SUPPLEMENTAL SITE INVESTIGATION REPORT

FILE COPY

PREPARED FOR:

HERCULES, INC.

CHEMICAL SPECIALTIES

HATTIESBURG, MISSISSIPPI

NOVEMBER, 2003

PREPARED BY:

Eco·Systems, Inc.

Consultants, Engineers and Scientists

439 KATHERINE DRIVE, SUITE 2A
JACKSON, MISSISSIPPI 39232
(601) 936-4440

JACKSON, MS • MERIDIAN, MS • MOBILE, AL • HOUSTON, TX

Eco•Systems, Inc.
Consultants, Engineers, and Scientists
Our 10th Year

November 7, 2003

Mr. William McKercher
Environmental Engineer
Office of Pollution Control
Mississippi Department of Environmental Quality (MDEQ)
Jackson, Mississippi 39289-0385

DEPT OF ENVIRONMENTAL QUALITY
REC'D
NOV 10 2003

Re: ***Supplemental Site Investigation Report***
Hercules Incorporated
Hattiesburg, Mississippi
ESI Project No. HER22173

Dear Mr. Mckercher:

Eco-Systems, Inc. (Eco-Systems) is pleased to submit the enclosed *Supplemental Site Investigation Report* prepared on behalf of Hercules, Incorporated (Hercules). The investigation was conducted in accordance with the *Work Plan Supplemental Site Investigation* (Eco-Systems, June 2003). The report includes discussion of the following tasks:

- Groundwater investigation,
- Surface water and stream sediment investigation,
- Geophysical survey of the former landfill area, and
- Geophysical survey of an area in the western portion of the site.

Following your review of the enclosed report, Hercules would like to arrange a meeting with the Mississippi Department of Environmental Control. Please contact Mr. Timothy Hassett of Hercules to schedule the meeting.

If you have any questions or require additional information, please do not hesitate to call Mr. Timothy Hassett at (302) 995-3456 or Caleb Dana (Eco-Systems) at (601) 936-4440.

Sincerely,

Charles V. Coney, P.G.
Senior Scientist

Caleb H. Dana, Jr., P.E., CHMM
Senior Principal Engineer

cc: Timothy Hassett – Hercules Inc. w/ enclosure
C. S. Jordan – Hercules, Hattiesburg w/ enclosure

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1.0 INTRODUCTION

Eco-Systems, Inc. (Eco-Systems) has been retained by Hercules Incorporated (Hercules) to conduct supplemental site investigation at the Hercules facility in Hattiesburg, Mississippi. The site location is shown on **Figure 1**. The supplemental site investigation was conducted in accordance with the *Work Plan for Supplemental Site Investigation* (Eco-Systems, June 2003) as approved by the Mississippi Department of Environmental Quality (MDEQ) in a letter dated July 11, 2003. The *Work Plan Supplemental Site Investigation* was prepared and implemented in response to a letter from the MDEQ dated February 3, 2003. The February 3, 2003, letter from MDEQ was sent after review by the MDEQ of the *Interim Groundwater Monitoring Report* (Eco-Systems, January 2003). *The Interim Groundwater Monitoring Report* was submitted voluntarily by Hercules after receipt of groundwater analytical results for groundwater monitoring conducted in accordance with the *Hercules' Site Investigation Work Plan* (Eco-Systems, February 1999) and additional comments of the MDEQ approval letter dated April 5, 1999.

1.1 BACKGROUND

Previous site investigations, which were conducted between April 1999 and March 2003, are discussed in the *Interim Groundwater Monitoring Report* (Eco-Systems, January 2003) and the *Hercules Site Investigation Report* (Eco-Systems, April 2003). The findings of the site investigations that are discussed in the *Interim Groundwater Monitoring Report* and the *Hercules Site Investigation Report* include the detection of volatile organic compounds (VOCs) in groundwater at concentrations above Target Remediation Goals (TRGs) identified in the MDEQ Brownfields program. The highest concentrations of VOCs were detected in the groundwater sample collected from monitoring well MW-8. Monitoring well MW-8 is located near the former dioxathion production area.

