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SEMI-ANNUAL ASSESSMENT MONITORING  
REPORT (AMR)

JUNE 2003 PROGRAM

GENERAL CHEMICAL CORPORATION

133-135 LELAND STREET

FRAMINGHAM, MASSACHUSETTS

3-12043 3-19174

PREPARED FOR:

General Chemical Corporation  
Framingham, Massachusetts

PREPARED BY:

GZA GeoEnvironmental, Inc.  
Norwood, Massachusetts

NOV 13 2003

November 2003  
File No. 15861.12

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November 5, 2003  
GZA File No. 15861.12

Mr. Jeffrey Chormann  
Executive Office of Environmental Affairs  
Department of Environmental Protection  
One Winter Street  
Boston, Massachusetts 02108



Re: June 2003 Semi-Annual Assessment Monitoring Report (AMR)  
General Chemical Corporation, 133-135 Leland Street, Framingham, Massachusetts

Dear Mr. Chormann:

GZA GeoEnvironmental, Inc. (GZA) is pleased to present this report on behalf of General Chemical Corporation (GCC). This report presents the results of the June 2003 semi-annual AMP which includes a synoptic groundwater level gauging round, groundwater sample collection, and analysis as well as the synoptic groundwater level gauging round conducted by VERTEX Engineering Services, Inc (VERTEX).

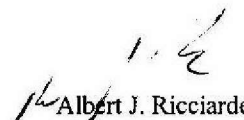
This report contains information that addresses requirements contained in Attachment I to the Massachusetts Department of Environmental Protection (DEP) letter to GCC dated April 20, 1999, regarding the Comprehensive Assessment Report (CARP) prepared by CDW Consultants, Inc. (CDW) for the Site. Additionally, this report has been prepared to comply with the requirements set forth in DEP's November 2, 2000 Decision with Modifications. As such, this report includes historical data summaries and data quality evaluation for the current (June 2003) sampling round.

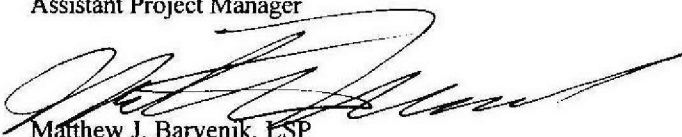
Please do not hesitate to call the undersigned at (781) 278-3700 with questions and/or comments.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

  
Maryann H. Sapanara  
Assistant Project Manager

  
Albert J. Ricciardelli, PE  
Consultant/Reviewer

  
Matthew J. Barvenik, LSP  
Senior Principal

Attachment: June AMR

|     |                                                        |                                           |
|-----|--------------------------------------------------------|-------------------------------------------|
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|     | Michael S. Persico, GCC (w/o attachment)               | Christopher Davey, AIG Technical Services |
|     | Matt Hoagland, EPA Region I (w/o attachment)           | Gary Basileco, Excelon                    |
|     | George P. King, Jr., City of Framingham                | Leon Latille, MWRA                        |
|     | Patricia Donahue and Nihar Mohanty, DEP/BWSC-NERO      | Robert T. Cooper, City of Framingham      |
|     | Reference Department, Framingham Public Library        | Gustav E. Pearson (w/o attachment)        |
|     | Superintendent of Schools, Framingham (w/o attachment) |                                           |

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## 1.00 INTRODUCTION AND SUMMARY

GZA GeoEnvironmental, Inc. (GZA) has prepared this Assessment Monitoring Report (AMR) on behalf of our client, General Chemical Corporation (GCC). This report is subject to the Limitations presented in Section 3.00. This report documents the results of the June 2003 Assessment Monitoring Program (AMP) at the 133-135 Leland Street site in Framingham, Massachusetts (the Site), which is shown on Figure 1.

The Assessment Monitoring Program is designed to monitor groundwater and surface water quality and elevation at representative locations at the Site. Fourteen groundwater and four surface water samples were collected during this AMP and analyzed for the presence of volatile organic compounds (VOCs) by EPA Method 8260B. Synoptic groundwater and surface water elevation rounds were performed by VERTEX Engineering Services, Inc (VERTEX)<sup>1</sup> on March 6, 2003 and by GZA on June 2, 2003. Laboratory analytical results from the samples taken during the spring sampling round are discussed in Section 2.00 of this report.

With the guidance of the Massachusetts Department of Environmental Protection (MADEP), modifications to this sampling round have been made given our understanding of the Site and the conceptual Site model. Specifically, GZ-12 was not sampled during this round because it is on the other side of the groundwater divide and is not a plume boundary well. GZA-16S had an obstruction and as such, was not sampled this round. With the permission of MADEP, GZA sampled PZ-1S instead (because it is along the same flow path) and will continue to monitor GZA-16M. Lastly, the car wash well was not sampled during this round because the last two sampling rounds have shown no detectable levels of contamination. GZA will continue to review the semi-annual AMR data and if concentrations in either GZ-7 or GZ-7R exceed their historic concentrations GZA will re-evaluate the need to re-sample the car wash well.

In general, the data from this AMP are consistent with that collected during the previous monitoring rounds. More specifically, the data indicate that the VOC groundwater plume originating from the GCC Facility continues to exist downgradient with the highest VOC levels detected along the centerline of the plume. No VOCs were detected in wells GZ-2, GZ-5S, GZA-15D, GZA-16M, or piezometer PZ-1S.

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<sup>1</sup> Because Vertex did not gauge sufficient wells and locations, groundwater contours could not be produced for the data provided for the winter gauging round. See Table 1 for details.

## 2.00 GROUNDWATER QUALITY SAMPLING AND RESULTS



In accordance with MADEP requirements for semi-annual AMP sampling, GZA completed the Spring 2003 groundwater sampling and analytical program. The total program consisted of the collection of groundwater samples from twelve monitoring wells, two piezometers, and four surface water sampling locations.

### 2.10 GROUNDWATER AND SURFACE WATER ELEVATION MEASUREMENTS

Between June 2 and 4, 2003, GZA personnel gauged and recorded depths to groundwater and NAPL thicknesses (if present) in thirteen Site wells and piezometers to the nearest 0.01-foot using an electronic interface probe. In addition, GZA gauged surface water elevations at five surface water sampling locations. Measurable quantities of separate phase hydrocarbons (SPH) were not detected in monitoring wells gauged during the current monitoring round.

Groundwater and surface water elevations were calculated using existing measuring point elevations minus the depth to water at each location. Groundwater and surface water elevation data are presented in Tables 1 and 2. The elevations measured during these rounds are consistent with those observed during previous monitoring events. Also consistent with previous monitoring, the data for groundwater to the north of Leland Street (the former Trinity Oil Site) indicate flow to the northwest, with a groundwater divide proximate and parallel to Leland Street.

As all wells were not gauged during the March round, there were insufficient data to generate groundwater elevation contours. Groundwater contours for the spring round can be found in Figures 1 and 2 for sand and silt, respectively

Data collected during the winter gauging event indicate downward vertical gradients in the CDW-18S/D, the GZ-7/7R the CDW-19S/19D, and the EW-PZ2S/D well clusters. Upward vertical gradients were observed in the CDW-19D/GZ-19DD well cluster and no vertical gradient was observed in the PZ-2S/D cluster<sup>2</sup>. See Table 1 for groundwater elevations at locations gauged during that round. Water levels measured during this round are generally lower than those measured during the previous AMP as would be expected during the winter.

Data collected during the spring gauging event indicate downward vertical gradients in the CDW-18S/D, CDW-19S/19D, the GZ-4/R, the GZ-7/7R and the PZ-4S/D well clusters. Upward vertical gradients were observed in the CDW-19D/GZ-19DD, the GZA 15S/D/R, the GZA-17S/M, the GZA-18S/M, the EW-PZ-2S/D, the PZ-1S/D, and the PZ-3S/D/SW-PZ3 clusters. No vertical gradient was observed in the PZ-2S/D and the GZA-14S/M clusters. See Table 2 for groundwater elevations at locations gauged during that round. Water levels

<sup>2</sup> Since not all the wells were gauged by VERTEX during the winter round, vertical gradient information is not available for the following well clusters: GZ-4/R, GZ-5S/D, GZA-14S/M, GZA-15S/D/R, GZA-16S/M, GZA-17S/M, GZA-18S/M, PZ-1S/D, PZ-3S/D/SW-PZ-3, and PZ-4S/D.

measured during this round are generally higher than measured during the previous AMP and observed vertical gradients are generally consistent.

## 2.20 GROUNDWATER SAMPLING PROCEDURES

Between June 2 and 4, 2003, GZA personnel collected groundwater samples from twelve monitoring wells (GZ-1, GZ-2, GZ-5S, GZ-7, GZ-7R, GZA-14S, GZA-14M, GZA-15S, GZA-15D, GZA-15R, GZA-16M, and GZA-19DD) and two piezometers (PZ-1S and PZ-2S). Low flow sampling techniques were employed<sup>3</sup> in accordance with United States Environmental Protection Agency (EPA) guidelines<sup>4</sup>. Parameters (pH, temperature, specific conductivity, dissolved oxygen, ORP, and turbidity) were recorded every three minutes using a YSI 600 XL multimeter and LaMotte 2020 turbidity meter. The YSI multimeter was calibrated on a daily basis prior to sampling by GZA field technicians. The calibration was verified at the end of each day. Groundwater samples were collected from each well or piezometer upon parameter stabilization. Purge water was transferred to a 55-gallon drum and disposal services were arranged by GCC.

Groundwater samples were analyzed for VOCs via EPA Method 8260B, including 1,4-dioxane. Groundwater samples for the analyses were collected in hydrochloric acid-preserved 40-ml vials with Teflon<sup>TM</sup> septa. Samples were stored in an ice-packed cooler and transported to GZA's Environmental Chemistry Laboratory (ECL) in Hopkinton, Massachusetts following chain-of-custody protocol. The analytical results for these samples are summarized in Table 3. Copies of the laboratory data sheets for the groundwater samples are presented in Appendix A.

Samples for Quality Assurance/Quality Control (QA/QC) were also collected during the sampling program (see Table 3 and Appendix A). These samples included three trip blanks and one duplicate sample. The duplicate sample was collected from monitoring well GZA-19DD and designated as GZA-19DD DUP. The trip blanks, prepared from analyte-free water poured directly into hydrochloric acid-preserved vials, were handled and shipped in the same manner as the groundwater and surface water samples to identify possible contamination resulting from the handling and analytical processes.

## 2.30 GROUNDWATER ANALYTICAL TESTING RESULTS

Fourteen VOCs (tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, dichloromethane, 1,1-dichloroethene, trans-1,2-dichloroethene, toluene, o-xylene, isopropylbenzene, 1,2,4-trimethylbenzene, and naphthalene,) were detected above method detection limits in groundwater samples. Of these compounds, total VOC concentrations detected ranged from 3.2 micrograms per liter (µg/L)

<sup>3</sup> All of the groundwater data shown in Appendix B were obtained by low flow sampling, except for the June 1999 and January 2000 rounds.

<sup>4</sup> Low Stress (low flow) Purging and Sampling Procedure for the Collection of Ground Water Samples From Monitoring Wells, EPA, Region I, July 30, 1996.



in the sample collected from GZA-15R to 105,300 µg/L in the sample collected from GZA-19DD. VOCs were not present above method detection limits in the groundwater samples collected from GZ-2, GZ-5S, GZA-15D, GZA-16M, and PZ-1S. A summary table of these analytical results is included as Table 3.

### 2.31 Historical Groundwater Data Trends



In general, the total VOC concentrations observed in monitoring wells sampled during this round were slightly lower than those observed during the last sampling round, but are within the range of concentrations historically observed. The concentrations in GZA-15S have increased slightly but are still relatively low. No VOCs were detected in wells GZ-2, GZ-5S, GZA-15D, GZA-16M<sup>5</sup>, or piezometer PZ-1S which is consistent with historic data.

Low levels of VOCs were detected again this round in GZ-7 and GZ-7R. The compounds detected in GZ-7 were primarily petroleum-related compounds which are likely present as the result of surface spills upgradient of the well. Low concentrations of Site constituents (cis-1, 2-dichloroethylene, tetrachloroethene, and 1,1,1-trichloroethane) were detected in GZ-7R at concentrations of 1.5, 1.6, and 1.1 µg/L, respectively, all of which are below GW-1 standards.

Analysis of the monitoring well GZ-1 groundwater sample reveals Site constituents present at concentrations similar to those observed during previous AMPs with the exception of cis-1,2-dichloroethene. The concentration of cis-1,2-dichloroethene observed this round was 740 µg/L (the maximum concentration of cis-1,2-dichloroethene previously observed was 180 µg/L in November 2001). This monitoring well was installed in December 1999, using heavy-weight drilling mud, and a double grouted casing in an attempt to isolate the screened interval from the contaminated sands above. This well is screened between 65 and 70 feet below ground surface in glacial till. Photoionization detector headspace readings of soil samples collected from this zone during well installation indicated non-detectable concentrations. The PID readings were confirmed based on laboratory analyses, which also show that this zone was not contaminated at the time the boring was installed. Groundwater samples from this well were initially collected in January 2000, one month after installation, and no VOCs were detected at that time. The presence of VOCs in the last two groundwater samples, the first of which was obtained over a year after well installation, likely indicates that the borehole may be acting as a preferential flow conduit for downward migration of small amounts of contaminants into the till, from the impacted zones above. GZA will analyze the data obtained during the next groundwater monitoring rounds to evaluate whether or not this is the case.

As in previous monitoring rounds, Site constituents with the highest groundwater concentrations were trichloroethene (TCE), tetrachloroethene (PCE) and cis-1,2-

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<sup>5</sup> GZA-16M had significant concentrations of VOCs during the November 2002 sampling round, performed by VERTEX, but has returned to non-detectable concentrations. It is believed that the detection was likely due to sample cross contamination.



dichloroethene (cis-1,2-DCE). Concentration trends<sup>6</sup> for these compounds are illustrated in time/concentration graphs (Appendix B), for the following monitoring wells and piezometers: GZ-1, GZ-2, GZ-5S, GZ-7, GZ-7R, GZA-14S, GZA-14M, GZA-15S, GZA-15D, GZA-15R, GZA-16M, GZA-19DD, PZ-1S, and PZ-2S. In addition, vinyl chloride was plotted for monitoring points in which it has been detected above the method detection limit, in the current or previous AMPs. Constituents that were not detected at concentrations above the method detection limit are represented on the graphs as a concentration of zero.

### 2.32 Seasonal Groundwater Variation

In general, groundwater elevations across the Site are low in the summer and fall, rise during the winter and are the highest during the spring. In all wells that were sampled this round, the groundwater elevations observed were higher than the November 2002 round<sup>7</sup>. Although total VOCs observed during this round are generally lower (with the exception of GZA-15S and GZ-1) there does not seem to be a correlation between the magnitude of increase in elevation and the magnitude of the decrease in concentration. Further, past data shows no real correlation between groundwater levels and VOC concentrations. GZA will continue to analyze these correlations during future sampling rounds.

