4	3.46	130	12.15	9.89	—
15:28		6.13	390	50.4	2.36	103	15.28	9.88	0.32
15:33		6.12	379	30.8	2.04	97	15.40	9.89	0.64
15:38		6.11	373	31.2	2.06 ~~1.84~~ SL	94	15.51	9.86	0.96
15:43		6.12	362	19.2	2.01	91	15.48	9.88	1.28
15:48		6.13	359	20.7	2.07	89	15.52	9.89	1.6
15:53		6.12	356	15.0	2.08	88	15.43	9.89	1.92
15:58		6.15	343	16.0	2.10	86	15.50	9.88	2.24
16:03		6.15	340	15.5	2.00	84	15.53	9.88	2.56

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed

11/24/03 — Date

J Overvoorde — QC'd By

1/6/04 — Date

RMT

WATER SAMPLE LOG

Sheet 40 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/18/03	SAMPLE TIME: 17:40

WELL INFORMATION	WELL ID: MW19-6	WELL DIAMETER: 2"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 8.74	TOTAL DEPTH: 20	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none	☐ EQUIP. COATING ☐ PURGE WATER	

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED sub. bladder	PNEUMATIC SOURCE MP20 compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: storage room
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/18/03 14:55	

SAMPLE DESCRIPTION	COLOR: light brown	ODOR: none
FINAL D.O. 2.37 UNITS mg/L	FINAL ORP 62 UNITS mV	FINAL TURBIDITY: 19.5
FINAL PH: 6.77	FINAL COND. 888 UNITS umhos/cm	FINAL TEMP.: 14.49
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑ N					☐Y ☐N
2	500mL	amber	F	☐Y ☑ N					☐Y ☐N
				☐Y ☐ N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040556 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

dDevenoorde 1/6/04

F-186 (REV 09MAY2002)

G:\FIELD FORMS\LANDFILL AREA WATER SAMPLE LOG.DOC 11/13/03

RMT

R 10 15psi

D 10 LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

light brown

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW19-6

PROJECT NUMBER: 00-03868.35

WELL DIAMETER: 2"

DATE: 11/18/03

SAMPLER: JPM

Type of pump used: Submersible

Sample Depth: 15

Pumping rate (ml/minute): 300

Water level before purging (nearest 0.01 ft. below reference point) 8.74+ T/

Depth to bottom of well (obtained from well logs) 20 + T/

Calculated volume of water in casing 1.84

Weather conditions 40, overcast, cold, flurries

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
16:55	300	6.73	415	197	3.81	104	12.47	8.74	—
17:00		6.75	881	153	2.72	76	14.54	8.73	0.2
17:05		6.77	882	107	2.33	69	14.48	8.73	0.4
17:10		6.75	882	66.8	2.30	64	14.49	8.74	0.6
17:15		6.76	883	52.8	2.32	63	14.41	8.74	0.8
17:20		6.75	885	74.5	2.29	62	14.51	8.74	1.0
17:25		6.76	885	91.6	2.36	63	14.38	8.73	1.2
17:30		6.76	886	20.8	2.26	62	14.45	8.73	1.4
17:35		6.76	887	19.6	2.31	63	14.48	8.72	1.6
17:40		6.77	888	19.5	2.37	62	14.49	8.71	1.8

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed

11/24/03 — Date

Overvoorde — QC'd By

1/6/04 — Date

RMT

WATER SAMPLE LOG

Sheet 42 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/19/03	SAMPLE TIME: 8:24

WELL INFORMATION	WELL ID: MW19-9D	WELL DIAMETER: 2"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 8.36	TOTAL DEPTH: 35	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none	☐ EQUIP. COATING ☐ PURGE WATER	

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED sub. bladder	PNEUMATIC SOURCE MP20 compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: Storage room
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/19/03 7:40	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 3.34 UNITS mg/L	FINAL ORP 29 UNITS mV	FINAL TURBIDITY: 233
FINAL PH: 6.97	FINAL COND. 467 UNITS umhos/cm	FINAL TEMP.: 14.88
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO_3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑N					☐Y ☐N
2	500mL	amber	F	☐Y ☑N					☐Y ☐N
				☐Y ☐N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040556 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

Overnoode 1/6/04

RMT

R10 D5 17.5 psi Dupe 02

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW-9-9D

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 2"

DATE: 11-19-03 SAMPLER: JPM/SL

Type of pump used: submersible bladder

Sample Depth: 30'

Pumping rate (ml/minute): 360

Water level before purging (nearest 0.01 ft. below reference point) 8.36 T/

Depth to bottom of well (obtained from well logs) 35 + T/

Calculated volume of water in casing 4.34

Weather conditions overcast; raining off & on; mild (50s); calm

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp (°C)	Water Level (0.01 ft)	Cumulative Purge Volume (gal)
7:59	360	6.88	475	259	3.10	23	14.66	8.36	—
8:04		6.93	473	261 ~~313~~ SL	3.25	23	14.48	8.36	0.12
8:09		6.94	472	268	3.29	27	14.53	8.36	0.24
8:14		6.95	470	247	3.26	28	14.53	8.36	0.48
8:19		6.95	469	237	3.24	28	14.57	8.36	0.60
8:24		6.97	467	233	3.34	29	14.55	8.36	0.72

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed; 11/24/03 — Date; Overcarde — QC'd By; 1/6/04 — Date

RMT

WATER SAMPLE LOG

Sheet 44 of 68

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton NJ	SAMPLE DATE: 11/19/03	SAMPLE TIME: 1010

WELL INFORMATION	WELL ID: MW19-8	WELL DIAMETER: 2"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 8.40	TOTAL DEPTH: 20	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none ☐ EQUIP. COATING ☐ PURGE WATER		

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED sub bladder	PNEUMATIC SOURCE MP20 compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: Storage room
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/19/03 7:40	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 5.62 UNITS mg/L	FINAL ORP -35 UNITS mV	FINAL TURBIDITY: 22
FINAL PH: 6.91	FINAL COND. 1660 UNITS umhos/cm	FINAL TEMP.: 16.16
COMMENTS:		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑N					☐Y ☐N
2	500mL	amber	F	☐Y ☑N					☐Y ☐N
				☐Y ☐N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040554 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

dOverwarde 1/6/04

R 10
D 10 15 psi

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW19-8

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 2

DATE: 11/19/03 SAMPLER: JPM

Type of pump used: submersible bladder

Sample Depth: 15.5'

Pumping rate (ml/minute): 480

Water level before purging (nearest 0.01 ft. below reference point) 8.40+ T/

Depth to bottom of well (obtained from well logs) 20 + T/

Calculated volume of water in casing 1.89

Weather conditions cloudy, rainy, 50°

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/l) or %	ORP mV	Temp (°C)	Water Level (0.01 ft)	Cumulative Purge Volume (gal)
9:20	480	6.88	1650	151	6.30 ~~1.64~~ SL	22	16.25	8.40	—
9:25		6.88	1710	81.4	5.96	-5	16.32	8.40	0.32
9:30		6.90	1730	37.9	3.84	-20	16.24	8.40	0.64
9:35		6.90	1730	26.3	2.95	-25	16.23	8.40	0.96
9:40		6.91	1730	25.9	2.25	-29	16.18	8.39	1.28
9:45		6.91	1720	17.6	1.71	-31	16.20	8.41	1.6
9:50		6.91	1700	15.8	6.25	-32	16.31	8.40	1.92
9:55		6.91	1690	16.3	4.88	-31	16.21	8.40	2.24
10:00		6.91	1670	23.4	5.71	-32	16.13	8.41	2.56
10:05		6.92	1660	22.2	5.68	-33	16.11	8.40	2.88
10:10		6.91	1660	22.0	5.62	-35	16.16	8.40	3.2

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed
11/24/03 — Date
JOverwoode — QC'd By
1/6/04 — Date

RMT

WATER SAMPLE LOG

Sheet 46 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/19/03	SAMPLE TIME: 11:21

WELL INFORMATION	WELL ID: MW 19-7	WELL DIAMETER: 2"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 7.93	TOTAL DEPTH: 20	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none ☐ EQUIP. COATING ☐ PURGE WATER		

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED sub. pump	PNEUMATIC SOURCE MP20 compressor	
BLADDER TYPE: PE (new) / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: Storage room
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/19/03 7:40	

SAMPLE DESCRIPTION	COLOR: Clear	ODOR: none
FINAL D.O. 4.07 UNITS mg/L	FINAL ORP -32 UNITS mV	FINAL TURBIDITY: 14.8
FINAL PH: 6.90	FINAL COND. 1040 UNITS umhos/cm	FINAL TEMP.: 14.63
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑N					☐Y ☐N
2	500mL	amber	F	☐Y ☑N					☐Y ☐N
				☐Y ☐N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040554 DATE SHIPPED: 11/20/03 METHOD: courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

Overwrote 1/6/04

RMT

R 10
D 10 15 psi

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW 19-7

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 2"

DATE: 11/19/03 SAMPLER:

Type of pump used: Submersible bladder

Sample Depth: 15

Pumping rate (ml/minute): 480

Water level before purging (nearest 0.01 ft. below reference point) 7.93+ T/

Depth to bottom of well (obtained from well logs) 20 + T/

Calculated volume of water in casing 1.97

Weather conditions raining, 50s, cloudy

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
10:51	480	6.78	995	10.3	5.73	42	14.71	7.93	—
10:56		6.82	1051	20.0	3.98	18	14.60	7.95	0.32
11:01		6.83	1061	19.4	3.95	-6	14.65	7.94	0.64
11:06		6.84	1062	14.6	3.83	-13	14.63	7.95	0.96
11:11		6.87	1052	14.2	3.91	-24	14.60	7.95	1.28
11:16		6.88	1041	13.6	3.96	-29	14.61	7.95	1.6
11:21		6.90	1040	14.8	4.07	-32	14.63	7.95	1.92

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka 11/24/03 Overcorde 1/6/04

Signed Date QC'd By Date

RMT

WATER SAMPLE LOG

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/19/03	SAMPLE TIME: 14:03

WELL INFORMATION	WELL ID: MW 19-3	WELL DIAMETER: 4"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 9.41	TOTAL DEPTH: 16	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none ☐ EQUIP. COATING ☐ PURGE WATER		

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED sub. bladder	PNEUMATIC SOURCE MP20 compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: storage room
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/19/03 13:00	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 5.25 UNITS mg/L	FINAL ORP 94 UNITS mV	FINAL TURBIDITY: 16.6
FINAL PH: 6.67	FINAL COND. 1250 UNITS umhos/cm	FINAL TEMP.: 16.25
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑ N					☐Y ☐N
2	500mL	amber	F	☐Y ☑ N					☐Y ☐N
				☐Y ☐ N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040551 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

Overnode 1/6/04

RMT

R10 D10 10psi

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW 19-3

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 4"

DATE: 11/19/03 SAMPLER:

Type of pump used: Submersible bladder

Sample Depth: 11'

Pumping rate (ml/minute): 300

Water level before purging (nearest 0.01 ft. below reference point) 9.41 + T/

Depth to bottom of well (obtained from well logs) 16 + T/

Calculated volume of water in casing 4.3

Weather conditions Raining, 50°, overcast

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
13:18	300	6.62	1180	106	4.18	131	16.22	9.41	—
13:23		6.64	1194	92.4	5.17	108	16.12	9.41	0.2
13:28		6.65	1207	77.1	5.48	102	16.12	9.41	0.4
13:33		6.67	1223	51.6	5.56	98	16.14	9.41	0.6
13:38		6.67	1233	43.6	5.24	97	16.08	9.41	0.8
13:43		6.68	1245	26.8	5.20	96	16.17	9.41	1.0
13:48		6.70	1235	20.9	5.15	95	16.12	9.41	1.2
13:53		6.70	1240	16.3	5.20	95	16.17	9.41	1.4
13:58		6.68	1237	15.4	5.22	94	16.20	9.41	1.6
14:03		6.67	1250	16.6	5.25	94	16.25	9.41	1.8