The February 3, 2003, letter from MDEQ requested that Hercules submit a work plan for supplemental site assessment to delineate the vertical and horizontal extent of VOCs detected in shallow groundwater at the facility. That work plan was submitted to the MDEQ on April 4, 2003. The letter from MDEQ also requested that Hercules conduct a geophysical investigation to delineate the lateral limits of the closed landfill on the site and to locate accumulations of buried metal within the landfill. The MDEQ letter requested the location of buried drums. It should be noted that geophysical methods will only allow for the identification of magnetic anomalies in subsurface soils that may be interpreted as accumulations of buried metallic objects.

After review of the *Work Plan for Supplemental Site Assessment* (Eco-Systems, April 2003), the MDEQ sent a letter to Hercules dated April 24, 2003, which addressed 12 issues in the work plan and requested a revised work plan. Those issues were further discussed in a meeting between Hercules and the MDEQ on June 6, 2003, and in a letter from the MDEQ to Hercules dated June

11, 2003. This revised *Work Plan for Supplemental Site Assessment* (Eco-Systems, June 2003) encompasses the revisions agreed upon between Hercules and the MDEQ.

1.2 Purpose and Scope

The original purpose of the supplemental site investigation was to investigate the lateral and vertical extent of the VOCs that were detected in the groundwater samples collected from monitoring wells MW-4, MW-8, MW-9, and MW-11. The original supplemental site investigation also included a geophysical investigation to delineate the lateral limits of the landfill and, if possible, locate accumulations of buried metal. In response to comments from the MDEQ, the supplemental site investigation has been revised to include additional analytical parameters, investigation of the surface water and stream sediments upstream from previously sampled locations, investigation of groundwater quality in the vicinity of piezometers, TP-1, TP-4, TP-5, and TP-11, and additional geophysical investigation in the area west of the landfill.

The scope of this investigation will include the following:

- Mobilize a hydraulic probing unit to the site,
- Install probe borings and temporary monitoring wells, as necessary,
- Collect groundwater samples and have those samples analyzed for constituents of concern,
- Collect hydrogeologic information from probe borings and temporary monitoring wells,
- Evaluate the lateral and vertical limits of the constituents of concern in groundwater and the effectiveness of the existing monitoring well system,
- Collect stream sediment and surface water samples from Green's Creek at locations upstream from previous stream sampling locations,
- Conduct single well response tests and analyze the test data to provide hydraulic conductivity estimates,
- Conduct a geophysical survey to delineate the lateral boundaries of the waste in the former landfill area and locate accumulations of buried metal within the landfill and other areas of the site, and
- Prepare a supplemental site characterization report.

2.0 SITE SETTING

2.1 FACILITY LOCATION AND SITE DESCRIPTION

The Hercules facility is located on approximately 200 acres of land north of West Seventh Street in Hattiesburg, Forrest County, Mississippi. More specifically, the Site is located in Sections 4 and 5, Township 4 North, Range 13 West, just north of Hattiesburg, Mississippi (**Figure 1**). The facility has been in operation since 1923. The facility is bordered to the north by Highway 43 and Illinois-Central & Gulf Railroad, along with various residential and commercial properties. The southern property boundary is bordered by 7th Avenue; and by a cemetery and Zeon Chemical Company to the southwest. Across from these locations are residential areas. The eastern and western boundaries are bordered by sparsely populated residential areas.

The facility's historical operations consisted of wood grinding, shredding extraction, fractionation, refining, distillation, and processing of rosin from pine tree stumps. Historically, over 250 products were produced from the above-referenced operations and included: modified resins, polyamides, ketene dimer, crude tall oil wax emulsions, and Delnav, an agricultural miticide. Structures at the facility include offices, a laboratory, a powerhouse, production buildings, a wastewater treatment plant, settling ponds, a landfill, and central loading and packaging areas.