### 2.40 SURFACE WATER SAMPLING PROCEDURES

On June 2, 2003, four surface water samples were collected from locations SW-3, SW-10, SW-USA-1, and SW-DSC-1. All four surface water samples were taken as grab samples. Surface water samples were collected in hydrochloric acid-preserved 40-ml vials with Teflon™ septa and analyzed for VOCs via EPA Method 8260B. Samples were stored in an ice-packed cooler and transported to GZA's Environmental Chemistry Laboratory (ECL) in Hopkinton, Massachusetts following chain-of-custody protocol. The VOC results for these samples are summarized in Table 3. Copies of the laboratory data sheets for the surface water samples are presented in Appendix A.

### 2.50 SURFACE WATER ANALYTICAL RESULTS

Ten VOCs (tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,4-dioxane, dichloromethane, 1,1-dichloroethene, and trans-1,2-dichloroethene) were detected above method detection limits in surface water samples. Of these compounds, total VOC concentrations detected ranged from 9.2 micrograms per liter (µg/L) in the sample collected from SW-USA-1 to 1,933 µg/L in the sample collected from SW-10.

<sup>6</sup> The groundwater data, shown in Appendix B, were obtained by low flow sampling except for the June 1999 and January 2000 rounds, and are documented in their respective AMRs.

<sup>7</sup> PZ-1S had the same groundwater elevation in June 2003 as it did in November 2002. In addition, PZ-2S was not gauged by VERTEX in November 2002, so that data is unavailable for comparison.





### 2.51 Historical Surface Water Data Trends

A decrease in total VOCs was observed in the surface water sample taken from all surface water locations except SW-3. Appendix C contains graphs of TCE, PCE, cis-1, 2-DCE and vinyl chloride concentrations over time for surface water locations SW-3, SW-10, SW-USA-1, and SW-DSC-1. At least seven sampling rounds have been conducted at each of these surface water sampling locations. VOC concentrations at these locations are variable, but show a generally decreasing trend from December 2000 onward. This variation is likely due to the presence of ice cover and changes in temperature.

### 2.52 Seasonal Surface Water Variation

Surface water VOC concentrations tend to be highest in the winter due to low volatilization resulting from decreased ambient water/air temperatures. In addition, both the drainage ditch and Course Brook tend to be frozen over in the winter, and concentrations may be higher because volatile compounds are trapped under the ice. Groundwater elevations were generally higher during this sampling round and as such more groundwater was likely recharging to the drainage ditch and Course Brook.

### 2.60 DATA USABILITY AND QA/QC DATA

Per MADEP's Decision with Modifications dated November 2, 2000, this report includes a discussion and evaluation of the quality and usability of the data. Included in this evaluation are a review of trip blanks, matrix spike and surrogate recoveries, and a discussion of elevated detection limits.

None of the three trip blanks contained VOCs at concentrations above the method detection limits. All laboratory matrix spike recoveries, surrogate recoveries, and matrix spike duplicate results were within method acceptance limits. The matrix spike recoveries for the 8260 analyses and surrogate recoveries were all within the limits for aqueous samples tested under this method. Acceptable limits are provided with the analytical data contained in Appendix A. No compounds were detected in the laboratory method blanks on the dates that the samples were analyzed. All sample coolers were received intact at the laboratory with interior temperatures below 5°C.

The method detection limits (MDLs) for the 8260B analyses were elevated for four of the eighteen samples. Elevated detection limits in a relatively concentrated sample are the result of the dilution required to quantify those compounds present at high concentrations. This is not unexpected for this Site given the high concentrations of Site constituents found within the core of the plume. The sample collected from monitoring well GZA-19DD had an elevated MDL due to the presence of elevated concentrations. Samples collected from monitoring well GZA-14M, piezometer PZ-2S, and surface water sampling location SW-10 had slightly elevated MDLs again due to the presence of elevated concentrations of VOCs.



Dilution is commonly performed in the laboratory to reduce sample concentrations to levels within the calibration range of the instrument. Dilution can potentially result in a false negative result for compounds in the samples at relatively low concentrations. The groundwater sample with an elevated MDL (GZA-19DD) was collected from an area proximate to the core of the plume. The samples with slightly elevated MDLs were taken from points on the fringe of the plume. As discussed in GZA's Data Quality Evaluation Report (February 2001), groundwater quality data collected in the near the core of the plume is not utilized to assess adherence to ground water standards. Thus, the potential for false negatives for some low concentration compounds in this area of the plume would not have a significant impact on the conceptual site model.

### **3.00 LIMITATIONS**

The observations described in this report were made under the conditions stated herein. The conclusions presented in this report were based solely upon the services described herein, and not on scientific tasks or procedures beyond the proposed services. The work described in this report was conducted in accordance with the Terms and Conditions contained in our proposal.

The results and conclusions provided in the report are based on the specified groundwater and air sampling conducted and were arrived at in accordance with generally accepted standards of environmental and/or industrial hygiene investigations. Where sample analyses were conducted by an outside laboratory, GZA has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.

## TABLES

TABLE 1

GROUNDWATER AND SURFACE WATER ELEVATIONS - MARCH 2003  
General Chemical Corporation  
Framingham, Massachusetts

|          | Point<br>Elevation<br>(feet) | Depth to<br>Water<br>(feet) | Depth to<br>Water<br>(feet) | Depth to<br>SPG<br>(feet) | Groundwater<br>Elevation<br>(feet) |
|----------|------------------------------|-----------------------------|-----------------------------|---------------------------|------------------------------------|
| CDW-1    | 159.59                       | 12.3                        | NG                          | -                         | NG                                 |
| CDW-2    | 157.21                       | 12.5                        | NG                          | -                         | NG                                 |
| CDW-3    | 157.65                       | 11.1                        | NG                          | -                         | NG                                 |
| CDW-4    | 158.21                       | 6.7                         | >6.7                        | -                         | DRY                                |
| CDW-5    | 158.93                       | 12.7                        | NG                          | -                         | NG                                 |
| CDW-6    | 157.07                       | 11.1                        | NG                          | -                         | NG                                 |
| CDW-7    | 158.42                       | 10.4                        | NG                          | -                         | NG                                 |
| CDW-9    | 155.25                       | 7.4                         | NG                          | -                         | NG                                 |
| CDW-10   | 153.12                       | 11.0                        | NG                          | -                         | NG                                 |
| CDW-11   | 152.99                       | 11.3                        | NG                          | -                         | NG                                 |
| CDW-12   | 154.20                       | 19.9                        | NG                          | -                         | NG                                 |
| CDW-13   | 161.15                       | 14.7                        | NG                          | -                         | NG                                 |
| CDW-14   | 158.10                       | 11.6                        | NG                          | -                         | NG                                 |
| CDW-15   | 154.62                       | 11.2                        | NG                          | -                         | NG                                 |
| CDW-17   | 160.03                       | 11.9                        | NG                          | -                         | NG                                 |
| CDW-18S  | 153.57                       | 5.5                         | 2.74                        | -                         | 150.8                              |
| CDW-18D  | 153.78                       | 8.9                         | 3.24                        | -                         | 150.5                              |
| CDW-19S  | 152.63                       | 1.9                         | 1.50                        | -                         | 151.1                              |
| CDW-19D  | 154.91                       | 21.5                        | 4.02                        | -                         | 150.9                              |
| GZA 19DD | 154.15                       | 48.0                        | 2.72                        | -                         | 151.4                              |
| GZ-1     | 159.66                       | 70.0                        | 9.25                        | -                         | 150.4                              |
| GZ-2     | 161.18                       | 62.7                        | 10.23                       | -                         | 151.0                              |
| GZ-3     | 160.21                       | 49.0                        | 6.89                        | -                         | 153.3                              |
| GZ-4     | 158.84                       | 36.2                        | NG                          | -                         | NG                                 |
| GZ-4R    | 158.65                       | 62.7                        | NG                          | -                         | NG                                 |
| GZ-5S    | 156.12                       | 15.0                        | NG                          | -                         | NG                                 |
| GZ-5D    | 156.07                       | 40.1                        | NG                          | -                         | NG                                 |
| GZ-6     | 165.42                       | 19.3                        | 11.98                       | -                         | 153.4                              |
| GZ-7     | 161.40                       | 43.2                        | 8.75                        | -                         | 152.7                              |
| GZ-7R    | 161.74                       | 95.7                        | 11.87                       | -                         | 149.9                              |
| GZ-8     | 158.72                       | 11.5                        | NG                          | -                         | NG                                 |
| GZ-9     | 158.71                       | 10.1                        | NG                          | -                         | NG                                 |
| GZ-10    | 158.84                       | 7.7                         | NG                          | -                         | NG                                 |
| GZ-11    | 158.94                       | 9.9                         | NG                          | -                         | NG                                 |
| GZ-12    | 159.85                       | 9.9                         | NG                          | -                         | NG                                 |
| GZA 13   | 159.75                       | 11.5                        | NG                          | -                         | NG                                 |
| GZA 14S  | 155.35                       | 25.3                        | NG                          | -                         | NG                                 |
| GZA 14M  | 155.35                       | 79.0                        | NG                          | -                         | NG                                 |
| GZA 15S  | 156.47                       | 14.0                        | NG                          | -                         | NG                                 |
| GZA 15D  | 156.68                       | 34.0                        | NG                          | -                         | NG                                 |
| GZA 15R  | 156.51                       | 53.0                        | NG                          | -                         | NG                                 |

TABLE 1

## GROUNDWATER AND SURFACE WATER ELEVATIONS - MARCH 2003

General Chemical Corporation  
Framingham, Massachusetts

|          |        | Depth to<br>Ground<br>(feet) | Depth to<br>Water<br>(feet) | Depth to<br>Still<br>(feet) | Groundwater<br>Elevation<br>(feet) |
|----------|--------|------------------------------|-----------------------------|-----------------------------|------------------------------------|
| GZA 16S  | 158.54 | 12.0                         | NG                          | -                           | NG                                 |
| GZA 16M  | 158.77 | 50.0                         | NG                          | -                           | NG                                 |
| GZA 17S  | 158.18 | 14.0                         | NG                          | -                           | NG                                 |
| GZA 17M  | 158.06 | 50.0                         | NG                          | -                           | NG                                 |
| GZA 18S  | 158.35 | 14.0                         | NG                          | -                           | NG                                 |
| GZA 18M  | 158.31 | 45.5                         | NG                          | -                           | NG                                 |
| EW-1     | 159.07 | -                            | NG                          | -                           | NG                                 |
| EW-PZ-1  | 156.85 | 45.0                         | NG                          | -                           | NG                                 |
| EW-PZ-2S | 158.52 | 18.0                         | 6.77                        | -                           | 151.8                              |
| EW-PZ-2D | 158.37 | 43.0                         | 9.00                        | -                           | 149.4                              |
| PZ-1S    | 153.03 | 10.9                         | NG                          | -                           | NG                                 |
| PZ-1D    | 154.34 | 20.9                         | NG                          | -                           | NG                                 |
| PZ-2S    | 154.29 | 10.6                         | 3.75                        | -                           | 150.5                              |
| PZ-2D    | 154.72 | 15.3                         | 4.19                        | -                           | 150.5                              |
| PZ-3S    | 154.02 | 9.8                          | NG                          | -                           | NG                                 |
| PZ-3D    | 154.06 | 20.1                         | NG                          | -                           | NG                                 |
| SW-PZ3   | 153.88 | -                            | NG                          | -                           | NG                                 |
| PZ-4S    | 103.18 | 6.9                          | NG                          | -                           | NG                                 |
| PZ-4D    | 103.37 | 11.3                         | NG                          | -                           | NG                                 |
| FW-A     | -      | 15.1                         | NG                          | -                           | NG                                 |
| FW-17    | -      | 15.8                         | NG                          | -                           | NG                                 |
| SW-1     | 154.60 | -                            | NG                          | -                           | NG                                 |
| SW-2     | -      | -                            | NG                          | -                           | NG                                 |
| SW-3     | 154.01 | -                            | NG                          | -                           | NG                                 |
| SW-10    | 152.60 | 13.0                         | NG                          | -                           | NG                                 |
| ERM-4    | 159.53 | 12.8                         | NG                          | -                           | NG                                 |
| ERM-11   | 161.17 | 41.4                         | NG                          | -                           | NG                                 |
| ERM-12D  | 160.32 | 5.7                          | NG                          | -                           | NG                                 |
| MW-1     | 159.88 | 9.2                          | NG                          | -                           | NG                                 |
| MW-2     | 160.00 | 9.8                          | NG                          | -                           | NG                                 |
| MW-4     | 160.90 | -                            | NG                          | -                           | NG                                 |

## Notes:

1. Groundwater and surface water locations gauged by VERTEX on March 6, 2003
2. NG: Monitoring Well was inaccessible due to snow or ice, or is damaged and/or water in well was frozen and could not be gauged.
3. NA : Not Available in Previous Reports or Not Applicable
4. CDW-1 located in puddle, could not gauge.