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed

11/24/03 — Date

Overwoorde — QC'd By

1/6/04 — Date

RMT

WATER SAMPLE LOG

Sheet 50 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/19/03	SAMPLE TIME: 15:45

WELL INFORMATION	WELL ID: MW19-4	WELL DIAMETER: 4"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 8.07	TOTAL DEPTH: 16	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none	☐ EQUIP. COATING ☐ PURGE WATER	

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED sub. bladder	PNEUMATIC SOURCE: MP20 Compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: Storage room
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/19/03 13:00	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 5.79 UNITS mg/L	FINAL ORP 100 UNITS mV	FINAL TURBIDITY: 63.6
FINAL PH: 6.74	FINAL COND. 864 UNITS umhos/cm	FINAL TEMP.: 16.50
COMMENTS: None		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑N					☐Y ☐N
2	500mL	amber	F	☐Y ☑N					☐Y ☐N
				☐Y ☐N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040554 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

dOverwade 1/6/04

RMT

K10
D10 15psi

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW19-4

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 4"

DATE: 11/19/03 SAMPLER: JPM

Type of pump used: submersible bladder

Sample Depth: 11'

Pumping rate (ml/minute): 420

Water level before purging (nearest 0.01 ft. below reference point) 8.07 + T/

Depth to bottom of well (obtained from well logs) 16 + T/

Calculated volume of water in casing 5.18

Weather conditions 50°, raining, cloudy

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
14:40	420	6.70	890	373	4.11	79	16.57	8.07	—
14:45		6.69	891	335	3.39	75	16.49	8.07	0.28
14:50		6.71	884	261	3.36	77	16.48	8.05	0.56
14:55		6.72	877	192	4.31	81	16.49	8.05	0.84
15:00		6.73	876	163	4.49	84	16.49	8.07	1.12
15:05		6.74	874	157	4.48	87	16.50	8.06	1.4
15:10		6.73	870	142	5.49	90	16.57	8.06	1.68
15:15		6.74	866	114	5.51	92	16.50	8.06	1.96
15:20		6.73	867	104	5.54	94	16.49	8.05	2.24
15:25		6.77	866	87.7	5.54	96	16.50	8.05	2.52
15:30		6.73	864	78.1	5.62	97	16.48	8.05	2.8
15:35		6.72	863	62.3	5.61	98	16.50	8.05	3.08
15:40		6.73	861	68.1	5.70	99	16.50	8.06	3.36
15:45		6.74	864	63.6	5.79	100	16.50	8.06	3.64

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed
11/24/03 — Date
dOrenoode — QC'd By
1/6/04 — Date

RMT

WATER SAMPLE LOG

Sheet 52 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/19/03	SAMPLE TIME: 16:57

WELL INFORMATION	WELL ID: MW19-1	WELL DIAMETER: 4"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 8.30	TOTAL DEPTH: 17	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none	☐ EQUIP. COATING ☐ PURGE WATER	

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED sub. bladder	PNEUMATIC SOURCE MP20 compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: Storage room
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/19/03 16:00	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 2.86 UNITS mg/L	FINAL ORP 86 UNITS mV	FINAL TURBIDITY: 42.4
FINAL PH: 6.47	FINAL COND. 683 UNITS umhos/cm	FINAL TEMP.: 16.17
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑N					☐Y ☐N
2	500mL	amber	F	☐Y ☑N					☐Y ☐N
				☐Y ☐N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040554 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

Overnode 1/6/04

R 10
D 5
15 PSI

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW 19-1

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 4"

DATE: 11/19/03 SAMPLER: JPM

Type of pump used: Submersible bladder

Sample Depth: 11'

Pumping rate (ml/minute): 480

Water level before purging (nearest 0.01 ft. below reference point) 8.30+ T/

Depth to bottom of well (obtained from well logs) 17 + T/

Calculated volume of water in casing 5.68

Weather conditions heavy rain, 55°, windy

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
16:22	480	6.38	685	218	2.87	138	16.55	8.30	—
16:27		6.42	685	150	2.83	108	16.33	8.30	0.16
16:32		6.44	686	132	2.87	99	16.27	8.30	0.32
16:37		6.46	685	63.7	2.86	93	16.25	8.30	0.48
16:42		6.48	688	62.2	2.92	93	16.25	8.30	0.64
16:47		6.49	685	43.9	2.95	89	16.22	8.30	0.80
16:52		6.47	683	41.8	2.89	87	16.21	8.30	0.96
16:57		6.47	683	42.4	2.86	86	16.17	8.30	1.12

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka — Signed — 11/24/03 Date

D Overcarde — QC'd By — 1/6/04 Date

RMT

WATER SAMPLE LOG

Sheet 54 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/19/03	SAMPLE TIME: 18:10

WELL INFORMATION	WELL ID: MW 19-2	WELL DIAMETER: 4"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 9.21	TOTAL DEPTH: 16	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none	☐ EQUIP. COATING ☐ PURGE WATER	

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED sub. bladder	PNEUMATIC SOURCE MP20 compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: Storage room
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/19/03 17:09	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 1.92 UNITS mg/L	FINAL ORP 53 UNITS mV	FINAL TURBIDITY: 21.2
FINAL PH: 6.38	FINAL COND. 1123 UNITS umhos/cm	FINAL TEMP.: 15.89
COMMENTS: none		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑ N					☐Y ☐N
2	500mL	amber	F	☐Y ☑ N					☐Y ☐N
				☐Y ☐ N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040554 DATE SHIPPED: 11/20/03 METHOD: courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

dOvenoode 1/6/04

RMT

R 10 12.5 psi
D 5

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW19-2

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 4"

DATE: 11/19/03 SAMPLER: JPM

Type of pump used: Submersible bladder

Sample Depth: 11'

Pumping rate (ml/minute): 240

Water level before purging (nearest 0.01 ft. below reference point) 9.21 + T/

Depth to bottom of well (obtained from well logs) 16 + T/

Calculated volume of water in casing 4.43

Weather conditions heavy rain, windy, 50°

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
17:45	240	6.31	1121	41.8	2.28	55	16.09	9.21	—
17:50		6.34	1121	37.6	2.14	53	15.91	9.21	0.08
17:55		6.36	1121	32.4	1.92	53	15.87	9.21	0.16
18:00		6.36	1121	22.0	1.93	53	15.83	9.21	0.24
18:05		6.36	1121	23.0	1.88	53	15.93	9.21	0.32
18:10		6.38	1123	21.2	1.92	53	15.89	9.21	0.40

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka 11/24/03 J Overvoorde 1/6/04

Signed Date QC'd By Date

RMT

WATER SAMPLE LOG

Sheet 56 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/20/03	SAMPLE TIME: 9:04

WELL INFORMATION	WELL ID: MW19-5	WELL DIAMETER: 2"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: ~~12.05~~ 7.61 ~~30~~ 1/6/04	TOTAL DEPTH: 16	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: none	☐ EQUIP. COATING ☐ PURGE WATER	

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED sub bladder	PNEUMATIC SOURCE MP20 compressor	
BLADDER TYPE: PE	(new / used)	
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: storage room
WATER QUALITY METER TYPE: MP20 flowcell	CALIBRATION DATE / TIME 11/20/03 7:50	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 1.84 UNITS mg/L	FINAL ORP 155 UNITS mV	FINAL TURBIDITY: * none
FINAL PH: 6.73	FINAL COND. 200 UNITS umhos/cm	FINAL TEMP.: 12.28
COMMENTS: * turbidity meth would not calibrate - will send in for service		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑ N					☐Y ☐N
2	500mL	amber	F	☐Y ☑ N					☐Y ☐N
				☐Y ☐ N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 0040554 DATE SHIPPED: 11/20/03 METHOD: Courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

JOverwoode 1/6/04

RMT R 10 D 5 PSI 15

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW19-5

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 2"

DATE: 11-20-03 SAMPLER: JPM/SL

Type of pump used: submersible bladder

Sample Depth: 11'

Pumping rate (ml/minute): 300

Water level before purging (nearest 0.01 ft. below reference point) 7.61 + T/

Depth to bottom of well (obtained from well logs) 16 + T/

Calculated volume of water in casing 1.37

Weather conditions cool (40s); windy; overcast

started pumping at 8:00

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
8:04	300	6.69	202	moderate*	3.00	123	12.05	7.64	—
8:09		6.60	198	moderate*	2.44	128	12.21	7.64	0.1
8:14		6.68	198	moderate*	2.51	134	12.31	7.64	0.2
8:19		6.64	199	slight*	2.41	137	12.51	7.64	0.3
8:24		6.69	198	slight*	2.20	140	12.39	7.64	0.4
8:29		6.71	200	slight*	2.13	142	12.43	7.64	0.5
8:34		6.73	200	none*	1.86	146	12.37	7.64	0.6
8:39		6.71	199	none*	2.05	147	12.34	7.64	0.7
8:44		6.74	199	none*	1.86	148	12.31	7.64	0.8
8:49		6.72	200	none*	1.84	154	12.48	7.64	0.9
8:54		6.73	200	none*	1.84	155	12.41	7.64	1.0
9:04		6.73	200	none*	1.84	155	12.28	7.64	1.1

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka 11/24/03 J Overwade 1/6/04

Signed Date QC'd By Date

* turbidity meter not working; waiting to talk to HACH; used visual assessment of turbidity

RMT

WATER SAMPLE LOG

Sheet 58 of 62

PROJECT INFORMATION	PROJECT NAME: L.E. Carpenter, Wharton, NJ	EVENT NAME: LANDFILL AREA 4Q03 Groundwater Sampling
SAMPLER NAME 1: JPM	SAMPLER NAME 2: SSL	PROJECT NO: 00-03868.35
SITE LOCATION: Wharton, NJ	SAMPLE DATE: 11/20/03	SAMPLE TIME: 10:36

WELL INFORMATION	WELL ID: MW19	WELL DIAMETER: 4"
WELL MATERIAL: SS	WELL CONDITIONS: good	
STATIC WATER LEVEL: 7.78	TOTAL DEPTH: 17	
FREE PRODUCT: ☐ SHEEN ☐ MEAS. THICKNESS: None	☐ EQUIP. COATING ☐ PURGE WATER	

SAMPLE METHOD	PURGE METHOD: low flow (use purge form)	
SAMPLING PUMP: QED sub. bladder	PNEUMATIC SOURCE MP20 compressor	
BLADDER TYPE: PE (new / used)		
TUBING TYPE: PE	TUBING CONDITION: good	HOW STORED: Storage room
WATER QUALITY METER TYPE: MP20 flow cell	CALIBRATION DATE / TIME 11/20/03 7:50	

SAMPLE DESCRIPTION	COLOR: clear	ODOR: none
FINAL D.O. 4.27 UNITS mg/L	FINAL ORP -59 UNITS mV	FINAL TURBIDITY: * none
FINAL PH: 6.80	FINAL COND. 689 UNITS umhos/cm	FINAL TEMP.: 14.38
COMMENTS: * turbidity meter not calibrating, will send in for service.		