2.2 TOPOGRAPHY AND SURFACE DRAINAGE

Surface water drainage patterns at the Site conform generally to the topography, which slopes toward Green's Creek on either side (**Figure 2**). Topography slopes generally to the south in the Wastewater Sludge Disposal Area, and to the north/northwest in the Former Industrial Landfill Area and the Former Delnav Production Area. A topographic divide located south/southwest of the Former Delnav Production Area separates north flowing surface water drainage to more east/southeast-trending drainage. The east-trending, perennial stream Green's Creek and its natural and man-made tributaries are the main surface drainage features in the area. Green's Creek leaves the Site at its northeast corner and subsequently runs into Bowie River, located approximately one (1) mile to the north/northeast.

2.3 SITE GEOLOGY AND HYDROGEOLOGY

The Site is located within the Pine Hills physiographic region of the Coastal Plain physiographic province. The topography of the region is characterized by a maturely dissected plain which slopes generally toward the southeast. The topography is dominated by the valleys of the Bowie and Leaf Rivers coupled with the nearly flat or gently rolling bordering terrace uplands.

The geologic formations beneath the Site are as follows (in descending order): Pleistocene alluvial and terrace deposits, the Miocene-aged Hattiesburg and Catahoula Sandstone formations, the Oligocene-aged Baynes Hammock Sand and Chickasawhay Limestone formations, and the Oligocene-aged Bucatunna Clay member of the Byron formation of the Vicksburg group. A conceptual cross section of the regional geology is shown on **Figure 3**.

The recent-aged alluvial and terrace deposits consist of flood plains and gravel, silts, and clays. The thicknesses of the alluvial and terrace deposits are variable due to erosion. Based upon drillers logs of wells located in the vicinity of the Site, thickness of the alluvial and terrace deposits is estimated to be approximately 50 feet. Groundwater at the site occurs within the alluvial and terrace deposits. A potentiometric surface map of the groundwater elevations within the alluvial and terrace deposits at the site is shown on **Figure 4**

Beneath the alluvial and terrace deposits lies the Hattiesburg formation, which is comprised predominantly of clay. Regionally, beneath Forrest County, the formation contains at least two (2) prominent sand beds from which a viable water supply is obtained. Logs from area wells indicate that the Hattiesburg formation ranges from approximately 130 feet to 260 feet in thickness.

The Catahoula sandstone underlies the Hattiesburg formation. It is not exposed near the facility, but is penetrated by numerous wells in the area. A drillers log of a municipal well approximately 1.25 miles northwest of the facility indicated that approximately 770 feet of Catahoula sandstone was encountered.

Near the Site, the Catahoula sandstone overlies the Chickasawhay limestone. Neither the Chickasawhay limestone nor the Bucatunna formation are considered to be very viable aquifers. The Bucatunna formation is comprised of clay and effectively act as a confining layer for the underlying Oligocene aquifer.

The Miocene aquifer is comprised of both the Hattiesburg and Catahoula sandstone formations. The aquifer system is composed of numerous interbedded layers of sand and clay. Because of their interbedded nature, the Hattiesburg and Catahoula sandstone cannot be reliably separated. The formations dip southeastward approximately 30 feet to 100 feet per mile. While this dip steepens near the coast, the formations thicken. The shallowest portions of the aquifer system are unconfined with the surficial water table ranging from a few inches to greater than six (6) feet below land surface. Deeper portions of the aquifer are confined, with artesian conditions common.

3.0 FIELD ACTIVITIES

During the supplemental site investigation, a Geoprobe® was used to investigate site conditions and define the lateral extent and vertical extent of the VOCs previously detected in groundwater samples. The Geoprobe® was also used to investigate groundwater quality in the vicinity of piezometers TP-1, TP-4, TP-5, and TP-11. Surface water and stream sediment samples were collected from Green's Creek at locations up stream from previous sampling locations to investigate the upstream limits of the constituents detected in previous surface water and stream sediment locations.