TABLE 2

GROUNDWATER AND SURFACE WATER ELEVATIONS - JUNE 2003  
General Chemical Corporation  
Framingham, Massachusetts

|          |        | Depth to<br>Water<br>(feet) | Depth to<br>Water<br>(feet) | Depth to<br>Petroleum<br>(feet) | Groundwater<br>Elevation<br>(feet) |
|----------|--------|-----------------------------|-----------------------------|---------------------------------|------------------------------------|
| CDW-1    | 159.59 | 12.3                        | well destroyed              | -                               | -                                  |
| CDW-2    | 157.21 | 12.5                        | well destroyed              | -                               | -                                  |
| CDW-3    | 157.65 | 11.1                        | 1.30                        | -                               | 156.4                              |
| CDW-4    | 158.21 | 6.7                         | 3.24                        | -                               | 155.0                              |
| CDW-5    | 158.93 | 12.7                        | 1.26                        | -                               | 157.7                              |
| CDW-6    | 157.07 | 11.1                        | well destroyed              | -                               | -                                  |
| CDW-7    | 158.42 | 10.4                        | 0.00                        | -                               | 158.4                              |
| CDW-9    | 155.25 | 7.4                         | 0.56                        | -                               | 154.7                              |
| CDW-10   | 153.12 | 11.0                        | 1.28                        | -                               | 151.8                              |
| CDW-11   | 152.99 | 11.3                        | 0.54                        | -                               | 152.5                              |
| CDW-12   | 154.20 | 19.9                        | 1.54                        | -                               | 152.7                              |
| CDW-13   | 161.15 | 14.7                        | well not located            | -                               | -                                  |
| CDW-14   | 158.10 | 11.6                        | 3.05                        | -                               | 155.1                              |
| CDW-15   | 154.62 | 11.2                        | 3.59                        | -                               | 151.0                              |
| CDW-17   | 160.03 | 11.9                        | 2.14                        | -                               | 157.9                              |
| CDW-18S  | 153.57 | 5.5                         | 0.00                        | -                               | 153.6                              |
| CDW-18D  | 153.78 | 8.9                         | 0.40                        | -                               | 153.4                              |
| CDW-19S  | 152.63 | 1.9                         | 0.50                        | -                               | 152.1                              |
| CDW-19D  | 154.91 | 21.5                        | 3.09                        | -                               | 151.8                              |
| GZA-19DD | 154.15 | 48.0                        | 0.90                        | -                               | 153.3                              |
| GZ-1     | 159.66 | 70.0                        | 4.74                        | -                               | 154.9                              |
| GZ-2     | 161.18 | 62.7                        | 4.36                        | -                               | 156.8                              |
| GZ-3     | 160.21 | 49.0                        | well damaged                | -                               | -                                  |
| GZ-4     | 158.84 | 36.2                        | 6.80                        | -                               | 152.0                              |
| GZ-4R    | 158.65 | 62.7                        | 7.16                        | -                               | 151.5                              |
| GZ-5S    | 156.12 | 15.0                        | 2.47                        | -                               | 153.7                              |
| GZ-5D    | 156.07 | 40.1                        | 1.13                        | -                               | 154.9                              |
| GZ-6     | 165.42 | 19.3                        | 8.00                        | -                               | 157.4                              |
| GZ-7     | 161.40 | 43.2                        | 3.93                        | -                               | 157.5                              |
| GZ-7R    | 161.74 | 95.7                        | 7.32                        | -                               | 154.4                              |
| GZ-8     | 158.72 | 11.5                        | well under roll off         | -                               | -                                  |
| GZ-9     | 158.71 | 10.1                        | 0.58                        | -                               | 158.1                              |
| GZ-10    | 158.84 | 7.7                         | 0.70                        | -                               | 158.1                              |
| GZ-11    | 158.94 | 9.9                         | 0.60                        | -                               | 158.3                              |
| GZ-12    | 159.85 | 9.9                         | well destroyed              | -                               | -                                  |
| GZA-13   | 159.75 | 14.0                        | 2.02                        | -                               | 157.7                              |
| GZA-14S  | 155.35 | 25.3                        | 3.26                        | -                               | 152.1                              |
| GZA-14M  | 155.35 | 78.0                        | 3.23                        | -                               | 152.1                              |
| GZA-15S  | 156.47 | 14.0                        | 5.65                        | -                               | 150.8                              |
| GZA-15D  | 156.68 | 34.0                        | 4.51                        | -                               | 152.2                              |
| GZA-15R  | 156.51 | 53.0                        | 4.21                        | -                               | 152.3                              |



TABLE 2

GROUNDWATER AND SURFACE WATER ELEVATIONS - JUNE 2003  
General Chemical Corporation  
Framingham, Massachusetts

|          | Grounding Point<br>(feet) | Depth to<br>Petroleum<br>(feet) | Depth to<br>Water<br>(feet) | Depth to<br>Petroleum<br>(feet) | Groundwater<br>Elevation<br>(feet) |
|----------|---------------------------|---------------------------------|-----------------------------|---------------------------------|------------------------------------|
| GZA-16S  | 158.54                    | 12.0                            | Obstruction at 3.7'         |                                 | -                                  |
| GZA-16M  | 158.77                    | 50.0                            | 5.41                        |                                 | 153.4                              |
| GZA-17S  | 158.18                    | 14.0                            | 5.19                        |                                 | 153.0                              |
| GZA-17M  | 158.06                    | 50.0                            | 4.88                        |                                 | 153.2                              |
| GZA-18S  | 158.35                    | 14.0                            | 5.10                        |                                 | 153.3                              |
| GZA-18M  | 158.31                    | 45.5                            | 3.14                        |                                 | 155.2                              |
| EW-1     | 159.07                    | 45.1                            | 3.07                        |                                 | 156.0                              |
| EW-PZ-1  | 156.85                    | 45.0                            | well not located            |                                 | -                                  |
| EW-PZ-2S | 158.37                    | 18.0                            | 3.50                        |                                 | 154.9                              |
| EW-PZ-2D | 158.52                    | 43.0                            | 2.49                        |                                 | 156.0                              |
| PZ-1S    | 153.03                    | 10.9                            | 1.95                        | -                               | 151.1                              |
| PZ-1D    | 154.34                    | 20.9                            | 2.92                        | -                               | 151.4                              |
| PZ-2S    | 154.29                    | 10.6                            | 2.86                        | -                               | 151.4                              |
| PZ-2D    | 154.72                    | 15.3                            | 3.32                        | -                               | 151.4                              |
| PZ-3S    | 154.02                    | 9.8                             | 2.99                        | -                               | 151.0                              |
| PZ-3D    | 154.06                    | 20.1                            | 2.98                        | -                               | 151.1                              |
| SW-PZ3   | 153.88                    | -                               | 3.59                        | -                               | 150.3                              |
| PZ-4S    | 103.18                    | 6.9                             | 2.91                        | -                               | 100.3                              |
| PZ-4D    | 103.37                    | 11.3                            | 3.58                        | -                               | 99.8                               |
| FW-A     | -                         | 15.1                            | 7.21                        | -                               | -                                  |
| FW-17    | -                         | 15.8                            | well casing bent            | -                               | -                                  |
| SW-1     | 154.60                    | -                               | 2.78                        | -                               | 151.8                              |
| SW-2     | -                         | -                               | 3.95                        | -                               | -                                  |
| SW-3     | 154.01                    | -                               | 3.30                        | -                               | 150.7                              |
| SW-10    | 152.60                    | 13.0                            | 1.72                        | -                               | 150.9                              |
| ERM-4    | 159.53                    | 12.8                            | 2.11                        | -                               | 157.4                              |
| ERM-11   | 161.17                    | 41.4                            | 3.27                        | -                               | 157.9                              |
| ERM-12D  | 160.32                    | 5.7                             | 3.08                        | -                               | 157.2                              |
| MW-1     | 159.88                    | 9.2                             | well destroyed              | -                               | -                                  |
| MW-2     | 160.00                    | 9.8                             | 4.52                        | -                               | 155.5                              |
| MW-4     | 160.90                    | -                               | 4.08                        | -                               | 156.8                              |

**Notes:**

1. Groundwater and surface water locations were gauged by GZA personnel on June 2, 2003.
2. Note: Elevation data based on Massachusetts Coordinate System (NAD27).
3. The casing for MW-1 was bent, and a water level reading was not obtained.
4. GZ-12 was completely obstructed at 0.1 feet below ground surface.
5. There was a roll off parked on ERM-4, and a water level reading was not obtained.
6. The 0.5 inch above surface casing on FW-17 was bent and an interface probe could not fit down the casing. A water level reader was used to gauge the well so LNAPL could not be detected.

TABLE 3

## GROUNDWATER ANALYTICAL RESULTS

General Chemical Corporation  
Framingham, Massachusetts

|                          |      |      |      |      |      |      |       |      |      |      |
|--------------------------|------|------|------|------|------|------|-------|------|------|------|
| Tetrachloroethene        | 3.9  | <1.0 | <1.0 | <1.0 | 1.6  | 7.2  | 780   | <1.0 | <1.0 | <1.0 |
| Trichloroethene          | 25   | <1.0 | <1.0 | <1.0 | <1.0 | 10   | 1200  | <1.0 | <1.0 | 2.0  |
| cis-1,2-Dichloroethene   | 740  | <1.0 | <1.0 | <1.0 | 1.5  | <1.0 | 17    | <1.0 | <1.0 | 1.2  |
| Vinyl Chloride           | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10   | <1.0 | <1.0 | <1.0 |
| 1,1,1-Trichloroethane    | 120  | <1.0 | <1.0 | <1.0 | 1.1  | 2.8  | 130   | <1.0 | <1.0 | <1.0 |
| 1,1,1-Dichloroethane     | 28   | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 230   | <1.0 | <1.0 | <1.0 |
| 1,4-Dioxane              | <100 | <50  | <50  | <50  | <50  | <50  | <500  | <50  | <50  | <50  |
| Acetone                  | <25  | <25  | <25  | <25  | <25  | <25  | <250  | <25  | <25  | <25  |
| Dichloromethane          | 1.7  | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10   | <1.0 | <1.0 | <1.0 |
| 1,1-Dichloroethene       | 4.2  | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 210   | <1.0 | <1.0 | <1.0 |
| trans-1,2-Dichloroethene | 7.4  | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10   | <1.0 | <1.0 | <1.0 |
| 2-Butanone               | <25  | <25  | <25  | <25  | <25  | <25  | <250  | <25  | <25  | <25  |
| 1,2-Dichloroethane       | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10   | <1.0 | <1.0 | <1.0 |
| Benzene                  | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10   | <1.0 | <1.0 | <1.0 |
| Toluene                  | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 17    | <1.0 | <1.0 | <1.0 |
| 1,1,2-Trichloroethane    | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10   | <1.0 | <1.0 | <1.0 |
| Ethylbenzene             | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10   | <1.0 | <1.0 | <1.0 |
| m&p-Xylene               | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10   | <1.0 | <1.0 | <1.0 |
| o-Xylene                 | <1.0 | <1.0 | <1.0 | 3.7  | <1.0 | <1.0 | <10   | <1.0 | <1.0 | <1.0 |
| Styrene                  | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10   | <1.0 | <1.0 | <1.0 |
| Isopropylbenzene         | <1.0 | <1.0 | <1.0 | 1.8  | <1.0 | <1.0 | <10   | <1.0 | <1.0 | <1.0 |
| 1,2,4-trimethylbenzene   | <1.0 | <1.0 | <1.0 | 7.4  | <1.0 | <1.0 | <10   | <1.0 | <1.0 | <1.0 |
| Naphthalene              | <1.0 | <1.0 | <1.0 | 1.7  | <1.0 | <1.0 | <10   | <1.0 | <1.0 | <1.0 |
| Methyl-Tert-Butyl-Ether  | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <10   | <1.0 | <1.0 | <1.0 |
| Total VOCs               | 930  | BMQL | BMQL | 15   | 4.2  | 20   | 2,584 | 54   | BMQL | 3.2  |

## Notes:

1. Samples were collected by GZA personnel from June 2-4, 2003.
2. Analyses performed by GZA's Environmental Chemistry Laboratory (ECL) in Hopkinton, Massachusetts via EPA Method 8260.
3. Concentrations are in ug/L (ppb). Only compounds detected during the last year of sampling are reported.
4. "BMQL" = Below Method Quantitation Limit (see laboratory data sheets for additional information)

TABLE 3

GROUNDWATER ANALYTICAL RESULTS  
General Chemical Corporation  
Framingham, Massachusetts

|                          | <1.0 | 12,000  | 10,000  | <1.0 | 390    | <1.0 | <1.0 | <1.0 | <1.0 |
|--------------------------|------|---------|---------|------|--------|------|------|------|------|
| Tetrachloroethene        | <1.0 | 7,700   | 7,000   | <1.0 | 4100   | <1.0 | <1.0 | <1.0 | <1.0 |
| Trichloroethene          | <1.0 | 44,000  | 33,000  | <1.0 | 500    | <1.0 | <1.0 | <1.0 | <1.0 |
| cis-1,2-Dichloroethene   | <1.0 | <250    | <250    | <1.0 | 30     | <1.0 | <1.0 | <1.0 | <1.0 |
| Vinyl Chloride           | <1.0 | 14,000  | 11,000  | <1.0 | 38     | <1.0 | <1.0 | <1.0 | <1.0 |
| 1,1,1-Trichloroethane    | <1.0 | 1,000   | 810     | <1.0 | 99     | <1.0 | <1.0 | <1.0 | <1.0 |
| 1,1-Dichloroethane       | <50  | <13,000 | <13,000 | <50  | <2,500 | <50  | <50  | <50  | <50  |
| 1,4-Dioxane              | <25  | <6,300  | <6,300  | <25  | <630   | <25  | <25  | <25  | <25  |
| Acetone                  | <1.0 | 22,000  | 18,000  | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| Dichloromethane          | <1.0 | 4,600   | 3,500   | <1.0 | 300    | <1.0 | <1.0 | <1.0 | <1.0 |
| 1,1-Dichloroethene       | <1.0 | <250    | <250    | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| trans-1,2-Dichloroethene | <25  | <6,300  | <6,300  | <25  | <630   | <25  | <25  | <25  | <25  |
| 2-Butanone               | <1.0 | <250    | <250    | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| 1,2-Dichloroethane       | <1.0 | <250    | <250    | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| Benzene                  | <1.0 | <250    | <250    | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| Toluene                  | <1.0 | <250    | <250    | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| 1,1,2-Trichloroethane    | <1.0 | <250    | <250    | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| Ethylbenzene             | <1.0 | <250    | <250    | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| m&p-Xylene               | <1.0 | <250    | <250    | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| o-Xylene                 | <1.0 | <250    | <250    | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| Styrene                  | <1.0 | <250    | <250    | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| Isopropylbenzene         | <1.0 | <250    | <250    | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| 1,2,4-trimethylbenzene   | <1.0 | <250    | <250    | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| Naphthalene              | <1.0 | <250    | <250    | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| Methyl-Tert-Butyl-Ether  | <1.0 | <250    | <250    | <1.0 | <25    | <1.0 | <1.0 | <1.0 | <1.0 |
| Total VOCs               | BMQL | 105,300 | 83,310  | BMQL | 5,457  | BMQL | BMQL | BMQL | BMQL |

Notes:

1. Samples were collected by GZA personnel from June 2-4, 2003.
2. Analyses performed by GZA's Environmental Chemistry Laboratory (ECL) in Hopkinton, Massachusetts via EPA Method
3. Concentrations are in ug/L (ppb). Only compounds detected during the last year of sampling are reported.
4. "BMQL" = Below Method Quantitation Limit (see laboratory data sheets for additional information).