SAMPLE FILTRATION	FILTER TYPE / SIZE / DESCRIPTION: NA
FILTER METALS SAMPLE ONLY	COLOR AFTER FILTRATION:

BOTTLES FILLED

*PRESERVATIVE CODES: A - None B - HNO3 C - H_2SO_4 D - NaOH E - HCL F- _____

Number	Size	Type	Preservative*	Filtered	Number	Size	Type	Preservative*	Filtered
3	40mL	VOA	E	☐Y ☑N					☐Y ☐N
2	500mL	amber	F	☐Y ☑N					☐Y ☐N
				☐Y ☐N					☐Y ☐N

CHAIN-OF-CUSTODY NUMBER: 004054 DATE SHIPPED: 11/20/03 METHOD: courier

AIRBILL NUMBER: NA SIGNED: Sarah Lapka DATE: 11/24/03

Overwrote 1/6/04

RMT

R 10 15psi
D 5

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: L.E. CARPENTER – WHARTON, NJ

WELL NUMBER: MW 19

PROJECT NUMBER: 00-03868.35 WELL DIAMETER: 4"

DATE: 11/20/03 SAMPLER: JPM

Type of pump used: Submersible bladder

Sample Depth: 12'

Pumping rate (ml/minute): 360

Water level before purging (nearest 0.01 ft. below reference point) 7.78 + T/

Depth to bottom of well (obtained from well logs) 17 + T/

Calculated volume of water in casing 1.50

Weather conditions 50°, windy, partly sunny

Time	Purge Rate (ml/min)	pH (SU)	Conductivity (umhos/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
9:36	360	6.60	667	*slight	1.71	17	12.58	7.78	—
9:41		6.73	677	*slight	2.75	-34	14.24	7.90	0.12
9:46		6.72	665	*slight	2.82	-44	14.20	7.92	0.24
9:51		6.74	646	*none	4.26	-44	14.22	7.92	0.36
9:56		6.75	661	*none	4.11	-48	14.12	7.91	0.48
10:01		6.75	666	*none	4.65	-49	14.21	7.92	0.60
10:06		6.76	672	*none	4.47	-54	14.27	7.92	0.72
10:11		6.76	676	*none	4.53	-56	14.24	7.92	0.84
10:16		6.78	688	*none	4.64	-54	14.32	7.92	0.96
10:21		6.79	687	*none	4.54	-51	14.28	7.92	1.08
10:26		6.80	696	*none	4.29	-59	14.35	7.92	1.20
10:31		6.81	692	*none	4.36	-61	14.28	7.92	1.32
10:36		6.80	689	*none	4.27	-59	14.38	7.92	1.44

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%; DO ±10%; ORP ±20 mV

Sarah Lapka 11/24/03 [signature] 1/6/04

Signed Date QC'd By Date

* meter will not calibrate

Analysis Request / Environmental Services Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only

Acct. # _____ Group# _____ Sample # _____

COC # 0040554

Please print. Instructions on reverse side correspond with circled numbers.

(1)

Client: [illegible] Acct. #: _____

Project Name/#: [illegible] PWSID #: _____

Project Manager: [illegible] P.O.#: _____

Sampler: JTM/SSL Quote #: _____

Name of state where samples were collected: NJ

For Lab Use Only
FSC: _____
SCR #: _____

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water (Check if Applicable: ☐ Potable ☐ NPDES)	Other	Total # of Containers									Remarks (Temperature of samples upon receipt if requested)
[illegible]			✓			✓		5	✓	✓							
[illegible]	[illegible]	[illegible]	✓			✓			✓	✓							
MW19-7		11:21	✓			✓		5	✓	✓							
[illegible]		[illegible]	✓			✓		5	✓	✓							
MW11-4		[illegible]	✓			✓			✓	✓							
[illegible]		[illegible]	✓			✓			✓	✓							
MW19-2		[illegible]	✓			✓			✓	✓							
[illegible]		[illegible]	✓			✓			✓	✓							
[illegible]		[illegible]	✓			✓			✓	✓							
Trip Blank			✓			✓		4	✓	✓							only analyze 3 VOAs

(7) **Turnaround Time Requested** (TAT) (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed: _____
Rush results requested by (please circle): Phone Fax E-mail
Phone #: _____ Fax #: _____
E-mail address: _____

(8) **Data Package Options** (please circle if required)
QC Summary Type VI (Raw Data)
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP)

SDG Complete? Yes No

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[illegible]	11/20/03	12:[illegible]	[illegible]	11/20/03	12:[illegible]
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Analysis Request / Environmental Services Chain of Custody

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Acct. #_____ Group#_____ Sample # _____

COC # 0040553

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: [illegible] Acct. #: _____
Project Name/#: [illegible] PWSID #: _____
Project Manager: [illegible] P.O.#: _____
Sampler: [illegible]L/JPM Quote #: _____
Name of state where samples were collected: NJ

For Lab Use Only
FSC: _____
SCR #: _____

(2) Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	(4) Matrix: Soil	Water (☐ Potable ☐ NPDES Applicable)	Other	Total # of Containers	(5) Analyses Requested	Remarks	(6) Temperature of samples upon receipt (if required)
MW21	[illegible]	[illegible]	✓					[illegible]			
MW25	[illegible]	[illegible]	✓					[illegible]			
MW22	[illegible]	[illegible]	✓					4			
MW14J	[illegible]	[illegible]	✓					[illegible]			
MW14S	[illegible]	[illegible]	✓					[illegible]			
[illegible]	[illegible]	[illegible]	✓					[illegible]			
MW4	[illegible]	[illegible]	✓					[illegible]			
MW1	[illegible]	[illegible]	✓					[illegible]			
[illegible]	[illegible]	[illegible]						[illegible]			
[illegible]											

(7) **Turnaround Time Requested** (TAT) (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed: _____
Rush results requested by (please circle): Phone Fax E-mail
Phone #: _____ Fax #: _____
E-mail address: _____

(8) **Data Package Options** (please circle if required)
QC Summary Type VI (Raw Data)
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP)

SDG Complete? Yes No

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[illegible]	[illegible]	12:30	[illegible]	[illegible]	12:2[illegible]
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Analysis Request Environmental Services Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only

Acct. #_____ Group#_____ Sample #_____

COC # 0040556

Please print. Instructions on reverse side correspond with circled numbers.

(1)

Client: _____ Acct. #: _____

Project Name/#: _____ PWSID #: _____

Project Manager: _____ P.O.#: _____

Sampler: _____ Quote #: _____

Name of state where samples were collected: NJ

For Lab Use Only
FSC:
SCR #: 1184196

(2) Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	Matrix (4): Soil	Water (Potable / NPDES)	Other	Total # of Containers	(5) Analyses Requested									Remarks	(6) Temperature of samples upon receipt (if requested)
[illegible]	[illegible]	[illegible]	✓			✓		[illegible]	✓	✓									
[illegible]		[illegible]	✓			✓		[illegible]	✓	✓									
[illegible]		[illegible]	✓			✓		[illegible]	✓	✓									
[illegible] MSD		[illegible]	✓			✓		[illegible]	✓	✓									
[illegible]		[illegible]	✓			✓		[illegible]		✓									
[illegible]			✓			✓		[illegible]	✓	✓									
[illegible]		[illegible]	✓			✓		[illegible]	✓	✓									
[illegible]		[illegible]	✓			✓		[illegible]	✓	✓									
[illegible]		[illegible]	✓			✓		[illegible]	✓	✓									
[illegible]		[illegible]	✓			✓		[illegible]	✓	✓									

(7) **Turnaround Time Requested** (TAT) (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed: _____
Rush results requested by (please circle): Phone Fax E-mail
Phone #: _____ Fax #: _____
E-mail address: _____

(8) **Data Package Options** (please circle if required)
QC Summary — Type VI (Raw Data)
Type I (Tier I) — GLP
Type II (Tier II) — Other
Type III (NJ Red. Del.)
Type IV (CLP)

SDG Complete? Yes No

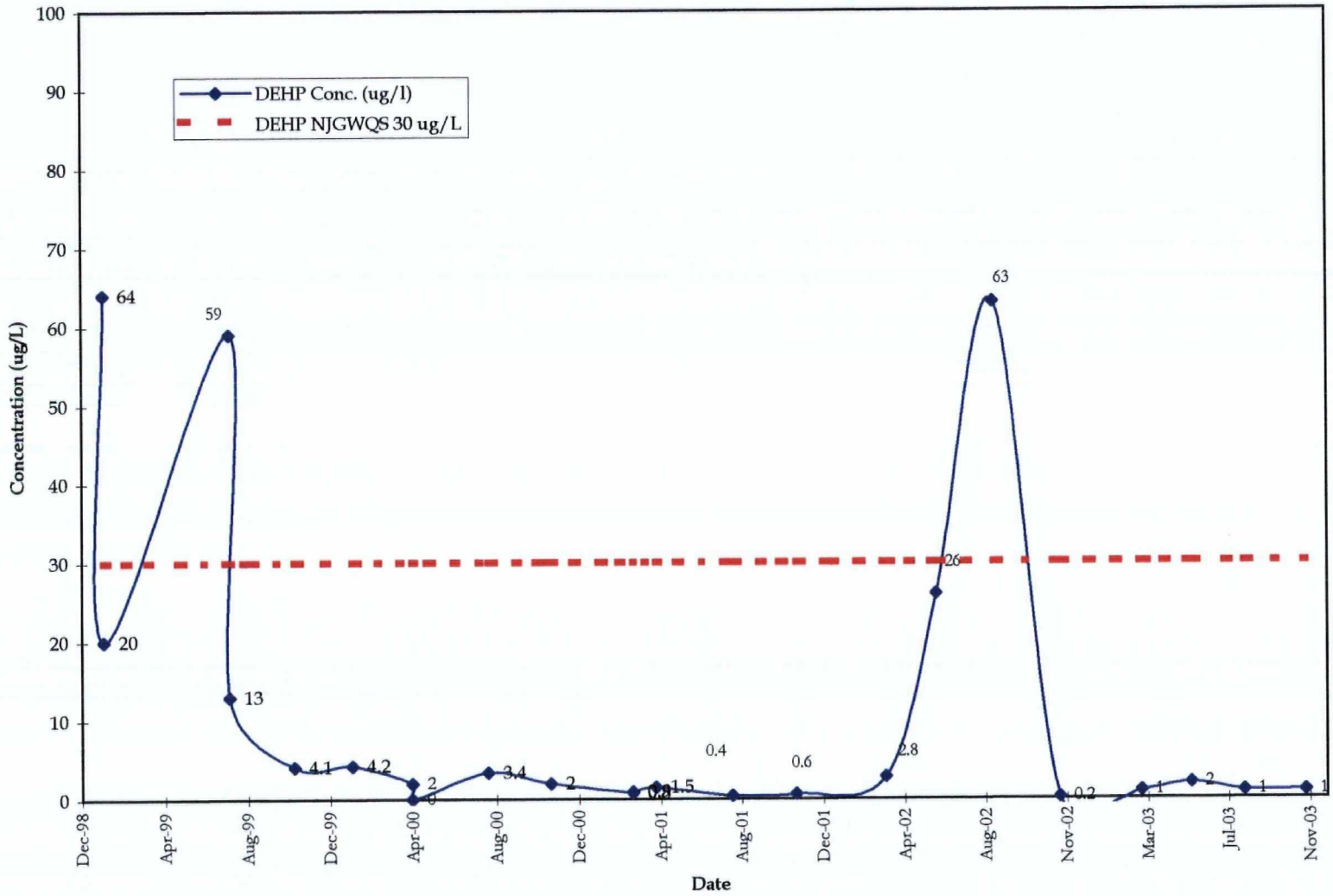
Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