A geophysical survey was conducted this investigation. The geophysical survey involved data collection with non-intrusive instrumentation to delineate the lateral limits of the landfill area and to locate accumulations of buried metal within the waste matrix. As requested by the MDEQ, the geophysical survey also included a smaller, approximately ¾-acre, area in the western portion of the site. The survey in the western area of the site was intended to locate a potential burial area.

3.1 GROUNDWATER INVESTIGATION

The groundwater investigation conducted during this supplemental investigation consisted of the three following components:

1. Investigation of the extent of VOCs
2. Investigation of groundwater quality in the vicinity of TP-1, TP-4, TP-5, and TP-11
3. Re-sampling of permanent monitoring wells MW-1, MW-4, MW-10 and MW-11.

3.1.1 Investigation of the extent of VOCs

Investigation of the extent of the VOCs previously detected in permanent monitoring wells at the site centered on monitoring well MW-8 and, to a lesser extent, monitoring well MW-9. Although VOCs have been detected in monitoring wells MW-4 and MW-11, the locations of these two monitoring wells between the sludge pits and Green's Creek left little room for additional sampling points. More importantly, the investigation was centered on monitoring well MW-8 due to the concentrations of VOCs detected during previous monitoring events. A representative of the MDEQ was on site during the investigation of the extent of VOCs.

The investigation in the vicinity of MW-8 was conducted by installing temporary monitoring wells in a radial pattern from MW-8. After installing initial temporary monitoring wells, groundwater samples were collected for VOC and Dioxathion analysis. The samples were submitted to by Bonner Analytical and Testing Company (BATCO) for analysis. VOC analyses were conducted on a rapid turn around (approximately 24 hours), and the VOC analytical results

were used to determine the need for additional sampling points. Dioxathion analyses were conducted on a standard laboratory turn around of approximately two weeks, and the Dioxathion results were, therefore, not used to determine sample point placement. Sampling continued until VOC analytical results for samples collected from downgradient locations indicated that constituents detected were less than their respective Target Remedial Goals (TRGs). The TRGs are found in the Tier 1 Target Remedial Goal Table of the Final Regulations Governing Brownfields Voluntary Cleanup And Redevelopment In Mississippi, published by the Mississippi Commission on Environmental Quality and adopted May 1999 and revised March 2002.

To investigate the extent of the VOCs previously detected in groundwater samples collected from MW-8 and MW-9, fifteen borings, GP-1 through GP-9 and GP-13 through GP-18, were installed using a Geoprobe® on August 11, 2003 through August 14, 2003. Geoprobe® boring locations are shown on **Figure 2**. Boring GP-1 refused at shallow depth and groundwater was not encountered. Temporary groundwater monitoring wells were installed in the remaining 14 borings. Groundwater samples were collected from the temporary monitoring wells installed in borings GP-2, GP-4 GP-5, GP-6, GP-7, GP-8, GP-9, GP-13, GP-14, GP-15, GP-17 and GP-18. The temporary monitoring wells installed in borings GP-3 and GP-16 yielded insufficient water for sample collection. As previously discussed, the investigation was conducted in an iterative manner, and concentrations of VOCs above applicable TRGs were not detected in the groundwater sample collected from GP-6. Therefore, the sample collected from GP-17, which is located downgradient of GP-6, was not analyzed.

Groundwater encountered in the temporary monitoring wells occurred in saturated alluvial sediments and fill overlying a dense clay unit interpreted to be the Hattiesburg formation. Borings installed for the temporary groundwater monitoring wells refused within the upper 2 feet to 4 feet of the clay. Some borings refused on solid objects in fill material prior to encountering clay, therefore, not all borings could be extended to the top of the dense clay. Temporary groundwater monitoring wells installed during this investigation were installed to the top of the clay or to Geoprobe® refusal, whichever was shallower. In most locations, the alluvium and any overlying fill had a combined thickness of approximately 20 feet, and the saturated zone ranged from approximately 4-feet to 8-feet in thickness.