TABLE 4

File No. 15861.12

## SURFACE WATER ANALYTICAL RESULTS

General Chemical Corporation  
Framingham, Massachusetts

|                          | SC-1<br>2/2/2003 | SW-1<br>5/2/2003 | SW-10<br>5/2/2003 |
|--------------------------|------------------|------------------|-------------------|
| Tetrachloroethene        | 14               | 2.8              | <1.0              |
| Trichloroethene          | 22               | 4.4              | 1.1               |
| cis-1,2-Dichloroethene   | 120              | 30               | 6.5               |
| Vinyl Chloride           | 8.8              | 1.8              | <1.0              |
| 1,1,1-Trichloroethane    | 34               | 7.9              | 1.6               |
| 1,1-Dichloroethane       | 12               | 2.6              | <1.0              |
| 1,4-Dioxane              | 67               | <50              | <50               |
| Acetone                  | <25              | <25              | <25               |
| Dichloromethane          | 16               | 3.7              | <1.0              |
| 1,1-Dichloroethene       | 7.8              | 1.7              | <1.0              |
| trans-1,2-Dichloroethene | <1.0             | <1.0             | <1.0              |
| 2-Butanone               | <25              | <25              | <25               |
| 1,2-Dichloroethane       | <1.0             | <1.0             | <1.0              |
| Benzene                  | <1.0             | <1.0             | <1.0              |
| Toluene                  | <1.0             | <1.0             | <1.0              |
| 1,1,2-Trichloroethane    | <1.0             | <1.0             | <1.0              |
| Ethylbenzene             | <1.0             | <1.0             | <1.0              |
| m&p-Xylene               | <1.0             | <1.0             | <1.0              |
| o-Xylene                 | <1.0             | <1.0             | <1.0              |
| Styrene                  | <1.0             | <1.0             | <1.0              |
| Isopropylbenzene         | <1.0             | <1.0             | <1.0              |
| 1,2,4-Trimethylbenzene   | <1.0             | <1.0             | <1.0              |
| Naphthalene              | <1.0             | <1.0             | <1.0              |
| Methyl-Tert-Butyl-Ether  | <1.0             | <1.0             | <1.0              |
| Total VOCs               | 302              | 55               | 9.2               |

## Notes:

1. Samples were collected by GZA personnel from June 2-4, 2003.
2. Analyses performed by GZA's Environmental Chemistry Laboratory (ECL) in Hopkinton, Massachusetts via EPA Method 8260.
3. Concentrations are in ug/L (ppb). Only compounds detected during the last year of sampling are reported.
4. "BMQL" = Below Method Quantitation Limit  
(see laboratory data sheets for additional information).

IA15861.1QTV15861-12.kat(AMR)\CORRESP\Jun03AMR\Report\Table3\_4.xls\wells

## FIGURES



\\15861-10T\15861-12 kat\AMR\CORRESP\Jun03\AMR\Figures\F01\_15861-26\_SiteLocus.mxd



SOURCE: SCANNED USGS TOPOGRAPHIC QUADRANGLES  
SCANNED BY THE MASSACHUSETTS EXECUTIVE OFFICE OF  
ENVIRONMENTAL AFFAIRS, MASSGIS. DISTRIBUTED JUNE, 2001.

Data Supplied by:



0 1,000 2,000 4,000 6,000  
Feet



PROJ. MGR.: MJB  
DESIGNED BY: MHS  
REVIEWED BY: MJB  
OPERATOR: EMD

DATE: 11/05/03

## LOCUS PLAN

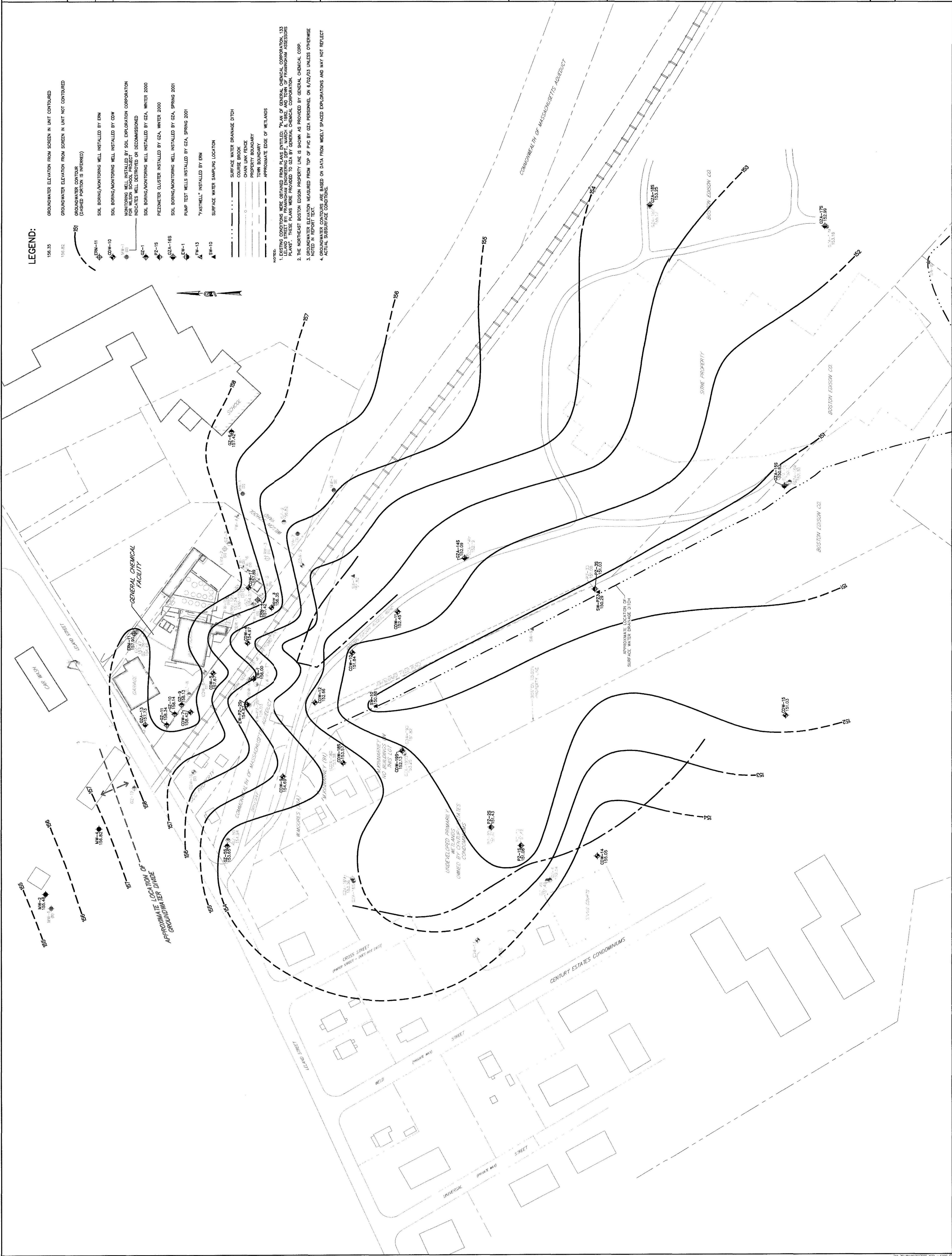
ASSESSMENT MONITORING REPORT  
GENERAL CHEMICAL CORPORATION  
FRAMINGHAM, MASSACHUSETTS

JOB NO.  
15861.26

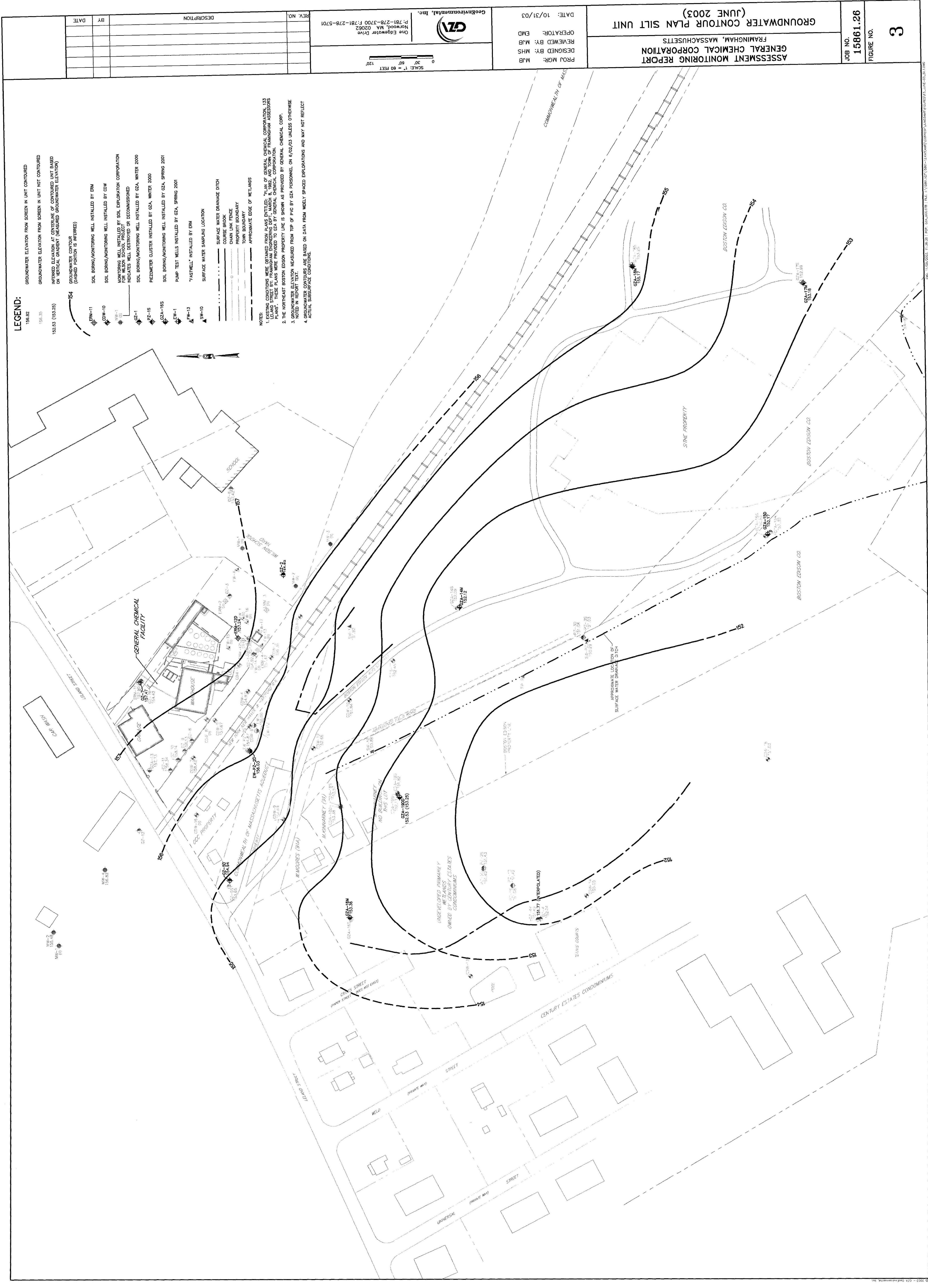
FIGURE NO.  
1



| REV. NO. | DESCRIPTION | BY | DATE |
|----------|-------------|----|------|
|          |             |    |      |
|          |             |    |      |
|          |             |    |      |
|          |             |    |      |









**APPENDIX A**

**GROUNDWATER AND SURFACE WATER LABORATORY ANALYTICAL REPORTS  
AND ASSOCIATED DOCUMENTATION**

**GZA GeoEnvironmental, Inc.**  
**106 South Street**  
**Hopkinton, MA 01748**  
**(781) 278-4700**

Laboratory Identification Numbers:  
MA: MA092 NH: 2028 RI: 236  
CT: PH0579 OK: 9928 NC: 615  
NY (NELAC): 11063

**ANALYTICAL DATA REPORT**

GZA GeoEnvironmental, Inc.  
One Edgewater Drive  
Norwood, MA 02062  
781-278-3700  
Maryann Sapanara

Project No.: 01.0015861.26  
Work Order No.: 0306-00006  
Date Received: 6/03/03  
Date Reported: 6/11/03

**SAMPLE INFORMATION**

| Date Sampled | Matrix  | Laboratory ID  | Sample ID |
|--------------|---------|----------------|-----------|
| 6/02/2003    | Aqueous | 0306-00006 001 | SW - 3    |
| 6/02/2003    | Aqueous | 0306-00006 002 | DSC - 1   |
| 6/02/2003    | Aqueous | 0306-00006 003 | PZ - 1S   |
| 6/02/2003    | Aqueous | 0306-00006 004 | PZ - 2S   |
| 6/02/2003    | Aqueous | 0306-00006 005 | GZ - 16M  |
| 6/02/2003    | Aqueous | 0306-00006 006 | USA - 1   |
| 6/02/2003    | Aqueous | 0306-00006 007 | SW - 10   |
| 6/02/2003    | Aqueous | 0306-00006 008 | Tripblank |

GZA GeoEnvironmental, Inc.  
106 South Street  
Hopkinton, MA 01748

## ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.  
One Edgewater Drive  
Norwood, MA 02062

Maryann Sapanara

Project Name: General Chemical  
Project No.: 01.0015861.26

Date Received: 6/03/03  
Date Reported: 6/11/03  
Work Order No.: 0306-00006

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### PROJECT NARRATIVE:

#### 1. Sample Receipt

The samples were received on 06/03/03 via   x   GZA courier,    EC,    FEDEX, or    hand delivered.  
The temperature of the    temperature blank,   X   cooler air was 2.2 degrees C. The samples were received intact for all requested analyses.

The samples were appropriately preserved in accordance with the method they reference.

The Chain of Custody has been modified to reflect new Project Numbers.

#### 2. EPA Method 8260

Attach QC 8260 06/10/03 - Aqueous



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Project Name: General Chemical  
Project No.: 01.0015861.26

Date Received: 6/03/03  
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ANALYTICAL REPORT CERTIFICATION:

Were all QA/QC procedures required for the specified analytical method(s) included in this report followed?

Yes ☒ No ☐  
(if "No" must address in narrative.  
Attach additional information if required.)

Were all QA/QC performance standards for specified analytical methods(s) included in this report met (including those not required to be reported)?

Yes ☒ No ☐  
(if "No" must address in narrative.  
Attach additional information if required.)

Were all contaminants identified and quantified by the laboratory in the course of this analysis of field samples by comparison to a calibration standard, even if not a requested analyte, reported by the laboratory to the person that requested the analysis?

Yes ☒ No ☐  
(if "No" must address in narrative.  
Attach additional information if required.)

Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation?

Yes ☒ No ☐  
(if "No" must address in narrative.  
Attach additional information if required.)

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature:



Date:

6/11/03

Printed Name: Kathryn Walsh

Position: Laboratory Supervisor

GZA GeoEnvironmental, Inc.  
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## ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.  
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Maryann Sapanara

Project Name: General Chemical  
Project No.: 01.0015861.26

Date Received: 6/03/03  
Date Reported: 6/11/03  
Work Order No.: 0306-00006

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### LABORATORY STATEMENTS:

#### Abbreviations:

% R = % Recovery  
DF = Dilution Factor  
DO = Diluted Out

#### Method Key:

Method 8260: The current version of the method is 8260B.  
Method 8021: The current version of the method is 8021B.  
Method 8270: The current version of the method is 8270C.  
Method 6010: The current version of the method is 6010B.

Soil data is reported on a dry weight basis unless otherwise specified.

Matrix Spike / Matrix Spike Duplicate sets are performed as per method and are reported at the end of the analytical report if assigned on the Chain of Custody.