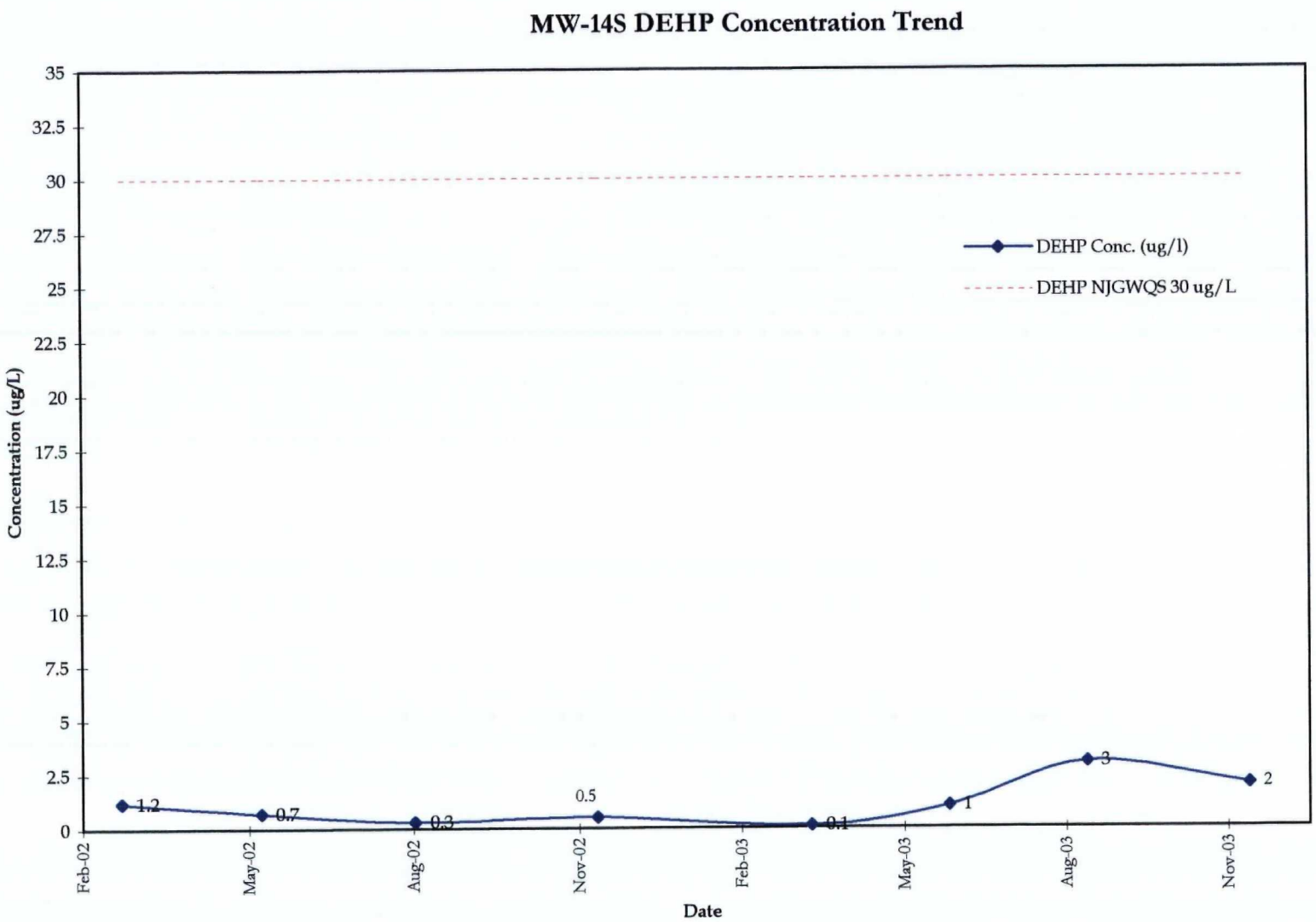
(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[illegible]	11/14/03	1509	[illegible]	[illegible]	[illegible]
[illegible]	11/20/03	[illegible]	[illegible]	11/20/03	12:20

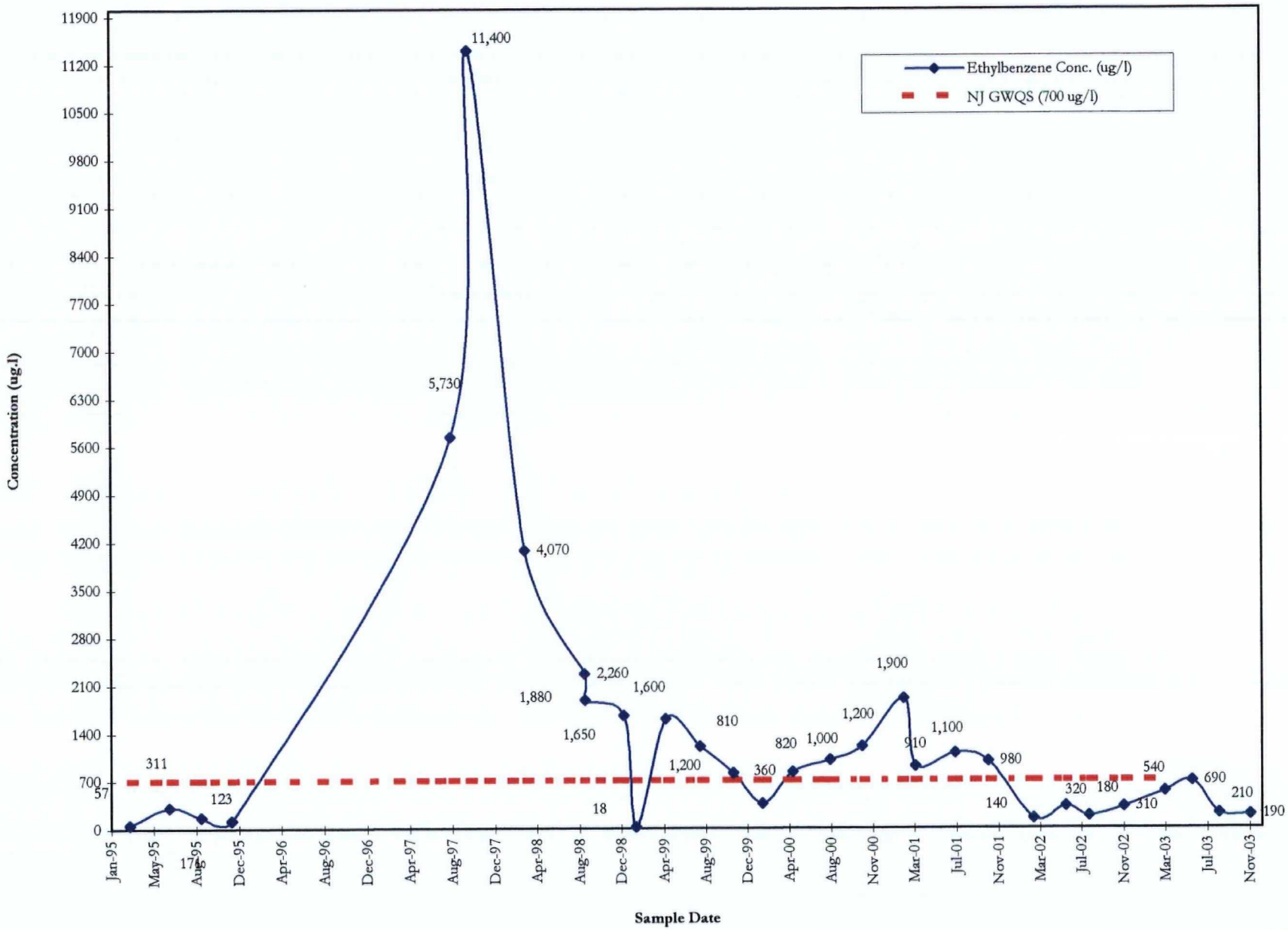
Appendix D
Groundwater Concentration Trend Analysis

MW-11DR DEHP Concentration Trend



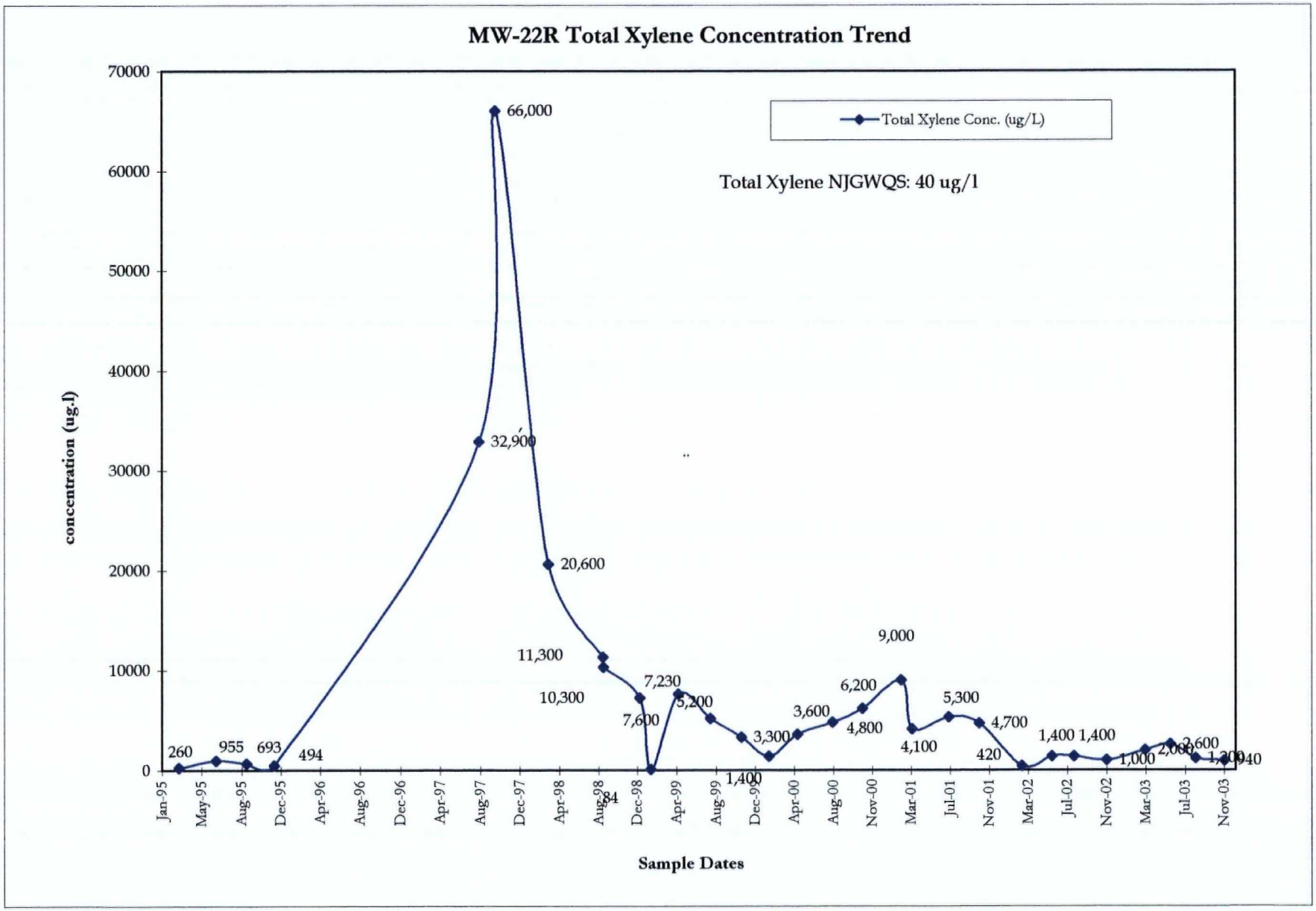

MW-14S DEHP Concentration Trend
Concentration (ug/L)
35
32.5
30
27.5
25
22.5
20
17.5
15
12.5
10
7.5
5
2.5
0
DEHP Conc. (ug/l)
DEHP NJGWQS 30 ug/L
1.2
0.7
0.3
0.5
0.1
1
3
2
Feb-02
May-02
Aug-02
Nov-02
Feb-03
May-03
Aug-03
Nov-03
Date