GZA GeoEnvironmental, Inc.  
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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.  
One Edgewater Drive  
Norwood, MA 02062

Maryann Sapanara

Project Name: General Chemical  
Project No.: 01.0015861.26

Date Received: 6/03/03  
Date Reported: 6/11/03  
Work Order No.: 0306-00006

Sample ID: SW - 3  
Sample Date: 6/02/2003

Sample No.: 001

| Test Performed           | Method   | Results | Units | Tech | Analysis Date |
|--------------------------|----------|---------|-------|------|---------------|
| VOLATILE ORGANICS        | EPA 8260 |         |       | MQS  | 6/10/03       |
| Dichlorodifluoromethane  | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Chloromethane            | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Vinyl Chloride           | EPA 8260 | 8.8     | ug/L  | MQS  | 6/10/03       |
| Bromomethane             | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Chloroethane             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Trichlorofluoromethane   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Diethylether             | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| Acetone                  | EPA 8260 | <25     | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethene       | EPA 8260 | 7.8     | ug/L  | MQS  | 6/10/03       |
| Dichloromethane          | EPA 8260 | 16      | ug/L  | MQS  | 6/10/03       |
| Methyl-Tert-Butyl-Ether  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| trans-1,2-Dichloroethene | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethane       | EPA 8260 | 12      | ug/L  | MQS  | 6/10/03       |
| 2-Butanone               | EPA 8260 | <25     | ug/L  | MQS  | 6/10/03       |
| 2,2-Dichloropropane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| cis-1,2-Dichloroethene   | EPA 8260 | 120     | ug/L  | MQS  | 6/10/03       |
| Chloroform               | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromochloromethane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Tetrahydrofuran          | EPA 8260 | <10     | ug/L  | MQS  | 6/10/03       |
| 1,1,1-Trichloroethane    | EPA 8260 | 34      | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloropropene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Carbon Tetrachloride     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloroethane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Benzene                  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Trichloroethene          | EPA 8260 | 22      | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloropropane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromodichloromethane     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,4-Dioxane              | EPA 8260 | 67      | \     | MQS  | 6/10/03       |
| Dibromomethane           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 4-Methyl-2-Pentanone     | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| cis-1,3-Dichloropropene  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |

GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical  
 Project No.: 01.0015861.26

Work Order No.: 0306-00006

Sample ID: SW - 3  
 Sample Date: 6/02/2003

Sample No.: 001

| Test Performed              | Method   | Results | Units | Tech | Analysis Date |
|-----------------------------|----------|---------|-------|------|---------------|
| Toluene                     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| trans-1,3-Dichloropropene   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,2-Trichloroethane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 2-Hexanone                  | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichloropropane         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Tetrachloroethene           | EPA 8260 | 14      | ug/L  | MQS  | 6/10/03       |
| Dibromochloromethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromoethane (EDB)     | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Chlorobenzene               | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,1,2-Tetrachloroethane   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Ethylbenzene                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| m&p-Xylene                  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| o-Xylene                    | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Styrene                     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromoform                   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Isopropylbenzene            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,2,2-Tetrachloroethane   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichloropropane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromobenzene                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| N-Propylbenzene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 2-Chlorotoluene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,3,5-Trimethylbenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 4-Chlorotoluene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| tert-Butylbenzene           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trimethylbenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| sec-Butylbenzene            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| p-Isopropyltoluene          | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,4-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| n-Butylbenzene              | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromo-3-Chloropropane | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trichlorobenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Hexachlorobutadiene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Naphthalene                 | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichlorobenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Surrogates:                 | EPA 8260 |         |       |      |               |
| ***1,2-Dichloroethane-D4    | EPA 8260 | 101     | % R   | MQS  | 6/10/03       |
| ***Toluene-D8               | EPA 8260 | 106     | % R   | MQS  | 6/10/03       |
| ***4-Bromofluorobenzene     | EPA 8260 | 101     | % R   | MQS  | 6/10/03       |
| Preparation                 |          | 1.0     | DF    | MQS  | 6/10/03       |



GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical  
 Project No.: 01.0015861.26

Work Order No.: 0306-00006

Sample ID: DSC - 1  
 Sample Date: 6/02/2003

Sample No.: 002

| Test Performed            | Method   | Results | Units | Tech | Analysis Date |
|---------------------------|----------|---------|-------|------|---------------|
| VOLATILE ORGANICS         | EPA 8260 |         |       | MQS  | 6/10/03       |
| Dichlorodifluoromethane   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Chloromethane             | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Vinyl Chloride            | EPA 8260 | 1.8     | ug/L  | MQS  | 6/10/03       |
| Bromomethane              | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Chloroethane              | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Trichlorofluoromethane    | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Diethylether              | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| Acetone                   | EPA 8260 | <25     | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethene        | EPA 8260 | 1.7     | ug/L  | MQS  | 6/10/03       |
| Dichloromethane           | EPA 8260 | 3.7     | ug/L  | MQS  | 6/10/03       |
| Methyl-Tert-Butyl-Ether   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| trans-1,2-Dichloroethene  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethane        | EPA 8260 | 2.6     | ug/L  | MQS  | 6/10/03       |
| 2-Butanone                | EPA 8260 | <25     | ug/L  | MQS  | 6/10/03       |
| 2,2-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| cis-1,2-Dichloroethene    | EPA 8260 | 30      | ug/L  | MQS  | 6/10/03       |
| Chloroform                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromochloromethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Tetrahydrofuran           | EPA 8260 | <10     | ug/L  | MQS  | 6/10/03       |
| 1,1,1-Trichloroethane     | EPA 8260 | 7.9     | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloropropene       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Carbon Tetrachloride      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloroethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Benzene                   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Trichloroethene           | EPA 8260 | 4.4     | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromodichloromethane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,4-Dioxane               | EPA 8260 | <50     | ug/L  | MQS  | 6/10/03       |
| Dibromomethane            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 4-Methyl-2-Pentanone      | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| cis-1,3-Dichloropropene   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Toluene                   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| trans-1,3-Dichloropropene | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,2-Trichloroethane     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 2-Hexanone                | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Tetrachloroethene         | EPA 8260 | 2.8     | ug/L  | MQS  | 6/10/03       |
| Dibromochloromethane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromoethane (EDB)   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |

## ANALYTICAL REPORT

Project Name: General Chemical

Project No.: 01.0015861.26

Work Order No.: 0306-00006

Sample ID: DSC - 1  
Sample Date: 6/02/2003

Sample No.: 002

| Test Performed              | Method   | Results | Units | Tech | Analysis Date |
|-----------------------------|----------|---------|-------|------|---------------|
| Chlorobenzene               | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,1,2-Tetrachloroethane   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Ethylbenzene                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| m&p-Xylene                  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| o-Xylene                    | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Styrene                     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromoform                   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Isopropylbenzene            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,2,2-Tetrachloroethane   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichloropropane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromobenzene                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| N-Propylbenzene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 2-Chlorotoluene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,3,5-Trimethylbenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 4-Chlorotoluene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| tert-Butylbenzene           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trimethylbenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| sec-Butylbenzene            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| p-Isopropyltoluene          | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,4-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| n-Butylbenzene              | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromo-3-Chloropropane | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trichlorobenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Hexachlorobutadiene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Naphthalene                 | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichlorobenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Surrogates:                 | EPA 8260 |         |       |      |               |
| ***1,2-Dichloroethane-D4    | EPA 8260 | 108     | % R   | MQS  | 6/10/03       |
| ***Toluene-D8               | EPA 8260 | 114     | % R   | MQS  | 6/10/03       |
| ***4-Bromofluorobenzene     | EPA 8260 | 101     | % R   | MQS  | 6/10/03       |
| Preparation                 |          | 1.0     | DF    | MQS  | 6/10/03       |

GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical

Project No.: 01.0015861.26

Work Order No.: 0306-00006

Sample ID: PZ - 1S

Sample No.: 003

Sample Date: 6/02/2003

| Test Performed            | Method   | Results | Units | Tech | Analysis Date |
|---------------------------|----------|---------|-------|------|---------------|
| VOLATILE ORGANICS         | EPA 8260 |         |       | MQS  | 6/10/03       |
| Dichlorodifluoromethane   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Chloromethane             | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Vinyl Chloride            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromomethane              | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Chloroethane              | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Trichlorofluoromethane    | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Diethylether              | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| Acetone                   | EPA 8260 | <25     | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethene        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Dichloromethane           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Methyl-Tert-Butyl-Ether   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| trans-1,2-Dichloroethene  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 2-Butanone                | EPA 8260 | <25     | ug/L  | MQS  | 6/10/03       |
| 2,2-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| cis-1,2-Dichloroethene    | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Chloroform                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromochloromethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Tetrahydrofuran           | EPA 8260 | <10     | ug/L  | MQS  | 6/10/03       |
| 1,1,1-Trichloroethane     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloropropene       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Carbon Tetrachloride      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloroethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Benzene                   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Trichloroethene           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromodichloromethane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,4-Dioxane               | EPA 8260 | <50     | ug/L  | MQS  | 6/10/03       |
| Dibromomethane            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 4-Methyl-2-Pentanone      | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| cis-1,3-Dichloropropene   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Toluene                   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| trans-1,3-Dichloropropene | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,2-Trichloroethane     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 2-Hexanone                | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Tetrachloroethene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Dibromochloromethane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromoethane (EDB)   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |

GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical  
 Project No.: 01.0015861.26

Work Order No.: 0306-00006

Sample ID: PZ - 1S  
 Sample Date: 6/02/2003

Sample No.: 003

| Test Performed              | Method   | Results | Units | Tech | Analysis Date |
|-----------------------------|----------|---------|-------|------|---------------|
| Chlorobenzene               | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,1,2-Tetrachloroethane   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Ethylbenzene                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| m&p-Xylene                  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| o-Xylene                    | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Styrene                     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromoform                   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Isopropylbenzene            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,2,2-Tetrachloroethane   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichloropropane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromobenzene                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| N-Propylbenzene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 2-Chlorotoluene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,3,5-Trimethylbenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 4-Chlorotoluene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| tert-Butylbenzene           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trimethylbenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| sec-Butylbenzene            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| p-Isopropyltoluene          | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,4-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| n-Butylbenzene              | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromo-3-Chloropropane | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trichlorobenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Hexachlorobutadiene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Naphthalene                 | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichlorobenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Surrogates:                 | EPA 8260 |         |       |      |               |
| ***1,2-Dichloroethane-D4    | EPA 8260 | 107     | % R   | MQS  | 6/10/03       |
| ***Toluene-D8               | EPA 8260 | 115     | % R   | MQS  | 6/10/03       |
| ***4-Bromofluorobenzene     | EPA 8260 | 99.9    | % R   | MQS  | 6/10/03       |
| Preparation                 |          | 1.0     | DF    | MQS  | 6/10/03       |



GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical  
 Project No.: 01.0015861.26

Work Order No.: 0306-00006

Sample ID: PZ - 2S  
 Sample Date: 6/02/2003

Sample No.: 004

| Test Performed            | Method   | Results | Units | Tech | Analysis Date |
|---------------------------|----------|---------|-------|------|---------------|
| VOLATILE ORGANICS         | EPA 8260 |         |       | MQS  | 6/10/03       |
| Dichlorodifluoromethane   | EPA 8260 | < 50    | ug/L  | MQS  | 6/10/03       |
| Chloromethane             | EPA 8260 | < 50    | ug/L  | MQS  | 6/10/03       |
| Vinyl Chloride            | EPA 8260 | 30      | ug/L  | MQS  | 6/10/03       |
| Bromomethane              | EPA 8260 | < 50    | ug/L  | MQS  | 6/10/03       |
| Chloroethane              | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| Trichlorofluoromethane    | EPA 8260 | < 50    | ug/L  | MQS  | 6/10/03       |
| Diethylether              | EPA 8260 | < 130   | ug/L  | MQS  | 6/10/03       |
| Acetone                   | EPA 8260 | < 630   | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethene        | EPA 8260 | 300     | ug/L  | MQS  | 6/10/03       |
| Dichloromethane           | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| Methyl-Tert-Butyl-Ether   | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| trans-1,2-Dichloroethene  | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethane        | EPA 8260 | 99      | ug/L  | MQS  | 6/10/03       |
| 2-Butanone                | EPA 8260 | < 630   | ug/L  | MQS  | 6/10/03       |
| 2,2-Dichloropropane       | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| cis-1,2-Dichloroethene    | EPA 8260 | 500     | ug/L  | MQS  | 6/10/03       |
| Chloroform                | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| Bromochloromethane        | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| Tetrahydrofuran           | EPA 8260 | < 250   | ug/L  | MQS  | 6/10/03       |
| 1,1,1-Trichloroethane     | EPA 8260 | 38      | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloropropene       | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| Carbon Tetrachloride      | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloroethane        | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| Benzene                   | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| Trichloroethene           | EPA 8260 | 4100    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloropropane       | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| Bromodichloromethane      | EPA 8260 | < 13    | ug/L  | MQS  | 6/10/03       |
| 1,4-Dioxane               | EPA 8260 | < 2500  | ug/L  | MQS  | 6/10/03       |
| Dibromomethane            | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| 4-Methyl-2-Pentanone      | EPA 8260 | < 50    | ug/L  | MQS  | 6/10/03       |
| cis-1,3-Dichloropropene   | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| Toluene                   | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| trans-1,3-Dichloropropene | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| 1,1,2-Trichloroethane     | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| 2-Hexanone                | EPA 8260 | < 50    | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichloropropane       | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| Tetrachloroethene         | EPA 8260 | 390     | ug/L  | MQS  | 6/10/03       |
| Dibromochloromethane      | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromoethane (EDB)   | EPA 8260 | < 50    | ug/L  | MQS  | 6/10/03       |

## ANALYTICAL REPORT

Project Name: General Chemical

Project No.: 01.0015861.26

Work Order No.: 0306-00006

| Sample ID: PZ - 2S          | Sample No.: 004 |         |       |      |               |
|-----------------------------|-----------------|---------|-------|------|---------------|
| Sample Date: 6/02/2003      |                 |         |       |      |               |
| Test Performed              | Method          | Results | Units | Tech | Analysis Date |
| Chlorobenzene               | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| 1,1,1,2-Tetrachloroethane   | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| Ethylbenzene                | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| m&p-Xylene                  | EPA 8250        | <25     | ug/L  | MQS  | 6/10/03       |
| o-Xylene                    | EPA 8250        | <25     | ug/L  | MQS  | 6/10/03       |
| Styrene                     | EPA 8250        | <25     | ug/L  | MQS  | 6/10/03       |
| Bromoform                   | EPA 8250        | <50     | ug/L  | MQS  | 6/10/03       |
| Isopropylbenzene            | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| 1,1,2,2-Tetrachloroethane   | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichloropropane      | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| Bromobenzene                | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| N-Propylbenzene             | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| 2-Chlorotoluene             | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| 1,3,5-Trimethylbenzene      | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| 4-Chlorotoluene             | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| tert-Butylbenzene           | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trimethylbenzene      | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| sec-Butylbenzene            | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| p-Isopropyltoluene          | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichlorobenzene         | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| 1,4-Dichlorobenzene         | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| n-Butylbenzene              | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichlorobenzene         | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromo-3-Chloropropane | EPA 8260        | <130    | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trichlorobenzene      | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| Hexachlorobutadiene         | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| Naphthalene                 | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichlorobenzene      | EPA 8260        | <25     | ug/L  | MQS  | 6/10/03       |
| Surrogates:                 | EPA 8260        |         |       |      |               |
| ***1,2-Dichloroethane-D4    | EPA 8260        | 105     | % R   | MQS  | 6/10/03       |
| ***Toluene-D8               | EPA 8260        | 98.6    | % R   | MQS  | 6/10/03       |
| ***4-Bromofluorobenzene     | EPA 8260        | 114     | % R   | MQS  | 6/10/03       |
| Preparation                 |                 | 25      | DF    | MQS  | 6/10/03       |

GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical

Project No.: 01.0015861.26

Work Order No.: 0306-00006

Sample ID: GZ - 16M

Sample No.: 005

Sample Date: 6/02/2003

| Test Performed            | Method   | Results | Units | Tech | Analysis Date |
|---------------------------|----------|---------|-------|------|---------------|
| VOLATILE ORGANICS         | EPA 8260 |         |       | MQS  | 6/10/03       |
| Dichlorodifluoromethane   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Chloromethane             | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Vinyl Chloride            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromomethane              | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Chloroethane              | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Trichlorofluoromethane    | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Diethylether              | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| Acetone                   | EPA 8260 | <25     | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethene        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Dichloromethane           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Methyl-Tert-Butyl-Ether   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| trans-1,2-Dichloroethene  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 2-Butanone                | EPA 8260 | <25     | ug/L  | MQS  | 6/10/03       |
| 2,2-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| cis-1,2-Dichloroethene    | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Chloroform                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromochloromethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Tetrahydrofuran           | EPA 8260 | <10     | ug/L  | MQS  | 6/10/03       |
| 1,1,1-Trichloroethane     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloropropene       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Carbon Tetrachloride      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloroethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Benzene                   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Trichloroethene           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromodichloromethane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,4-Dioxane               | EPA 8260 | <50     | ug/L  | MQS  | 6/10/03       |
| Dibromomethane            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 4-Methyl-2-Pentanone      | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| cis-1,3-Dichloropropene   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Toluene                   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| trans-1,3-Dichloropropene | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,2-Trichloroethane     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 2-Hexanone                | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Tetrachloroethene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Dibromochloromethane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromoethane (EDB)   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |

GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical

Project No.: 01.0015861.26

Work Order No.: 0306-00006

Sample ID: GZ - 16M

Sample Date: 6/02/2003

Sample No.: 005

| Test Performed              | Method   | Results | Units | Tech | Analysis Date |
|-----------------------------|----------|---------|-------|------|---------------|
| Chlorobenzene               | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,1,2-Tetrachloroethane   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Ethylbenzene                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| m&p-Xylene                  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| o-Xylene                    | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Styrene                     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromoform                   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Isopropylbenzene            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,2,2-Tetrachloroethane   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichloropropane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromobenzene                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| N-Propylbenzene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 2-Chlorotoluene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,3,5-Trimethylbenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 4-Chlorotoluene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| tert-Butylbenzene           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trimethylbenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| sec-Butylbenzene            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| p-Isopropyltoluene          | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,4-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| n-Butylbenzene              | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromo-3-Chloropropane | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trichlorobenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Hexachlorobutadiene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Naphthalene                 | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichlorobenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Surrogates:                 | EPA 8260 |         |       |      |               |
| ***1,2-Dichloroethane-D4    | EPA 8260 | 108     | % R   | MQS  | 6/10/03       |
| ***Toluene-D8               | EPA 8260 | 106     | % R   | MQS  | 6/10/03       |
| ***4-Bromofluorobenzene     | EPA 8260 | 102     | % R   | MQS  | 6/10/03       |
| Preparation                 |          | 1.0     | DF    | MQS  | 6/10/03       |



## ANALYTICAL REPORT

Project Name: General Chemical

Project No.: 01.0015861.26

Work Order No.: 0306-00006

Sample ID: USA - 1

Sample Date: 6/02/2003

Sample No.: 006

| Test Performed            | Method   | Results | Units | Tech | Analysis Date |
|---------------------------|----------|---------|-------|------|---------------|
| VOLATILE ORGANICS         | EPA 8260 |         |       | MQS  | 6/10/03       |
| Dichlorodifluoromethane   | EPA 8260 | < 2.0   | ug/L  | MQS  | 6/10/03       |
| Chloromethane             | EPA 8260 | < 2.0   | ug/L  | MQS  | 6/10/03       |
| Vinyl Chloride            | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Bromomethane              | EPA 8260 | < 2.0   | ug/L  | MQS  | 6/10/03       |
| Chloroethane              | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Trichlorofluoromethane    | EPA 8260 | < 2.0   | ug/L  | MQS  | 6/10/03       |
| Diethylether              | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| Acetone                   | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethene        | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Dichloromethane           | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Methyl-Tert-Butyl-Ether   | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| trans-1,2-Dichloroethene  | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethane        | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 2-Butanone                | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| 2,2-Dichloropropane       | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| cis-1,2-Dichloroethene    | EPA 8260 | 6.5     | ug/L  | MQS  | 6/10/03       |
| Chloroform                | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Bromochloromethane        | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Tetrahydrofuran           | EPA 8260 | < 10    | ug/L  | MQS  | 6/10/03       |
| 1,1,1-Trichloroethane     | EPA 8260 | 1.6     | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloropropene       | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Carbon Tetrachloride      | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloroethane        | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Benzene                   | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Trichloroethene           | EPA 8260 | 1.1     | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloropropane       | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Bromodichloromethane      | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,4-Dioxane               | EPA 8260 | < 50    | ug/L  | MQS  | 6/10/03       |
| Dibromomethane            | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 4-Methyl-2-Pentanone      | EPA 8260 | < 2.0   | ug/L  | MQS  | 6/10/03       |
| cis-1,3-Dichloropropene   | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Toluene                   | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| trans-1,3-Dichloropropene | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,1,2-Trichloroethane     | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 2-Hexanone                | EPA 8260 | < 2.0   | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichloropropane       | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Tetrachloroethene         | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Dibromochloromethane      | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromoethane (EDB)   | EPA 8260 | < 2.0   | ug/L  | MQS  | 6/10/03       |

GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical  
 Project No.: 01.0015861.26

Work Order No.: 0306-00006

Sample ID: USA - 1  
 Sample Date: 6/02/2003

Sample No.: 006

| Test Performed              | Method   | Results | Units | Tech | Analysis Date |
|-----------------------------|----------|---------|-------|------|---------------|
| Chlorobenzene               | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,1,1,2-Tetrachloroethane   | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Ethylbenzene                | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| m&p-Xylene                  | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| o-Xylene                    | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Styrene                     | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Bromoform                   | EPA 8260 | < 2.0   | ug/L  | MQS  | 6/10/03       |
| Isopropylbenzene            | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,1,2,2-Tetrachloroethane   | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichloropropane      | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Bromobenzene                | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| N-Propylbenzene             | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 2-Chlorotoluene             | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,3,5-Trimethylbenzene      | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 4-Chlorotoluene             | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| tert-Butylbenzene           | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trimethylbenzene      | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| sec-Butylbenzene            | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| p-Isopropyltoluene          | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichlorobenzene         | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,4-Dichlorobenzene         | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| n-Butylbenzene              | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichlorobenzene         | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromo-3-Chloropropane | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trichlorobenzene      | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Hexachlorobutadiene         | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Naphthalene                 | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichlorobenzene      | EPA 8260 | < 1.0   | ug/L  | MQS  | 6/10/03       |
| Surrogates:                 | EPA 8260 |         |       |      |               |
| ***1,2-Dichloroethane-D4    | EPA 8260 | 106     | % R   | MQS  | 6/10/03       |
| ***Toluene-D8               | EPA 8260 | 105     | % R   | MQS  | 6/10/03       |
| ***4-Bromofluorobenzene     | EPA 8260 | 103     | % R   | MQS  | 6/10/03       |
| Preparation                 |          | 1.0     | DF    | MQS  | 6/10/03       |

GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical

Project No.: 01.0015861.26

Work Order No.: 0306-00006

Sample ID: SW - 10

Sample Date: 6/02/2003

Sample No.: 007

| Test Performed            | Method   | Results | Units | Tech | Analysis Date |
|---------------------------|----------|---------|-------|------|---------------|
| VOLATILE ORGANICS         | EPA 8260 |         |       | MQS  | 6/10/03       |
| Dichlorodifluoromethane   | EPA 8260 | < 10    | ug/L  | MQS  | 6/10/03       |
| Chloromethane             | EPA 8260 | < 10    | ug/L  | MQS  | 6/10/03       |
| Vinyl Chloride            | EPA 8260 | 56      | ug/L  | MQS  | 6/10/03       |
| Bromomethane              | EPA 8260 | < 10    | ug/L  | MQS  | 6/10/03       |
| Chloroethane              | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| Trichlorofluoromethane    | EPA 8260 | < 10    | ug/L  | MQS  | 6/10/03       |
| Diethylether              | EPA 8260 | < 25    | ug/L  | MQS  | 6/10/03       |
| Acetone                   | EPA 8260 | < 130   | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethene        | EPA 8260 | 52      | ug/L  | MQS  | 6/10/03       |
| Dichloromethane           | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| Methyl-Tert-Butyl-Ether   | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| trans-1,2-Dichloroethene  | EPA 8260 | 13      | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethane        | EPA 8260 | 110     | ug/L  | MQS  | 6/10/03       |
| 2-Butanone                | EPA 8260 | < 130   | ug/L  | MQS  | 6/10/03       |
| 2,2-Dichloropropane       | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| cis-1,2-Dichloroethene    | EPA 8260 | 1300    | ug/L  | MQS  | 6/10/03       |
| Chloroform                | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| Bromochloromethane        | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| Tetrahydrofuran           | EPA 8260 | < 50    | ug/L  | MQS  | 6/10/03       |
| 1,1,1-Trichloroethane     | EPA 8260 | 310     | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloropropene       | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| Carbon Tetrachloride      | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloroethane        | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| Benzene                   | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| Trichloroethene           | EPA 8260 | 83      | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloropropane       | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| Bromodichloromethane      | EPA 8260 | < 2.5   | ug/L  | MQS  | 6/10/03       |
| 1,4-Dioxane               | EPA 8260 | < 500   | ug/L  | MQS  | 6/10/03       |
| Dibromomethane            | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| 4-Methyl-2-Pentanone      | EPA 8260 | < 10    | ug/L  | MQS  | 6/10/03       |
| cis-1,3-Dichloropropene   | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| Toluene                   | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| trans-1,3-Dichloropropene | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| 1,1,2-Trichloroethane     | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| 2-Hexanone                | EPA 8260 | < 10    | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichloropropane       | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| Tetrachloroethene         | EPA 8260 | 8.6     | ug/L  | MQS  | 6/10/03       |
| Dibromochloromethane      | EPA 8260 | < 5.0   | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromoethane (EDB)   | EPA 8260 | < 10    | ug/L  | MQS  | 6/10/03       |

GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical  
 Project No.: 01.0015861.26

Work Order No.: 0306-00006

Sample ID: SW - 10  
 Sample Date: 6/02/2003

Sample No.: 007

| Test Performed              | Method   | Results | Units | Tech | Analysis Date |
|-----------------------------|----------|---------|-------|------|---------------|
| Chlorobenzene               | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,1,2-Tetrachloroethane   | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| Ethylbenzene                | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| m&p-Xylene                  | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| o-Xylene                    | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| Styrene                     | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| Bromoform                   | EPA 8260 | <10     | ug/L  | MQS  | 6/10/03       |
| Isopropylbenzene            | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,2,2-Tetrachloroethane   | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichloropropane      | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| Bromobenzene                | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| N-Propylbenzene             | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 2-Chlorotoluene             | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,3,5-Trimethylbenzene      | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 4-Chlorotoluene             | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| tert-Butylbenzene           | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trimethylbenzene      | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| sec-Butylbenzene            | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| p-Isopropyltoluene          | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichlorobenzene         | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,4-Dichlorobenzene         | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| n-Butylbenzene              | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichlorobenzene         | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromo-3-Chloropropane | EPA 8260 | <25     | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trichlorobenzene      | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| Hexachlorobutadiene         | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| Naphthalene                 | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichlorobenzene      | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| Surrogates:                 | EPA 8260 |         |       |      |               |
| ***1,2-Dichloroethane-D4    | EPA 8260 | 108     | % R   | MQS  | 6/10/03       |
| ***Toluene-D8               | EPA 8260 | 105     | % R   | MQS  | 6/10/03       |
| ***4-Bromofluorobenzene     | EPA 8260 | 99.7    | % R   | MQS  | 6/10/03       |
| Preparation                 |          | 5.0     | DF    | MQS  | 6/10/03       |



GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical  
 Project No.: 01.0015861.26

Work Order No.: 0306-00006

Sample ID: Tripblank  
 Sample Date: 6/02/2003

Sample No.: 008

| Test Performed            | Method   | Results | Units | Tech | Analysis Date |
|---------------------------|----------|---------|-------|------|---------------|
| VOLATILE ORGANICS         | EPA 8260 |         |       | MQS  | 6/10/03       |
| Dichlorodifluoromethane   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Chloromethane             | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Vinyl Chloride            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromomethane              | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Chloroethane              | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Trichlorofluoromethane    | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Diethylether              | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| Acetone                   | EPA 8260 | <25     | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethene        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Dichloromethane           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Methyl-Tert-Butyl-Ether   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| trans-1,2-Dichloroethene  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloroethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 2-Butanone                | EPA 8260 | <25     | ug/L  | MQS  | 6/10/03       |
| 2,2-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| cis-1,2-Dichloroethene    | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Chloroform                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromochloromethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Tetrahydrofuran           | EPA 8260 | <10     | ug/L  | MQS  | 6/10/03       |
| 1,1,1-Trichloroethane     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1-Dichloropropene       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Carbon Tetrachloride      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloroethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Benzene                   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Trichloroethene           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromodichloromethane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,4-Dioxane               | EPA 8260 | <50     | ug/L  | MQS  | 6/10/03       |
| Dibromomethane            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 4-Methyl-2-Pentanone      | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| cis-1,3-Dichloropropene   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Toluene                   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| trans-1,3-Dichloropropene | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,2-Trichloroethane     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 2-Hexanone                | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Tetrachloroethene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Dibromochloromethane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromoethane (EDB)   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |

GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical  
 Project No.: 01.0015861.26