MW-22R Ethylebenzene Concentraion Trend

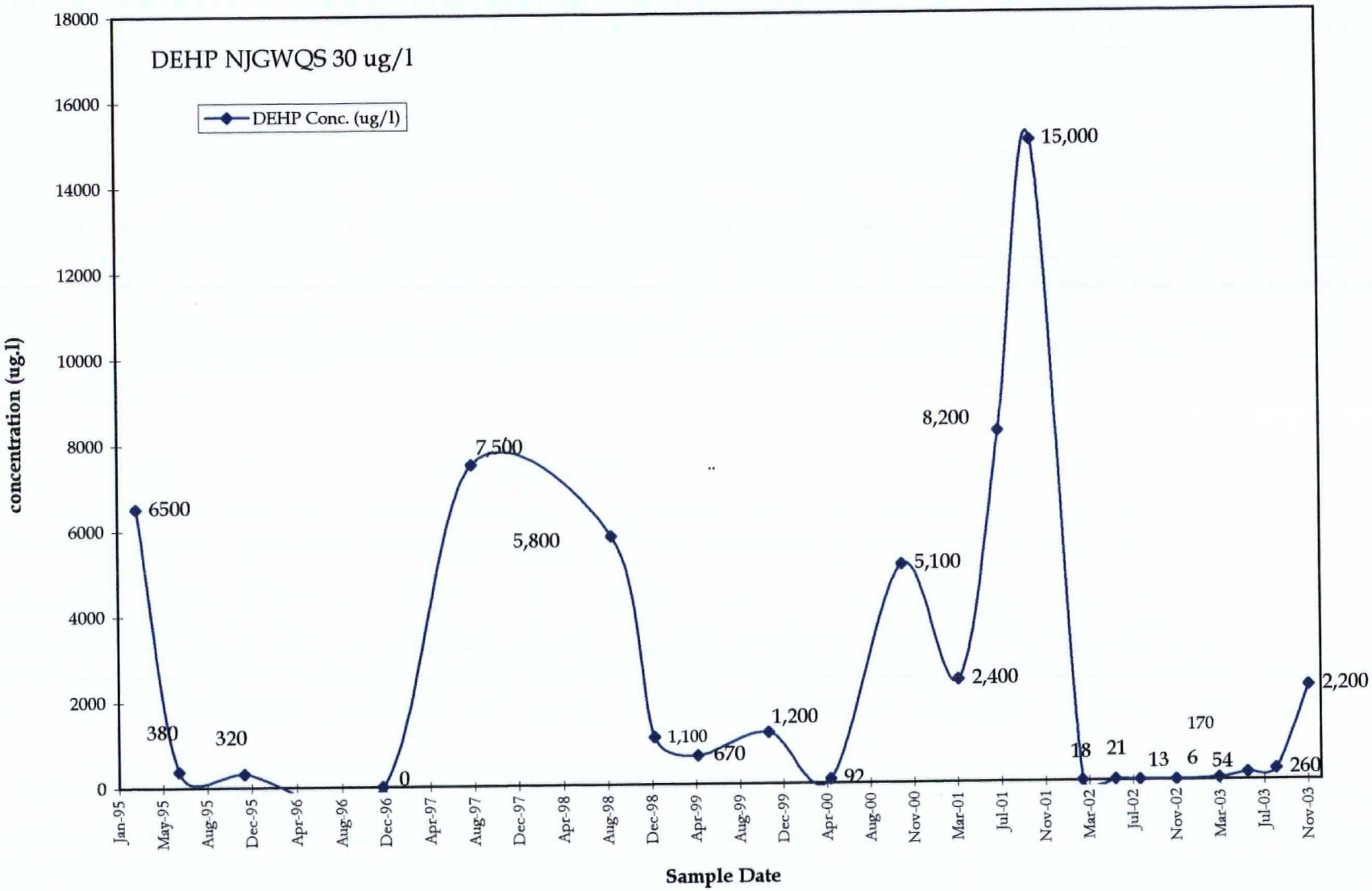


2/3/200411:17 AM

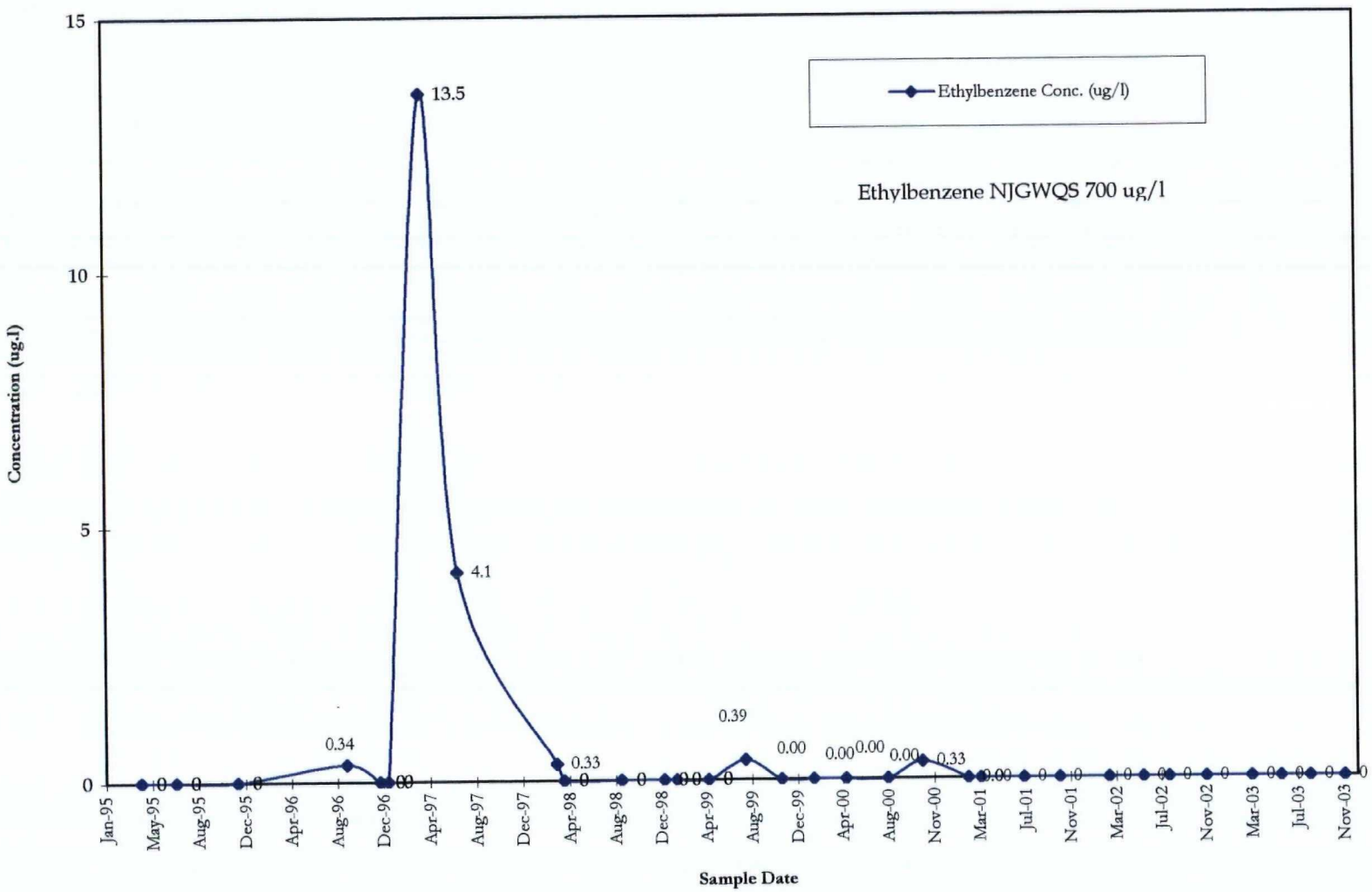
T000386817-005.DOCMW-22(R) Trend Charts Chart 3



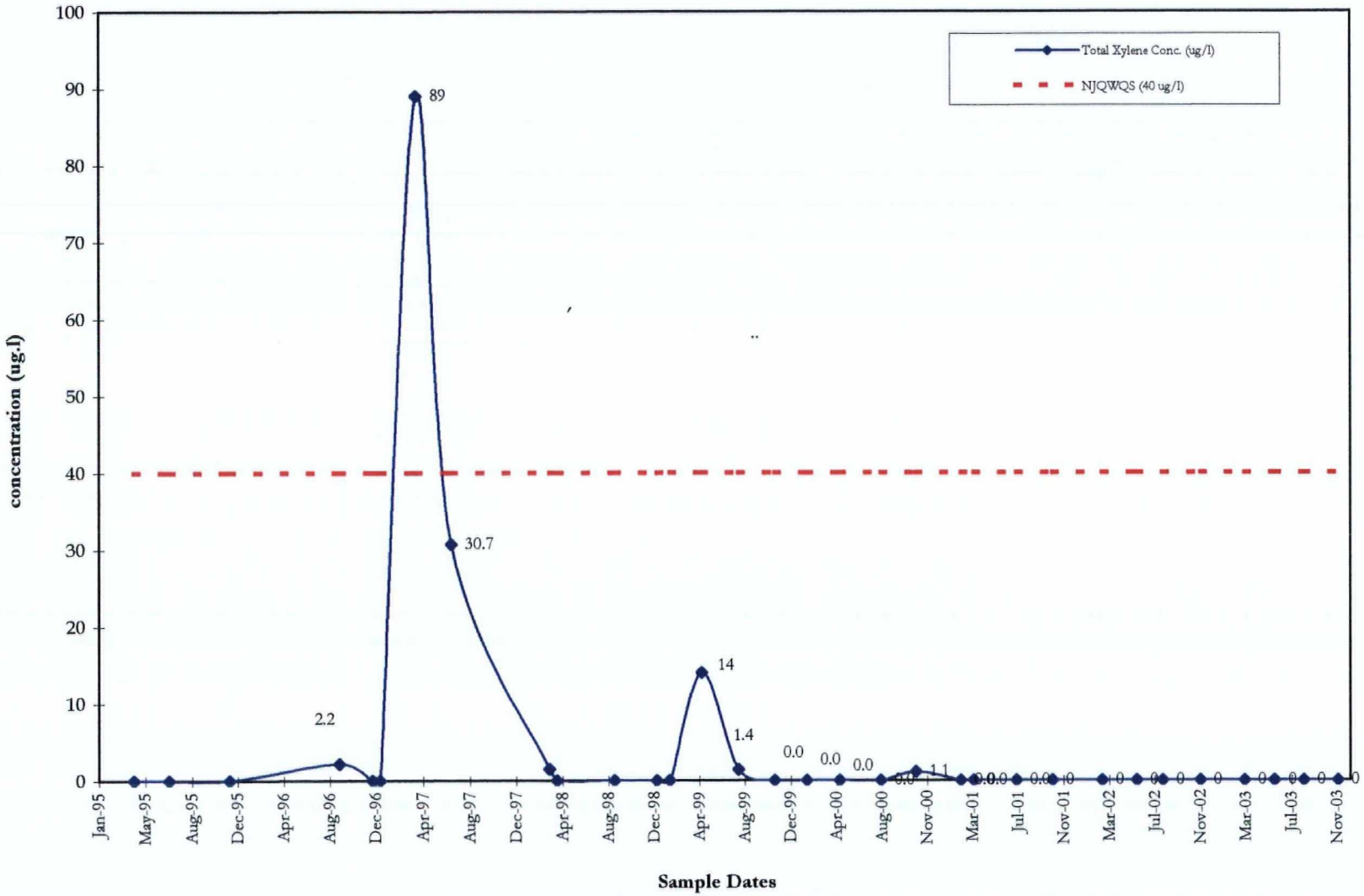
2/3/2004 11:17 AM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager


MW-22R DEHP Concentration Trend
DEHP NJGWQS 30 ug/l
DEHP Conc. (ug/l)
concentration (ug.l)
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
6500
380
320
0
7,500
5,800
1,100
670
1,200
92
5,100
8,200
2,400
15,000
18
21
13
6
170
54
260
2,200
Jan-95
May-95
Aug-95
Dec-95
Apr-96
Aug-96
Dec-96
Apr-97
Aug-97
Dec-97
Apr-98
Aug-98
Dec-98
Apr-99
Aug-99
Dec-99
Apr-00
Aug-00
Nov-00
Mar-01
Jul-01
Nov-01
Mar-02
Jul-02
Nov-02
Mar-03
Jul-03
Nov-03
Sample Date

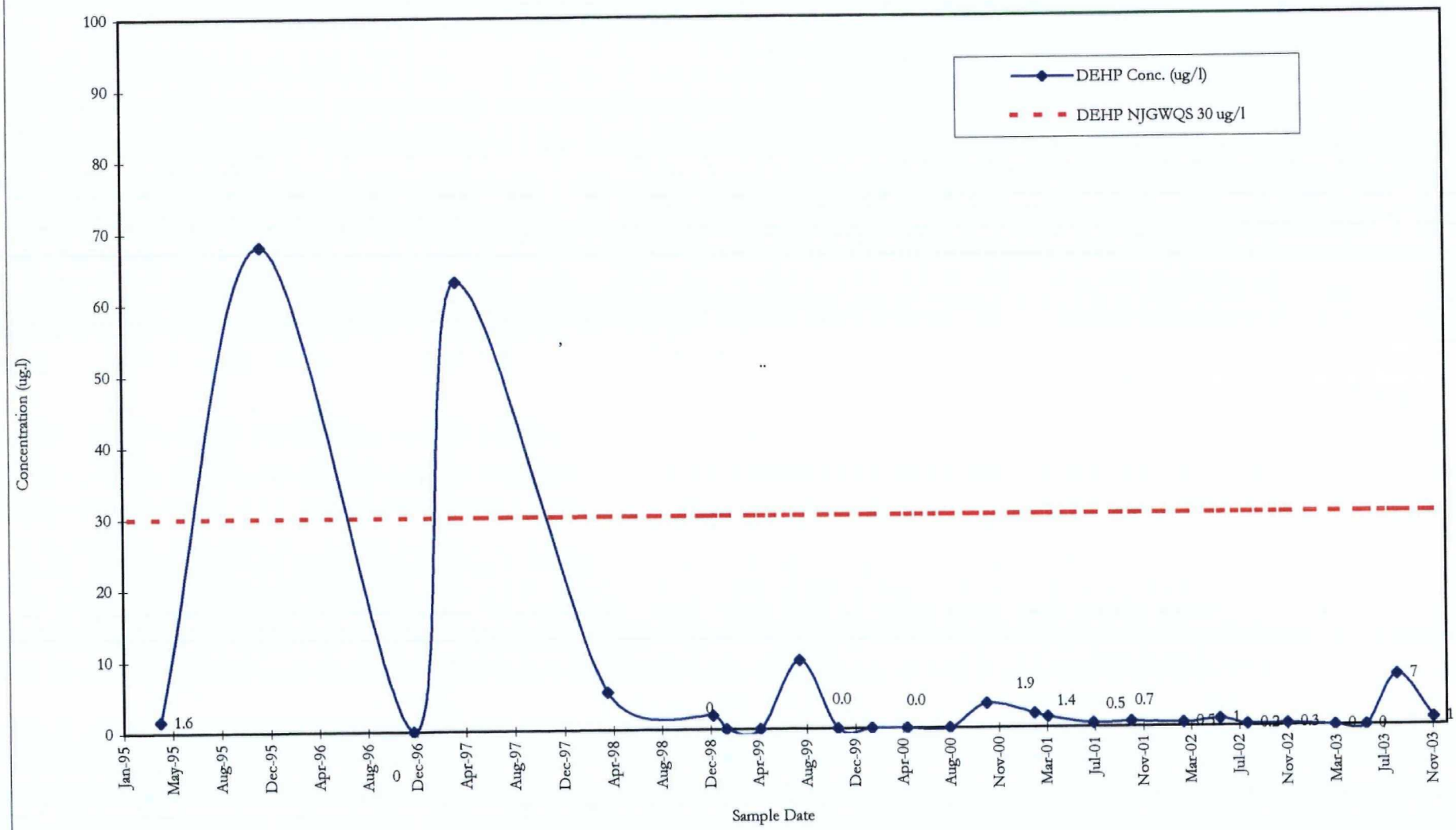
MW-25R Ethylebenzene Concentration Trend



MW-25R Total Xylene Concentration Trend



MW-25R DEHP Concentration Trend



h:\data\projects\lecarpen\quarters\gwresult\qtrqwsam\MW-25R Trend Charts Chart 7\MW-25R Trend Charts Chart 7

2/3/2004 11:19 AM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

Appendix E
4th Quarter 2003
Laboratory Analytical Report

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169393

SW-5 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/18/2003 07:58 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:42
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

SW5-- SDG#: LEC04-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/25/2003 10:52	Martha L Seidel	1
00554	Base Neutrals (cont)	EPA 625	1	11/25/2003 11:15	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Lancaster, PA 17605-2425
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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169394

SW-7 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/18/2003 08:07 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:42
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

SW7-- SDG#: LEC04-02

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)						
05538	Total Xylenes	1330-20-7	N.D.		0.6	ug/l	1
07029	Benzene	71-43-2	N.D.		0.2	ug/l	1
07030	Toluene	108-88-3	N.D.		0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.		0.2	ug/l	1
00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	3.	J	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 18:32	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/25/2003 12:04	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Lancaster Laboratories

REPRINT

Lancaster Laboratories Sample No. WW 4169411

SW-8 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/18/2003 07:46 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/10/2003 at 08:03
Discard: 01/10/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MWSW8 SDG#: LEC04-17

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)						
05538	Total Xylenes	1330-20-7	1.2	J	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.		0.2	ug/l	1
07030	Toluene	108-88-3	N.D.		0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.		0.2	ug/l	1
00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.		1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 16:45	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/25/2003 08:49	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169395

MW-4 Unspiked Grab Water Sample
L.E. Carpenter, NJ

Collected:11/18/2003 10:28 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:42
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

M-W4- SDG#: LEC04-03BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	67.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 20:19	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/24/2003 18:57	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169396

MW-4/MS Matrix Spike Grab Water Sample
L.E. Carpenter, NJ

Collected:11/18/2003 10:28 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:42
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

M-W4- SDG#: LEC04-03MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	64.	0.6	ug/l	1
07029	Benzene	71-43-2	21.	0.2	ug/l	1
07030	Toluene	108-88-3	22.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	21.	0.2	ug/l	1
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	180.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 20:55	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/24/2003 19:46	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169397

MW-4/MSD Matrix Spike Dup Grab Water Sample
L.E. Carpenter, NJ
Collected:11/18/2003 10:28 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:42
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

M-W4- SDG#: LEC04-03MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	67.	0.6	ug/l	1
07029	Benzene	71-43-2	21.	0.2	ug/l	1
07030	Toluene	108-88-3	23.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	22.	0.2	ug/l	1
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	1,300.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutio Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 21:31	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/24/2003 20:35	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169398

MW-11 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/18/2003 11:59 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:42
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MW-11 SDG#: LEC04-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
00554	Base Neutrals (cont)	EPA 625	1	11/24/2003 21:24	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169408

MW-14S Grab Water Sample
L.E. Carpenter, NJ

Collected:11/17/2003 17:44 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:43
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MW14S SDG#: LEC04-14

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)						
05538	Total Xylenes	1330-20-7	N.D.		0.6	ug/l	1
07029	Benzene	71-43-2	N.D.		0.2	ug/l	1
07030	Toluene	108-88-3	N.D.		0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.		0.2	ug/l	1
00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	2.	J	0.9	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 16:09	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/25/2003 05:31	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Lancaster, PA 17605-2425
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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169407

MW-14I Grab Water Sample
L.E. Carpenter, NJ

Collected:11/17/2003 16:23 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:43
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MW14I SDG#: LEC04-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/25/2003 10:16	Martha L Seidel	1
00554	Base Neutrals (cont)	EPA 625	1	11/25/2003 04:43	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169401

MW-15S Grab Water Sample
L.E. Carpenter, NJ

Collected:11/18/2003 16:03 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:42
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MW15S SDG#: LEC04-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutio Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 23:18	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/24/2003 23:50	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169400

MW-15I Grab Water Sample
L.E. Carpenter, NJ

Collected:11/18/2003 14:54 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:42
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MW15I SDG#: LEC04-06

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)						
05538	Total Xylenes	1330-20-7	N.D.		0.6	ug/l	1
07029	Benzene	71-43-2	N.D.		0.2	ug/l	1
07030	Toluene	108-88-3	N.D.		0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.		0.2	ug/l	1
00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	4.	J	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutio Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 22:42	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/24/2003 23:01	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169399

MW-17S Grab Water Sample
L.E. Carpenter, NJ

Collected:11/18/2003 13:13 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:42
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MW17S SDG#: LEC04-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 22:06	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/24/2003 22:12	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169404

MW-21 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/17/2003 11:31 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:43
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MW-21 SDG#: LEC04-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutio Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 13:46	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/25/2003 02:16	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169406

MW-22 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/17/2003 14:32 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:43
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MW-22 SDG#: LEC04-12

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)						
05538	Total Xylenes	1330-20-7	940.		3.0	ug/l	5
07029	Benzene	71-43-2	0.2	J	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.		0.2	ug/l	1
07031	Ethylbenzene	100-41-4	190.		0.2	ug/l	1
00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	2,200.		24.	ug/l	25

Due to the sample matrix an initial dilution was necessary to perform the analysis. Therefore, the reporting limits for the GC/MS semivolatile compounds were raised.

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 14:58	Linda C Pape	1
08238	BTEX (EPA 602)	EPA 602	1	11/24/2003 03:14	Linda C Pape	5
00554	Base Neutrals (cont)	EPA 625	1	11/25/2003 14:32	Brian K Graham	25
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169405

MW-25 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/17/2003 13:01 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:43
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MW-25 SDG#: LEC04-11

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)						
05538	Total Xylenes	1330-20-7	N.D.		0.6	ug/l	1
07029	Benzene	71-43-2	N.D.		0.2	ug/l	1
07030	Toluene	108-88-3	N.D.		0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.		0.2	ug/l	1
00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	1.	J	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutio Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 14:22	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/25/2003 03:05	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169409

Rinsate Grab Water Sample
L.E. Carpenter, NJ

Collected:11/18/2003 09:10 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:43
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MW-RB SDG#: LEC04-15RB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/23/2003 02:16	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/25/2003 06:20	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Lancaster Laboratories

REPRINT

Lancaster Laboratories Sample No. WW 4169410

FB-01 Field Blank Grab Water Sample
L.E. Carpenter, NJ

Collected:11/18/2003 10:40 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/10/2003 at 08:03
Discard: 01/10/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MW-FB SDG#: LEC04-16FB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
08238	BTEX (EPA 602)	EPA 602	1	11/23/2003 01:41	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/25/2003 08:01	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169412

Dupe-01 Grab Water Sample
L.E. Carpenter, NJ

Collected: n.a. by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:43
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

DUPE1 SDG#: LEC04-18FD*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)						
05538	Total Xylenes	1330-20-7	920.		3.0	ug/l	5
07029	Benzene	71-43-2	0.2	J	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.		0.2	ug/l	1
07031	Ethylbenzene	100-41-4	180.		0.2	ug/l	1
00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	910.		20.	ug/l	20

Due to the sample matrix an initial dilution was necessary to perform the analysis. Therefore, the reporting limits for the GC/MS semivolatile compounds were raised.

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 17:20	Linda C Pape	1
08238	BTEX (EPA 602)	EPA 602	1	11/24/2003 03:50	Linda C Pape	5
00554	Base Neutrals (cont)	EPA 625	1	11/25/2003 13:42	Brian K Graham	20
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Lancaster, PA 17605-2425
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Lancaster Laboratories

Quality Control Summary

Client Name: RMT, Inc. Group Number: 875863
Reported: 12/01/03 at 10:43 AM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 03326A55A	Sample number(s): 4169394-4169397,4169399-4169406,4169408-4169412							
Total Xylenes	N.D.	0.6	ug/l	101	102	82-120	1	30
Benzene	N.D.	0.2	ug/l	98	98	75-134	0	30
Toluene	N.D.	0.2	ug/l	102	103	82-119	1	30
Ethylbenzene	N.D.	0.2	ug/l	99	100	81-119	1	30
Batch number: 03326A55B	Sample number(s): 4169406,4169412							
Total Xylenes	N.D.	0.6	ug/l	101	102	82-120	1	30
Batch number: 03326A55C	Sample number(s): 4169393,4169407							
Total Xylenes	N.D.	0.6	ug/l	101	102	82-120	1	30
Benzene	N.D.	0.2	ug/l	98	98	75-134	0	30
Toluene	N.D.	0.2	ug/l	102	103	82-119	1	30
Ethylbenzene	N.D.	0.2	ug/l	99	100	81-119	1	30
Batch number: 03326WAC625	Sample number(s): 4169393-4169412							
bis(2-Ethylhexyl)phthalate	N.D.	1.	ug/l	85		74-114		