Work Order No.: 0306-00006

Sample ID: Tripblank  
 Sample Date: 6/02/2003

Sample No.: 008

| Test Performed              | Method   | Results | Units | Tech | Analysis Date |
|-----------------------------|----------|---------|-------|------|---------------|
| Chlorobenzene               | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,1,2-Tetrachloroethane   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Ethylbenzene                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| m&p-Xylene                  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| o-Xylene                    | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Styrene                     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromoform                   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/10/03       |
| Isopropylbenzene            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,1,2,2-Tetrachloroethane   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichloropropane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Bromobenzene                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| N-Propylbenzene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 2-Chlorotoluene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,3,5-Trimethylbenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 4-Chlorotoluene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| tert-Butylbenzene           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trimethylbenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| sec-Butylbenzene            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| p-Isopropyltoluene          | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,3-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,4-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| n-Butylbenzene              | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2-Dibromo-3-Chloropropane | EPA 8260 | <5.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,4-Trichlorobenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Hexachlorobutadiene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Naphthalene                 | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| 1,2,3-Trichlorobenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/10/03       |
| Surrogates:                 | EPA 8260 |         |       |      |               |
| ***1,2-Dichloroethane-D4    | EPA 8260 | 105     | % R   | MQS  | 6/10/03       |
| ***Toluene-D8               | EPA 8260 | 113     | % R   | MQS  | 6/10/03       |
| ***4-Bromofluorobenzene     | EPA 8260 | 99.2    | % R   | MQS  | 6/10/03       |
| Preparation                 |          | 1.0     | DF    | MQS  | 6/10/03       |

EPA Method 8260 / 524.2 Aqueous Method Blank (MB) and Laboratory Control Sample (LCS) Data

Method Blank

| Date Analyzed:                | 6/10/2003        |       |
|-------------------------------|------------------|-------|
| Conc. ug/L                    | Acceptance Limit |       |
| Volatile Organics             | < 1.0            | < 1.0 |
| dichlorodifluoromethane       | < 2.0            | < 2.0 |
| chloromethane                 | < 1.0            | < 1.0 |
| vinyl chloride                | < 1.0            | < 1.0 |
| bromomethane                  | < 1.0            | < 1.0 |
| chloroethane                  | < 1.0            | < 1.0 |
| trichlorofluoromethane        | < 2.0            | < 2.0 |
| diethyl ether                 | < 2.5            | < 2.5 |
| acetone                       | < 13             | < 13  |
| 1,1-dichloroethene            | < 0.5            | < 0.5 |
| FREON-113                     | < 1.0            | < 1.0 |
| carbon disulfide              | < 0.5            | < 0.5 |
| dichloromethane               | < 1.0            | < 1.0 |
| tert-butyl alcohol (TBA)      | < 0.5            | < 0.5 |
| methyl-tert-butyl-ether       | < 0.5            | < 0.5 |
| trans-1,2-dichloroethane      | < 13             | < 13  |
| 1,1-dichloroethane            | < 0.5            | < 0.5 |
| di-isopropyl ether (DIPE)     | < 0.5            | < 0.5 |
| ethyl tert-butyl ether (ETBE) | < 0.5            | < 0.5 |
| 2-butanone                    | < 0.5            | < 0.5 |
| 2,2-dichloropropane           | < 5.0            | < 5.0 |
| cis-1,2-dichloroethane        | < 0.5            | < 0.5 |
| chloroform                    | < 0.5            | < 0.5 |
| bromochloromethane            | < 0.5            | < 0.5 |
| tetrahydrofuran               | < 0.5            | < 0.5 |
| 1,1,1-trichloroethane         | < 0.5            | < 0.5 |
| 1,1-dichloropropene           | < 0.5            | < 0.5 |
| carbon tetrachloride          | < 0.5            | < 0.5 |
| 1,2-dichloroethane            | < 0.5            | < 0.5 |
| tert-amyl methyl ether (TAME) | < 0.5            | < 0.5 |
| trichloroethene               | < 1.0            | < 1.0 |
| 1,2-dichloropropane           | < 0.5            | < 0.5 |
| bromodichloromethane          | < 0.5            | < 0.5 |
| 1,4-Dioxane                   | < 25             | < 25  |
| 1,2,3-trichloropropane        | < 0.5            | < 0.5 |
| 4-methyl-2-pentanone          | < 1.0            | < 1.0 |
| cis-1,3-dichloropropene       | < 0.5            | < 0.5 |
| toluene                       | < 0.5            | < 0.5 |
| trans-1,3-dichloropropene     | < 0.5            | < 0.5 |
| 1,1,2-trichloroethane         | < 1.0            | < 1.0 |
| 2-hexanone                    | < 0.5            | < 0.5 |
| 1,3-dichloropropane           | < 0.5            | < 0.5 |
| tetrachloroethene             | < 0.5            | < 0.5 |
| 1,2-dibromochloromethane      | < 0.5            | < 0.5 |
| 1,2-dibromomethane (EDB)      | < 0.5            | < 0.5 |
| chlorobenzene                 | < 0.5            | < 0.5 |
| 1,1,1,2-tetrachloroethane     | < 0.5            | < 0.5 |
| ethylbenzene                  | < 1.0            | < 1.0 |
| 1,1,2,2-tetrachloroethane     | < 0.5            | < 0.5 |
| m&p-xylene                    | < 0.5            | < 0.5 |
| o-xylene                      | < 0.5            | < 0.5 |
| styrene                       | < 0.5            | < 0.5 |
| bromoforn                     | < 0.5            | < 0.5 |
| isopropylbenzene              | < 0.5            | < 0.5 |
| 1,2,3-trichloropropane        | < 0.5            | < 0.5 |
| bromobenzene                  | < 0.5            | < 0.5 |
| n-propylbenzene               | < 0.5            | < 0.5 |
| 2-chlorotoluene               | < 0.5            | < 0.5 |
| 1,3,5-trimethylbenzene        | < 0.5            | < 0.5 |
| 4-chlorotoluene               | < 0.5            | < 0.5 |
| tert-butyl-benzene            | < 0.5            | < 0.5 |
| 1,2,4-trimethylbenzene        | < 0.5            | < 0.5 |
| sec-butyl-benzene             | < 0.5            | < 0.5 |
| p-isopropyltoluene            | < 2.5            | < 2.5 |
| 1,3-dichlorobenzene           | < 0.5            | < 0.5 |
| 1,4-dichlorobenzene           | < 0.5            | < 0.5 |
| n-butylbenzene                | < 0.5            | < 0.5 |
| 1,2-dichlorobenzene           | < 0.5            | < 0.5 |
| 1,2-dibromo-3-chloropropane   | < 0.5            | < 0.5 |
| 1,2,4-trichlorobenzene        | < 0.5            | < 0.5 |
| hexachlorobutadiene           | < 0.5            | < 0.5 |
| naphthalene                   | < 0.5            | < 0.5 |
| 1,2,3-trichlorobenzene        | < 0.5            | < 0.5 |

Laboratory Control Sample

| Date Analyzed:                | 6/10/2003  |                   |         |
|-------------------------------|------------|-------------------|---------|
| Spike Concentration = 20ug/L  | % Recovery | Acceptance Limits | Verdict |
| dichlorodifluoromethane       | 87.2       | 70-130            | ok      |
| chloromethane                 | 93.4       | 70-130            | ok      |
| vinyl chloride                | 101        | 80-120            | ok      |
| bromomethane                  | 89.5       | 70-130            | ok      |
| chloroethane                  | 96.5       | 70-130            | ok      |
| trichlorofluoromethane        | 83.2       | 70-130            | ok      |
| diethyl ether                 | 118        | 70-130            | ok      |
| acetone                       | 114        | 70-130            | ok      |
| 1,1-dichloroethane            | 99.2       | 80-120            | ok      |
| FREON-113                     | 108        | 70-130            | ok      |
| carbon disulfide              | 57.5       | 70-130            | out     |
| dichloromethane               | 101        | 70-130            | ok      |
| tert-butyl alcohol (TBA)      | 123        | 70-130            | ok      |
| methyl-tert-butyl-ether       | 123        | 70-130            | ok      |
| trans-1,2-dichloroethane      | 95.5       | 70-130            | ok      |
| 1,1-dichloroethane            | 94.2       | 70-130            | ok      |
| di-isopropyl ether (DIPE)     | 101        | 70-130            | ok      |
| ethyl tert-butyl ether (ETBE) | 104        | 80-120            | ok      |
| 2-butanone                    | 100        | 70-130            | ok      |
| 2,2-dichloropropane           | 81.1       | 70-130            | ok      |
| cis-1,2-dichloroethane        | 80.2       | 70-130            | ok      |
| chloroform                    | 86.7       | 70-130            | ok      |
| bromochloromethane            | 108        | 70-130            | ok      |
| tetrahydrofuran               | 95.1       | 70-130            | ok      |
| 1,1,1-trichloroethane         | 88.3       | 70-130            | ok      |
| 1,1-dichloropropene           | 94.4       | 70-130            | ok      |
| carbon tetrachloride          | 97.6       | 80-120            | ok      |
| 1,2-dichloroethane            | 111        | 70-130            | ok      |
| tert-amyl methyl ether (TAME) | 133        | 70-130            | out     |
| trichloroethene               | 113        | 70-130            | ok      |
| 1,2-dichloropropane           | 103        | 70-130            | ok      |
| bromodichloromethane          | 110        | 80-120            | ok      |
| 1,4-Dioxane                   | 113        | 70-130            | ok      |
| dibromomethane                | 125        | 70-130            | ok      |
| 4-methyl-2-pentanone          | 121        | 70-130            | ok      |
| cis-1,3-dichloropropene       | 113        | 70-130            | ok      |
| toluene                       | 101        | 70-130            | ok      |
| trans-1,3-dichloropropene     | 112        | 70-130            | ok      |
| 1,1,2-trichloroethane         | 113        | 70-130            | ok      |
| 2-hexanone                    | 119        | 70-130            | ok      |
| 1,3-dichloropropane           | 110        | 70-130            | ok      |
| tetrachloroethene             | 105        | 80-120            | ok      |
| 1,2-dibromochloromethane      | 123        | 70-130            | ok      |
| 1,2-dibromomethane (EDB)      | 120        | 70-130            | ok      |
| chlorobenzene                 | 105        | 70-130            | ok      |
| 1,1,1,2-tetrachloroethane     | 115        | 70-130            | ok      |
| ethylbenzene                  | 100        | 70-130            | ok      |
| 1,1,2,2-tetrachloroethane     | 123        | 70-130            | ok      |
| m&p-xylene                    | 93.3       | 70-130            | ok      |
| o-xylene                      | 92.4       | 70-130            | ok      |
| styrene                       | 89.0       | 70-130            | ok      |
| bromoforn                     | 116        | 70-130            | ok      |
| isopropylbenzene              | 89.9       | 70-130            | ok      |
| 1,2,3-trichloropropane        | 108        | 70-130            | ok      |
| bromobenzene                  | 108        | 70-130            | ok      |
| n-propylbenzene               | 96.4       | 70-130            | ok      |
| 2-chlorotoluene               | 91.3       | 70-130            | ok      |
| 1,3,5-trimethylbenzene        | 90.7       | 70-130            | ok      |
| 4-chlorotoluene               | 92.2       | 70-130            | ok      |
| tert-butyl-benzene            | 95.1       | 70-130            | ok      |
| 1,2,4-trimethylbenzene        | 93.8       | 70-130            | ok      |
| sec-butyl-benzene             | 91.4       | 70-130            | ok      |
| p-isopropyltoluene            | 96.1       | 70-130            | ok      |
| 1,3-dichlorobenzene           | 107        | 70-130            | ok      |
| 1,4-dichlorobenzene           | 110        | 70-130            | ok      |
| n-butylbenzene                | 82.0       | 70-130            | ok      |
| 1,2-dichlorobenzene           | 118        | 70-130            | ok      |
| 1,2-dibromo-3-chloropropane   | 113        | 70-130            | ok      |
| 1,2,4-trichlorobenzene        | 115        | 70-130            | ok      |
| hexachlorobutadiene           | 106        | 70-130            | ok      |
| naphthalene                   | 115        | 70-130            | ok      |
| 1,2,3-trichlorobenzene        | 115        | 70-130            | ok      |

SMF criteria allows 5 compounds to be outside acceptance limits

| Surrogates:           | Recovery (%) | Acceptance Limits | Surrogates:           | Recovery (%) | Acceptance Limits | Verdict |
|-----------------------|--------------|-------------------|-----------------------|--------------|-------------------|---------|
| DIBROMOFLUOROMETHANE  | 123          | 70-130            | DIBROMOFLUOROMETHANE  | 108          | 70-130            | ok      |
| 1,2-DICHLOROETHANE-D4 | 118          | 70-130            | 1,2-DICHLOROETHANE-D4 | 114          | 70-130            | ok      |
| TOLUENE-D8            | 113          | 70-130            | TOLUENE-D8            | 97.8         | 70-130            | ok      |
| 4-BROMOFLUOROBENZENE  | 101          | 70-130            | 4-BROMOFLUOROBENZENE  | 104          | 70-130            | ok      |
| 1,2-DICHLOROETHANE-D4 | 105          | 70-130            | 1,2-DICHLOROETHANE-D4 | 109          | 70-130            | ok      |

(for job use only)

| Sample<br>I.D.                                                                     | Date/Time<br>Sampled<br>(Very Important) | Matrix       | ANALYSIS REQUIRED                                                                        |            |                 |               |     |           |     |              |      |      |                    |                  |                     | Total #<br>of Cont. | Note # |                |                  |                    |              |              |              |                    |                             |                       |                      |  |   |     |   |
|------------------------------------------------------------------------------------|------------------------------------------|--------------|------------------------------------------------------------------------------------------|------------|-----------------|---------------|-----|-----------|-----|--------------|------|------|--------------------|------------------|---------------------|---------------------|--------|----------------|------------------|--------------------|--------------|--------------|--------------|--------------------|-----------------------------|-----------------------|----------------------|--|---|-----|---|
|                                                                                    |                                          |              | Air-Soil<br>S-Soil<br>SW-Water W.<br>MW-Metallic W.<br>DW-Dredging M.<br>Other (specify) | DPH DCont. | GC Screen (VQA) | C524.2 C502.2 | B24 | C601 C602 | B25 | Formaldehyde | B260 | B021 | B021 - "B010" List | B021 "B020" List | B270 CPUL CPAH CBEN |                     |        | S062-PCBs Only | S051 - Pest Only | TPH-GC (Mod. 3100) | TPH-GC w/RNG | EPA (MA DEP) | VPI (MA DEP) | TCLP (Spec. Below) | Filtration (✓ if requested) | Methals DPPM-13 C R-8 | Methals (List Below) |  |   |     |   |
| SW-3                                                                               | 6/2/03 8:00                              |              | X                                                                                        |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  | 3 | 1,2 |   |
| DSC-1                                                                              | 6/2/03 8:10                              |              | X                                                                                        |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  | 3 | 1,2 |   |
| PZ-15                                                                              | 6/2/03 9:38                              |              | X                                                                                        |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  | 3 | 1   |   |
| PZ-25                                                                              | 6/2/03 10:13                             |              | X                                                                                        |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  | 3 | 1   |   |
| GZ-16m                                                                             | 6/2/03 11:02                             |              | X                                                                                        |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  | 3 | 1   |   |
| USA-1                                                                              | 6/2/03 11:25                             |              | X                                                                                        |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  | 3 | 1,2 |   |
| SW-10                                                                              | 6/2/03 12:30                             |              | X                                                                                        |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  | 3 | 1,2 |   |
| Trip blank                                                                         | 6/2/03                                   |              |                                                                                          |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  |   | 3   | 1 |
|                                                                                    |                                          |              |                                                                                          |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  |   |     |   |
| <b>PRESERVATIVE (CI - HCl; M=MeOH; N = HNOS; S = H2SO4; Na = NaOH; O = Other)*</b> |                                          |              |                                                                                          |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  |   |     |   |
| <b>CONTAINER TYPE (R Plastic, G Glass, V-Vial, Q-Other)*</b>                       |                                          |              |                                                                                          |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  |   |     |   |
| RELINQUISHED BY:                                                                   | DATE/TIME                                | RECEIVED BY: |                                                                                          |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  |   |     |   |
| RELINQUISHED BY:                                                                   | DATE/TIME                                | RECEIVED BY: |                                                                                          |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  |   |     |   |
| RELINQUISHED BY:                                                                   | DATE/TIME                                | RECEIVED BY: |                                                                                          |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  |   |     |   |
| <b>PROJECT MANAGER: Margaret Saparito EXT. 5834</b>                                |                                          |              |                                                                                          |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  |   |     |   |
| <b>DATA REPORT PDF (Adobe) ASCII EXCEL Specify State _____</b>                     |                                          |              |                                                                                          |            |                 |               |     |           |     |              |      |      |                    |                  |                     |                     |        |                |                  |                    |              |              |              |                    |                             |                       |                      |  |   |     |   |