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 03326A55A	Sample number(s): 4169394-4169397,4169399-4169406,4169408-4169412								
Total Xylenes	106	111	78-130	4	30				
Benzene	103	107	67-136	4	30				
Toluene	109	113	78-129	4	30				
Ethylbenzene	106	111	75-133	4	30				
Batch number: 03326A55B	Sample number(s): 4169406,4169412								
Total Xylenes	106	111	78-130	4	30				
Batch number: 03326A55C	Sample number(s): 4169393,4169407								
Total Xylenes	106	111	78-130	4	30				
Benzene	103	107	67-136	4	30				
Toluene	109	113	78-129	4	30				
Ethylbenzene	106	111	75-133	4	30				
Batch number: 03326WAC625	Sample number(s): 4169393-4169412								
bis(2-Ethylhexyl)phthalate	113	1229*	23-146	151*	30				

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

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2425 New Holland Pike
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Lancaster Laboratories

Quality Control Summary

Client Name: RMT, Inc.
Reported: 12/01/03 at 10:43 AM

Group Number: 875863

Surrogate Quality Control

Analysis Name: BTEX (EPA 602)
Batch number: 03326A55A

	Trifluorotoluene-P
4169394	94
4169395	94
4169396	94
4169397	94
4169399	94
4169400	93
4169401	94
4169402	94
4169403	93
4169404	95
4169405	94
4169406	90
4169408	95
4169409	94
4169410	94
4169411	94
4169412	92
Blank	94
LCS	96
LCSD	96
MS	94
MSD	94
Limits:	66-136

Analysis Name: BTEX (EPA 602)
Batch number: 03326A55B

	Trifluorotoluene-P
Blank	93
LCS	96
LCSD	96
MS	94
MSD	94
Limits:	66-136

Analysis Name: BTEX (EPA 602)
Batch number: 03326A55C

	Trifluorotoluene-P
4169393	94
4169407	95
Blank	95
LCS	96
LCSD	96

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

Lancaster Laboratories

Quality Control Summary

Client Name: RMT, Inc. Group Number: 875863
Reported: 12/01/03 at 10:43 AM

Surrogate Quality Control

MS	94
MSD	94
Limits:	66-136

Analysis Name: Base Neutrals
Batch number: 03326WAC625

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
4169393	78	79	62
4169394	81	84	64
4169395	76	80	73
4169396	87	92	72
4169397	84	94	85
4169398	63	67	64
4169399	86	95	68
4169400	84	88	70
4169401	84	92	86
4169402	86	92	72
4169403	89	97	73
4169404	89	95	94
4169405	90	93	61
4169406	90	93	89
4169407	82	86	61
4169408	90	93	80
4169409	91	96	92
4169410	99	95	94
4169411	88	90	67
4169412	88	104	81
Blank	78	75	88
LCS	88	93	89
MS	87	92	72
MSD	84	94	85
Limits:	57-116	63-113	38-134

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

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Analysis Request / Environmental Services Chain of Custody

Lancaster Laboratories
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For Lancaster Laboratories use only
Acct. # 9322 Group# 875863 Sample # 4169323-12

COC # 0040556

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: 9322 - RMT Acct. #:
Project Name/#: LE Carpenter PWSID #:
Project Manager: NICK Gevett P.O.#:
Sampler: SSL/JPM Quote #:
Name of state where samples were collected: NJ

For Lab Use Only
FSC:
SCR #: 11847196

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total # of Containers	BTEX	DEHP	Remarks	Temperature of samples upon receipt (if requested)
SW-5	11/18/03	7:58	✓			✓		5	✓	✓		
SW-7		8:07	✓			✓		5	✓	✓		
MW4 MS		10:28	✓			✓		5	✓	✓		
MW4 MSD		10:28	✓			✓		5	✓	✓		
MW11		11:59	✓			✓		2		✓		
MW17S		13:13	✓			✓		5	✓	✓		
MW15I		14:54	✓			✓		5	✓	✓		
MW15S		16:03	✓			✓		5	✓	✓		
MW19-6		17:40	✓			✓		5	✓	✓		
MW19-9D	11/19/03	8:24	✓			✓		5	✓	✓		

OMC 11/20/03
temp 4-10°C

(7) **Turnaround Time Requested** (TAT) (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax E-mail
Phone #: Fax #:
E-mail address:

(8) **Data Package Options** (please circle if required)
QC Summary Type VI (Raw Data)
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP)

SDG Complete? Yes No

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[illegible]	11/19/03	1309	Sarah Lapka	11/20/03	12:20
Sarah Lapka	11/20/03	12:20	M Weir	11/20/03	12:20
M Weir	11/20/03	4:16			
			Jessica Baum	11/20/03	1616

Analysis Request Environmental Services Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only

Acct. # 9322 Group# 875863 Sample # 4169393-12 **COC #** 0040553

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: 9322-RMT Acct. #:
Project Name/#: LE Carpenter PWSID #:
Project Manager: Nick Clevett P.O.#:
Sampler: SSL/JPM Quote #:
Name of state where samples were collected: NJ

For Lab Use Only
FSC:
SCR #:

(2)

Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	(4) Matrix: Soil	Water (Potable / NPDES)	Other	Total # of Containers	(5) Analyses Requested: BTEX	DEHP							Remarks
MW21	11/17/03	11:31	✓			✓		5	✓	✓							
MW25		13:01	✓			✓		5	✓	✓							
MW22		14:32	✓			✓		4	✓	✓							
MW14I		16:23	✓			✓		5	✓	✓							
MW14S		17:44	✓			✓		5	✓	✓							
Rinsate	11/18/03	9:10	✓			✓		5	✓	✓							
MW4		10:28	✓			✓		5	✓	✓							
FB01		10:40	✓			✓		5	✓	✓							
SW-8		7:46	✓			✓		5	✓	✓							
Dupe01			✓			✓		5	✓	✓							

(6) Temperature of samples upon receipt (if requested)

cmc 11/20/03
temp 4-10°C

(7) **Turnaround Time Requested** (TAT) (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax E-mail
Phone #: Fax #:
E-mail address:

(8) **Data Package Options** (please circle if required)
QC Summary Type VI (Raw Data)
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP)

SDG Complete? Yes No

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
Sarah Lapka	11/20/03	12:20	M Wie	11/20/03	12:20
M Wie	11/20/03	4:16			
			Jessica Barr	11/20/03	16/6

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300
Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

2102 Rev. 10/27/02

Appendix F
MW19/Hot Spot 1 Laboratory Analytical Report

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169421

MW19 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/20/2003 10:36 by JPM

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/05/2003 at 13:18
Discard: 01/05/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MW19- SDG#: LEC05-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	7,400.	60.	ug/l	100
07029	Benzene	71-43-2	N.D.	20.	ug/l	100
07030	Toluene	108-88-3	40,000.	40.	ug/l	200
07031	Ethylbenzene	100-41-4	1,500.	20.	ug/l	100

Sufficient sample volume was not available to perform a MSD for this analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

Due to dilution of the sample made necessary by the high level of toluene, normal reporting limits were not attained.

00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	6.	J	1.	ug/l	1

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/23/2003 23:42	Linda C Pape	200
08238	BTEX (EPA 602)	EPA 602	1	11/24/2003 00:21	Linda C Pape	100
00554	Base Neutrals (cont)	EPA 625	1	11/26/2003 15:26	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 16:50	JoElla L Rice	1

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Lancaster Laboratories Sample No. WW 4169421

MW19 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/20/2003 10:36 by JPM

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/05/2003 at 13:18
Discard: 01/05/2004

RMT, Inc.
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MW19- SDG#: LEC05-09

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169418

MW19-1 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/19/2003 16:57 by JPM

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/05/2003 at 13:18
Discard: 01/05/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MW191 SDG#: LEC05-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
	Sufficient sample volume was not available to perform a MSD for this analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.9	ug/l	1
	Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutio Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 18:34	Martha L Seidel	1
00554	Base Neutrals (cont)	EPA 625	1	11/26/2003 12:59	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 16:50	JoElla L Rice	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169419

MW19-2 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/19/2003 18:10 by JPM

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/05/2003 at 13:18
Discard: 01/05/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

MW192 SDG#: LEC05-07

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)						
05538	Total Xylenes	1330-20-7	N.D.		0.6	ug/l	1
07029	Benzene	71-43-2	N.D.		0.2	ug/l	1
07030	Toluene	108-88-3	N.D.		0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.		0.2	ug/l	1
	Sufficient sample volume was not available to perform a MSD for this analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	3.	J	1.	ug/l	1
	Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 19:13	Martha L Seidel	1
00554	Base Neutrals (cont)	EPA 625	1	11/26/2003 13:48	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 16:50	JoElla L Rice	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169416

MW19-3 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/19/2003 14:03 by JPM

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/05/2003 at 13:18
Discard: 01/05/2004

RMT, Inc.
PO Box 8923
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MW193 SDG#: LEC05-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
	Sufficient sample volume was not available to perform a MSD for this analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.9	ug/l	1
	Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutio Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 17:16	Martha L Seidel	1
00554	Base Neutrals (cont)	EPA 625	1	11/26/2003 11:20	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 16:50	JoElla L Rice	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169417

MW19-4 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/19/2003 15:45 by JPM

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/05/2003 at 13:18
Discard: 01/05/2004

RMT, Inc.
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MW194 SDG#: LEC05-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
	Sufficient sample volume was not available to perform a MSD for this analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1
	Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 17:55	Martha L Seidel	1
00554	Base Neutrals (cont)	EPA 625	1	11/26/2003 12:10	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 16:50	JoElla L Rice	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169420

MW19-5 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/20/2003 09:04 by JPM

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/05/2003 at 13:18
Discard: 01/05/2004

RMT, Inc.
PO Box 8923
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MW195 SDG#: LEC05-08

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)						
05538	Total Xylenes	1330-20-7	0.9	J	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.		0.2	ug/l	1
07030	Toluene	108-88-3	4.3		0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.		0.2	ug/l	1
	Sufficient sample volume was not available to perform a MSD for this analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.		0.9	ug/l	1
	Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 19:52	Martha L Seidel	1
00554	Base Neutrals (cont)	EPA 625	1	11/26/2003 14:37	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 16:50	JoElla L Rice	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169402

MW-19-6 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/18/2003 17:40 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:43
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
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MW196 SDG#: LEC04-08

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)						
05538	Total Xylenes	1330-20-7	N.D.		0.6	ug/l	1
07029	Benzene	71-43-2	N.D.		0.2	ug/l	1
07030	Toluene	108-88-3	0.3	J	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.		0.2	ug/l	1
00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	6.	J	1.	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutio Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 23:54	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/25/2003 00:39	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169415

MW19-7 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/19/2003 11:21 by JPM

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/05/2003 at 13:18
Discard: 01/05/2004

RMT, Inc.
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MW197 SDG#: LEC05-03

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)						
05538	Total Xylenes	1330-20-7	460.		0.6	ug/l	1
07029	Benzene	71-43-2	4.7		0.2	ug/l	1
07030	Toluene	108-88-3	0.3	J	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	0.4	J	0.2	ug/l	1
	Sufficient sample volume was not available to perform a MSD for this analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	1.	J	1.	ug/l	1
	Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutio Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 16:37	Martha L Seidel	1
00554	Base Neutrals (cont)	EPA 625	1	11/26/2003 10:31	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 16:50	JoElla L Rice	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169414

MW19-8 Grab Water Sample
L.E. Carpenter, NJ

Collected:11/19/2003 10:10 by JPM

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/05/2003 at 13:18
Discard: 01/05/2004

RMT, Inc.
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MW198 SDG#: LEC05-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
	Sufficient sample volume was not available to perform a MSD for this analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.9	ug/l	1
	Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 15:57	Martha L Seidel	1
00554	Base Neutrals (cont)	EPA 625	1	11/26/2003 09:42	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 16:50	JoElla L Rice	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169403

MW-19-9D Grab Water Sample
L.E. Carpenter, NJ

Collected:11/19/2003 08:24 by SSL

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/01/2003 at 10:43
Discard: 01/01/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

M199D SDG#: LEC04-09

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)						
05538	Total Xylenes	1330-20-7	N.D.		0.6	ug/l	1
07029	Benzene	71-43-2	N.D.		0.2	ug/l	1
07030	Toluene	108-88-3	N.D.		0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.		0.2	ug/l	1
00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	1.	J	0.9	ug/l	1

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/23/2003 00:29	Linda C Pape	1
00554	Base Neutrals (cont)	EPA 625	1	11/25/2003 01:28	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 09:20	Denise L Trimby	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169422

Trip Blank Water Sample
L.E. Carpenter, NJ

Collected: n.a.

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/05/2003 at 13:18
Discard: 01/05/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

LECTB SDG#: LEC05-10TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
	Sufficient sample volume was not available to perform a MSD for this analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1
	Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 14:39	Martha L Seidel	1
00554	Base Neutrals (cont)	EPA 625	1	11/27/2003 14:33	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 16:50	JoElla L Rice	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4169413

Dupe-02 Grab Water Sample
L.E. Carpenter, NJ

Collected: n.a. by JPM

Account Number: 09322

Submitted: 11/20/2003 16:16
Reported: 12/05/2003 at 13:18
Discard: 01/05/2004

RMT, Inc.
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DUPE2 SDG#: LEC05-01FD

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)						
05538	Total Xylenes	1330-20-7	N.D.		0.6	ug/l	1
07029	Benzene	71-43-2	N.D.		0.2	ug/l	1
07030	Toluene	108-88-3	N.D.		0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.		0.2	ug/l	1
	Sufficient sample volume was not available to perform a MSD for this analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	2.	J	1.	ug/l	1
	Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						

State of New Jersey Lab Certification No. PA011
The temperature of the vials (VOA samples) upon receipt at the lab was 7-11C.
Bagged ice was present.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	11/22/2003 15:18	Martha L Seidel	1
00554	Base Neutrals (cont)	EPA 625	1	11/26/2003 08:53	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	11/24/2003 16:50	JoElla L Rice	1

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Lancaster Laboratories

Quality Control Summary

Client Name: RMT, Inc. Group Number: 875864
Reported: 12/05/03 at 01:18 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 03326A53A	Sample number(s): 4169413-4169420,4169422							
Total Xylenes	N.D.	0.6	ug/l	99	97	82-120	2	30
Benzene	N.D.	0.2	ug/l	103	100	75-134	3	30
Toluene	N.D.	0.2	ug/l	117	112	82-119	4	30
Ethylbenzene	N.D.	0.2	ug/l	104	101	81-119	3	30
Batch number: 03326A53B	Sample number(s): 4169421							
Total Xylenes	N.D.	0.6	ug/l	99	97	82-120	2	30
Benzene	N.D.	0.2	ug/l	103	100	75-134	3	30
Toluene	N.D.	0.2	ug/l	117	112	82-119	4	30
Ethylbenzene	N.D.	0.2	ug/l	104	101	81-119	3	30
Batch number: 03328WAD625	Sample number(s): 4169413-4169422							
bis(2-Ethylhexyl)phthalate	N.D.	1.	ug/l	95	94	74-114	1	30

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 03326A53A	Sample number(s): 4169413-4169420,4169422								
Total Xylenes	102		78-130						
Benzene	106		67-136						
Toluene	114		78-129						
Ethylbenzene	106		75-133						
Batch number: 03326A53B	Sample number(s): 4169421								
Total Xylenes	102		78-130						
Benzene	106		67-136						
Toluene	114		78-129						
Ethylbenzene	106		75-133						

Surrogate Quality Control

Analysis Name: BTEX (EPA 602)
Batch number: 03326A53A

	Trifluorotoluene-P
4169413	122
4169414	118
4169415	102

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

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Lancaster Laboratories

Quality Control Summary

Client Name: RMT, Inc. Group Number: 875864
Reported: 12/05/03 at 01:18 PM

Surrogate Quality Control

4169416	123
4169417	124
4169418	123
4169419	123
4169420	118
4169422	123
Blank	122
LCS	121
LCSD	121
MS	119
Limits:	66-136

Analysis Name: BTEX (EPA 602)
Batch number: 03326A53B

	Trifluorotoluene-P
4169421	120
Blank	118
LCS	121
LCSD	121
MS	119
Limits:	66-136

Analysis Name: Base Neutrals
Batch number: 03328WAD625

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
4169413	75	87	84
4169414	72	80	90
4169415	84	93	81
4169416	82	89	89
4169417	78	88	85
4169418	83	88	92
4169419	85	91	90
4169420	80	93	89
4169421	76	94	96
4169422	81	85	88
Blank	75	77	91
LCS	86	87	90
LCSD	81	84	91
Limits:	57-116	63-113	38-134

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

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Analysis Request Environmental Services Chain of Custody

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(3) HZC 11/20/03
For Lancaster Laboratories use only

Acct. # 9322 Group# ~~87584~~ 875864 Sample # 4169413-22

COC # 0040554

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: 9322-RMT Acct. #:
Project Name/#: LE Carpenter PWSID #:
Project Manager: Nick Clevett P.O.#:
Sampler: JPM/SSL Quote #:
Name of state where samples were collected: NJ

For Lab Use Only
FSC:
SCR #:

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total # of Containers	BTEX	DEHP							Remarks
Dupe 02			✓			✓		5	✓	✓							
MW19-8	11/19/03	10:10	✓			✓		5	✓	✓							
MW19-7		11:21	✓			✓		5	✓	✓							
MW19-3		14:03	✓			✓		5	✓	✓							
MW19-4		15:45	✓			✓		5	✓	✓							
MW19-1		16:57	✓			✓		5	✓	✓							
MW19-2		18:10	✓			✓		5	✓	✓							
MW19-5	11/20/03	9:04	✓			✓		5	✓	✓							
MW19	11/20/03	10:36	✓			✓		5	✓	✓							
Trip Blank			✓			✓		4	✓	✓							

Matrix: ☐ Potable ☐ NPDES Check if Applicable

Analyses Requested

Temperature of samples upon receipt (if requested): Cmc 11/20/03 temp 4-10°C

only analyze 3 VOAs

(7) **Turnaround Time Requested (TAT)** (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax E-mail
Phone #: Fax #:
E-mail address:

(8) **Data Package Options** (please circle if required)
QC Summary Type VI (Raw Data)
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP)

SDG Complete? Yes No
Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
Sarah Lapka	11/20/03	12:20	M Wie	11/20/03	12:20
M Wie	11/20/03	4:16			
			Jessica Barn	11/20/03	1616

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4189441

MW19-5 Grab Water Sample
L.E. Carpenter, NJ

Collected:12/18/2003 12:55 by SL

Account Number: 09322

Submitted: 12/19/2003 16:45
Reported: 01/08/2004 at 16:03
Discard: 02/08/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

195MW SDG#: LEC06-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	24.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	240.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	3.7	0.2	ug/l	1
00554	Base Neutrals (cont)					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.9	ug/l	1

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

State of New Jersey Lab Certification No. PA011

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
08238	BTEX (EPA 602)	EPA 602	1	12/31/2003 03:57	Michael F Barrow	1
00554	Base Neutrals (cont)	EPA 625	1	12/23/2003 03:35	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	12/22/2003 10:00	Jennytza L Marcano	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4189442

GE1-2S Grab Water Sample
L.E. Carpenter, NJ

Collected:12/18/2003 14:17 by SL

Account Number: 09322

Submitted: 12/19/2003 16:45
Reported: 01/06/2004 at 13:34
Discard: 02/06/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

GE12S SDG#: LEC06-02

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)						
05538	Total Xylenes	1330-20-7	N.D.		0.6	ug/l	1
07029	Benzene	71-43-2	N.D.		0.2	ug/l	1
07030	Toluene	108-88-3	0.4	J	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.		0.2	ug/l	1
00554	Base Neutrals (cont)						
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.		1.	ug/l	1

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

State of New Jersey Lab Certification No. PA011

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	12/31/2003 11:31	Michael F Barrow	1
00554	Base Neutrals (cont)	EPA 625	1	12/23/2003 04:27	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	12/22/2003 10:00	Jennytza L Marcano	1

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4189443

Trip Blank Water Sample
L.E. Carpenter, NJ

Collected: n.a.

Account Number: 09322

Submitted: 12/19/2003 16:45
Reported: 01/06/2004 at 13:34
Discard: 02/06/2004

RMT, Inc.
PO Box 8923
Madison WI 53708-8923

TBLEC SDG#: LEC06-03TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1

State of New Jersey Lab Certification No. PA011

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilutic Factor
08238	BTEX (EPA 602)	EPA 602	1	12/31/2003 12:12	Michael F Barrow	1

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Lancaster Laboratories

Quality Control Summary

Client Name: RMT, Inc.
Reported: 01/06/04 at 01:34 PM

Group Number: 879298

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 03354WAD625	Sample number(s): 4189441-4189442							
bis(2-Ethylhexyl)phthalate	N.D.	1.	ug/l	93	96	74-114	3	30
Batch number: 03364A15B	Sample number(s): 4189441							
Total Xylenes	N.D.	0.6	ug/l	104		82-120		
Benzene	N.D.	0.2	ug/l	99		75-134		
Toluene	N.D.	0.2	ug/l	100		82-119		
Ethylbenzene	N.D.	0.2	ug/l	104		81-119		
Batch number: 03364A15C	Sample number(s): 4189442-4189443							
Total Xylenes	N.D.	0.6	ug/l	104		82-120		
Benzene	N.D.	0.2	ug/l	99		75-134		
Toluene	N.D.	0.2	ug/l	100		82-119		
Ethylbenzene	N.D.	0.2	ug/l	104		81-119		

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 03364A15B	Sample number(s): 4189441								
Total Xylenes	102	105	78-130	2	30				
Benzene	93	99	67-136	2	30				
Toluene	94	99	78-129	2	30				
Ethylbenzene	104	107	75-133	3	30				
Batch number: 03364A15C	Sample number(s): 4189442-4189443								
Total Xylenes	102	105	78-130	2	30				
Benzene	93	99	67-136	2	30				
Toluene	94	99	78-129	2	30				
Ethylbenzene	104	107	75-133	3	30				

Surrogate Quality Control

Analysis Name: Base Neutrals
Batch number: 03354WAD625

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
4189441	80	88	67
4189442	81	91	63
Blank	79	85	116

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

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Lancaster Laboratories

Quality Control Summary

Client Name: RMT, Inc. Group Number: 879298
Reported: 01/06/04 at 01:34 PM

Surrogate Quality Control

LCS	90	89	105
LCSD	87	98	81
Limits:	57-116	63-113	38-134

Analysis Name: BTEX (EPA 602)
Batch number: 03364A15B

	Trifluorotoluene-P
4189441	97
Blank	98
LCS	96
MS	98
MSD	98
Limits:	66-136

Analysis Name: BTEX (EPA 602)
Batch number: 03364A15C

	Trifluorotoluene-P
4189442	98
4189443	96
Blank	98
LCS	96
MS	98
MSD	98
Limits:	66-136

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

Analysis Request Environmental Services Chain of Custody

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For Lancaster Laboratories use only
Acct. # 9322 Group# 879298 Sample # 4189441-43

COC # 0041285

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: 9322 - RMT Acct. #:
Project Name/#: LEC PWSID #:
Project Manager: Nick Clevett P.O.#:
Sampler: Sarah Lapka Quote #:
Name of state where samples were collected: NJ

For Lab Use Only
FSC:
SCR #: 1185222

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water (☐ Potable ☐ NPDES)	Other	Total # of Containers	BTEX	DEHP							Remarks
MW19-5	12/18/03	12:55	✓			✓		5	✓	✓							
GE1-2S	12/18/03	14:17	✓			✓		5	✓	✓							
Trip Blank																	

Temperature of samples upon receipt (if requested)

Cmc 12/19/03
temp 1.0°C

(7) **Turnaround Time Requested** (TAT) (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax E-mail
Phone #: Fax #:
E-mail address:

(8) **Data Package Options** (please circle if required)
QC Summary Type VI (Raw Data)
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP)

SDG Complete? Yes No
Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	12/16/03	16:25			
Sarah Lapka	12/19/03	9:50	[signature]	12/19/03	0950
[signature]	12/19/03	1645			
			Heather Calonga	12/19/03	1645