NOTES: Preservatives, special reporting limits, known contamination, additional testing parameters, etc.:  
 1. Analyze 8260 + 1,4-dioxane  
 2. Non-elevated MDL for 1,4-dioxane (ie, 100ppb)  
 TO WATER IN SYSTEM  
 De Ion System

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TURNAROUND TIME: Standard Rush Days, Approved by: LAB USE:  
 TEMP OF COOLER 72 °C

GZA FILE NO: 15861.26 P.O. NO. \_\_\_\_\_

PROJECT General Chemical Corporation

LOCATION Framingham, MA

COLLECTOR(S) W. Delaney, M. Saparito SHEET 1 OF 1



**GZA GeoEnvironmental, Inc.**  
**106 South Street**  
**Hopkinton, MA 01748**  
**(781) 278-4700**

Laboratory Identification Numbers:  
MA: MA092 NH: 2028 RI: 236  
CT: PH0579 OK: 9928 NC: 615  
NY (NELAC): 11063

**ANALYTICAL DATA REPORT**

GZA GeoEnvironmental, Inc.  
One Edgewater Drive  
Norwood, MA 02062  
781-278-3700  
M. Sapanara

Project No.: 01.0015861.26  
Work Order No.: 0306-00016  
Date Received: 6/04/03  
Date Reported: 6/12/03

**SAMPLE INFORMATION**

| Date Sampled | Matrix  | Laboratory ID  | Sample ID  |
|--------------|---------|----------------|------------|
| 6/03/2003    | Aqueous | 0306-00016 001 | GZ - 5S    |
| 6/03/2003    | Aqueous | 0306-00016 002 | GZ - 15R   |
| 6/03/2003    | Aqueous | 0306-00016 003 | GZ - 15D   |
| 6/03/2003    | Aqueous | 0306-00016 004 | GZ - 15S   |
| 6/03/2003    | Aqueous | 0306-00016 006 | GZ - 14M   |
| 6/03/2003    | Aqueous | 0306-00016 007 | GZ - 7     |
| 6/03/2003    | Aqueous | 0306-00016 008 | Trip Blank |
| 6/03/2003    | Aqueous | 0306-00016 009 | GZ - 14S   |

GZA GeoEnvironmental, Inc.  
106 South Street  
Hopkinton, MA 01748

## ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.  
One Edgewater Drive  
Norwood, MA 02062

M. Sapanara

Project Name: General Chemical  
Project No.: 01.0015861.26

Date Received: 6/04/03  
Date Reported: 6/12/03  
Work Order No.: 0306-00016

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### PROJECT NARRATIVE:

#### 1. Sample Receipt

The samples were received on 06/04/03 via x GZA courier,   EC,   FEDEX, or   hand delivered.  
The temperature of the   temperature blank/ X cooler air, was 2.2 degrees C. The samples were received intact for all requested analyses.

The samples were appropriately preserved in accordance with the method they reference.

The chain of custody has been modified to reflect the new project numbers.

#### 2. EPA Method 8260

Attach QC 8260 06/11/03 - Aqueous

GZA GeoEnvironmental, Inc.  
106 South Street  
Hopkinton, MA 01748

## ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.  
One Edgewater Drive  
Norwood, MA 02062

M. Sapanara

Project Name: General Chemical  
Project No.: 01.0015861.26

Date Received: 6/04/03  
Date Reported: 6/12/03  
Work Order No.: 0306-00016

### ANALYTICAL REPORT CERTIFICATION:

Were all QA/QC procedures required for the specified analytical method(s) included in this report followed?

Yes [ ☒ ] No [ ☐ ]  
(if "No" must address in narrative.  
Attach additional information if required.)

Were all QA/QC performance standards for specified analytical methods(s) included in this report met (including those not required to be reported)?

Yes [ ☒ ] No [ ☐ ]  
(if "No" must address in narrative.  
Attach additional information if required.)

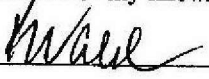
Were all contaminants identified and quantified by the laboratory in the course of this analysis of field samples by comparison to a calibration standard, even if not a requested analyte, reported by the laboratory to the person that requested the analysis?

Yes [ ☒ ] No [ ☐ ]  
(if "No" must address in narrative.  
Attach additional information if required.)

Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation?

Yes [ ☒ ] No [ ☐ ]  
(if "No" must address in narrative.  
Attach additional information if required.)

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: 

Date: 6/12/03

Printed Name: Kathryn Walsh

Position: Laboratory Supervisor

GZA GeoEnvironmental, Inc.  
106 South Street  
Hopkinton, MA 01748

## ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.  
One Edgewater Drive  
Norwood, MA 02062

M. Sapanara

Project Name: General Chemical  
Project No.: 01.0015861.26

Date Received: 6/04/03  
Date Reported: 6/12/03  
Work Order No.: 0306-00016

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### LABORATORY STATEMENTS:

#### Abbreviations:

% R = % Recovery  
DF = Dilution Factor  
DO = Diluted Out

#### Method Key:

Method 8260: The current version of the method is 8260B.  
Method 8021: The current version of the method is 8021B.  
Method 8270: The current version of the method is 8270C.  
Method 6010: The current version of the method is 6010B.

Soil data is reported on a dry weight basis unless otherwise specified.

Matrix Spike / Matrix Spike Duplicate sets are performed as per method and are reported at the end of the analytical report if assigned on the Chain of Custody.



GZA GeoEnvironmental, Inc.  
106 South Street  
Hopkinton, MA 01748

## ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.  
One Edgewater Drive  
Norwood, MA 02062

M. Sapanara

Project Name: General Chemical  
Project No.: 01.0015861.26

Date Received: 6/04/03  
Date Reported: 6/12/03  
Work Order No.: 0306-00016

Sample ID: GZ - 5S  
Sample Date: 6/03/2003

Sample No.: 001

| Test Performed           | Method   | Results | Units | Tech | Analysis Date |
|--------------------------|----------|---------|-------|------|---------------|
| VOLATILE ORGANICS        | EPA 8260 |         |       | MQS  | 6/11/03       |
| Dichlorodifluoromethane  | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| Chloromethane            | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| Vinyl Chloride           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Bromomethane             | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| Chloroethane             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Trichlorofluoromethane   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| Diethylether             | EPA 8260 | <5.0    | ug/L  | MQS  | 6/11/03       |
| Acetone                  | EPA 8260 | <25     | ug/L  | MQS  | 6/11/03       |
| 1,1-Dichloroethene       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Dichloromethane          | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Methyl-Tert-Butyl-Ether  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| trans-1,2-Dichloroethene | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,1-Dichloroethane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 2-Butanone               | EPA 8260 | <25     | ug/L  | MQS  | 6/11/03       |
| 2,2-Dichloropropane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| cis-1,2-Dichloroethene   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Chloroform               | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Bromochloromethane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Tetrahydrofuran          | EPA 8260 | <10     | ug/L  | MQS  | 6/11/03       |
| 1,1,1-Trichloroethane    | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,1-Dichloropropene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Carbon Tetrachloride     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2-Dichloroethane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Benzene                  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Trichloroethene          | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2-Dichloropropane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Bromodichloromethane     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,4-Dioxane              | EPA 8260 | <50     | ug/L  | MQS  | 6/11/03       |
| Dibromomethane           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 4-Methyl-2-Pentanone     | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| cis-1,3-Dichloropropene  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |

GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical  
 Project No.: 01.0015861.26

Work Order No.: 0306-00016

Sample ID: GZ - 5S  
 Sample Date: 6/03/2003

Sample No.: 001

| Test Performed              | Method   | Results | Units | Tech | Analysis Date |
|-----------------------------|----------|---------|-------|------|---------------|
| Toluene                     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| trans-1,3-Dichloropropene   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,1,2-Trichloroethane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 2-Hexanone                  | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| 1,3-Dichloropropane         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Tetrachloroethene           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Dibromochloromethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2-Dibromoethane (EDB)     | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| Chlorobenzene               | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,1,1,2-Tetrachloroethane   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Ethylbenzene                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| m&p-Xylene                  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| o-Xylene                    | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Styrene                     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Bromoform                   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| Isopropylbenzene            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,1,2,2-Tetrachloroethane   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2,3-Trichloropropane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Bromobenzene                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| N-Propylbenzene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 2-Chlorotoluene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,3,5-Trimethylbenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 4-Chlorotoluene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| tert-Butylbenzene           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2,4-Trimethylbenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| sec-Butylbenzene            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| p-Isopropyltoluene          | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,3-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,4-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| n-Butylbenzene              | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2-Dibromo-3-Chloropropane | EPA 8260 | <5.0    | ug/L  | MQS  | 6/11/03       |
| 1,2,4-Trichlorobenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Hexachlorobutadiene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Naphthalene                 | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2,3-Trichlorobenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Surrogates:                 | EPA 8260 |         |       |      |               |
| ***1,2-Dichloroethane-D4    | EPA 8260 | 102     | % R   | MQS  | 6/11/03       |
| ***Toluene-D8               | EPA 8260 | 109     | % R   | MQS  | 6/11/03       |
| ***4-Bromofluorobenzene     | EPA 8260 | 95.1    | % R   | MQS  | 6/11/03       |
| Preparation                 |          | 1.0     | DF    | MQS  | 6/11/03       |

GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical  
 Project No.: 01.0015861.26

Work Order No.: 0306-00016

Sample ID: GZ - 15R  
 Sample Date: 6/03/2003

Sample No.: 002

| Test Performed            | Method   | Results | Units | Tech | Analysis Date |
|---------------------------|----------|---------|-------|------|---------------|
| VOLATILE ORGANICS         | EPA 8260 |         |       | MQS  | 6/11/03       |
| Dichlorodifluoromethane   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| Chloromethane             | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| Vinyl Chloride            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Bromomethane              | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| Chloroethane              | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Trichlorofluoromethane    | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| Diethylether              | EPA 8260 | <5.0    | ug/L  | MQS  | 6/11/03       |
| Acetone                   | EPA 8260 | <25     | ug/L  | MQS  | 6/11/03       |
| 1,1-Dichloroethene        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Dichloromethane           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Methyl-Tert-Butyl-Ether   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| trans-1,2-Dichloroethene  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,1-Dichloroethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 2-Butanone                | EPA 8260 | <25     | ug/L  | MQS  | 6/11/03       |
| 2,2-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| cis-1,2-Dichloroethene    | EPA 8260 | 1.2     | ug/L  | MQS  | 6/11/03       |
| Chloroform                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Bromochloromethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Tetrahydrofuran           | EPA 8260 | <10     | ug/L  | MQS  | 6/11/03       |
| 1,1,1-Trichloroethane     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,1-Dichloropropene       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Carbon Tetrachloride      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2-Dichloroethane        | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Benzene                   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Trichloroethene           | EPA 8260 | 2.0     | ug/L  | MQS  | 6/11/03       |
| 1,2-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Bromodichloromethane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,4-Dioxane               | EPA 8260 | <50     | ug/L  | MQS  | 6/11/03       |
| Dibromomethane            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 4-Methyl-2-Pentanone      | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| cis-1,3-Dichloropropene   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Toluene                   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| trans-1,3-Dichloropropene | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,1,2-Trichloroethane     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 2-Hexanone                | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| 1,3-Dichloropropane       | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Tetrachloroethene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Dibromochloromethane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2-Dibromoethane (EDB)   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |

GZA GeoEnvironmental, Inc.

## ANALYTICAL REPORT

Project Name: General Chemical

Project No.: 01.0015861.26

Work Order No.: 0306-00016

Sample ID: GZ - 15R

Sample Date: 6/03/2003

Sample No.: 002

| Test Performed              | Method   | Results | Units | Tech | Analysis Date |
|-----------------------------|----------|---------|-------|------|---------------|
| Chlorobenzene               | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,1,1,2-Tetrachloroethane   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Ethylbenzene                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| m&p-Xylene                  | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| o-Xylene                    | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Styrene                     | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Bromoform                   | EPA 8260 | <2.0    | ug/L  | MQS  | 6/11/03       |
| Isopropylbenzene            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,1,2,2-Tetrachloroethane   | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2,3-Trichloropropane      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Bromobenzene                | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| N-Propylbenzene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 2-Chlorotoluene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,3,5-Trimethylbenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 4-Chlorotoluene             | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| tert-Butylbenzene           | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2,4-Trimethylbenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| sec-Butylbenzene            | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| p-Isopropyltoluene          | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,3-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,4-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| n-Butylbenzene              | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2-Dichlorobenzene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2-Dibromo-3-Chloropropane | EPA 8260 | <5.0    | ug/L  | MQS  | 6/11/03       |
| 1,2,4-Trichlorobenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Hexachlorobutadiene         | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Naphthalene                 | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| 1,2,3-Trichlorobenzene      | EPA 8260 | <1.0    | ug/L  | MQS  | 6/11/03       |
| Surrogates:                 | EPA 8260 |         |       |      |               |
| ***1,2-Dichloroethane-D4    | EPA 8260 | 112     | % R   | MQS  | 6/11/03       |
| ***Toluene-D8               | EPA 8260 | 111     | % R   | MQS  | 6/11/03       |
| ***4-Bromofluorobenzene     | EPA 8260 | 99.6    | % R   | MQS  | 6/11/03       |
| Preparation                 |          | 1.0     | DF    | MQS  | 6/11/03       |