During the investigation of the extent of the VOCs in groundwater, one soil sample was collected from the boring for temporary monitoring well GP-4. Temporary monitoring well GP-4 was located south of MW-8 in a suspected potential source area. Strong odors were observed from soil core recovered from the boring, and a representative of the MDEQ present at the site requested a sample of the soil core retrieved from 7 feet below ground surface (bgs) to 8 feet bgs. A vertical split of the soil core was also collected and submitted to BATCO for analysis of VOCs.

3.1.2 Investigation In The Vicinity Of Selected Piezometers

The groundwater investigation also included groundwater sample collection from the vicinity of piezometers TP-1, TP-4, TP-5, and TP-11. The groundwater samples were collected by installing temporary monitoring wells with a Geoprobe® within a few feet of each of the piezometers. Temporary monitoring well GP-12 was installed to provide a groundwater quality sample in the vicinity of TP-1, which is located in the central portion of the active plant area. Temporary monitoring well GP-11 was installed to provide a groundwater quality sample in the vicinity of TP-4, which is located in the northwest corner of the extreme western portion of the site. Temporary monitoring well GP-10 was installed to provide a groundwater quality sample in the vicinity of TP-5, which is located in the central portion of the western end of the site. Temporary monitoring well GP-9 was installed to provide a groundwater quality sample in the vicinity of TP-11, which is located west of the former landfill area. Temporary monitoring well GP-9 was a dual purpose sampling point that was also installed to provide data regarding the extent of VOC detected in previous groundwater samples as discussed in Section 3.1.1. The piezometers and temporary monitoring wells are shown on **Figure 2**. Temporary monitoring wells GP-9, GP-10, GP-11 and GP-12 were installed and sampled on August 12, 2003 through August 14, 2003.

As requested by MDEQ, groundwater samples collected from the temporary monitoring wells installed adjacent to piezometers TP-1, TP-4, TP-5, and TP-11 were analyzed for VOCs, semi-volatile organic compounds (SVOCs) and Dioxathion.

3.1.3 Re-sampling of Selected Monitoring Wells

Collection and analysis of groundwater samples from monitoring wells MW-1, MW-4, MW-10, and MW-11 was also included in the groundwater investigation. These four permanent monitoring wells were sampled on August 28, 2003. Other site monitoring wells were not installed during this sampling event. Monitoring wells MW-4, MW-10, and MW-11 were sampled at the request of the MDEQ. Monitoring well MW-1 was included to provide background groundwater data.

As requested by the MDEQ, groundwater samples collected from the permanent monitoring wells were analyzed for VOCs and Dioxathion.

3.2 GEOPHYSICAL INVESTIGATION

On September 2, 2003 through September 6, 2003, geophysical investigation was conducted in two areas of the site, the former landfill area and a smaller area identified in the field by the MDEQ. The geophysical survey areas are shown on **Figure 2**. The purpose of the geophysical investigation of landfill was to identify the limits of the filled area. The purpose of the geophysical investigation of the smaller area identified by the MDEQ was to locate accumulations of subsurface metal. Ground conductivity methods and magnetic intensity

methods were used for the geophysical surveys of both areas. Electrical conductivities of subsurface materials were measured using a Geonics, Ltd., Model EM31. The EM31 is useful in detecting buried metal, inorganic groundwater plumes, and landfill cells. Magnetic intensity enhances data interpretation for subsurface magnetic materials such as buried metallic objects and was measured using a Geometrics, Inc., Model G-858 cesium vapor magnetometer. Details of the geophysical survey methods and procedures are described in **Section 4.9**.

3.2.1 Former Landfill Area

A former landfill is located north of the active plant area. The landfill was reported to have operated from approximately 1950 to approximately the early 1970's. The landfill was reportedly used to dispose of boiler ash, miscellaneous trash and debris, and other metallic objects such as empty drums. The practice at the plant at that time was to burn any organic waste materials containing fuel value in the industrial boiler. The approximate boundaries of the former landfill can be topographically identified. A previous geophysical investigation was conducted in 1993 by Black and Veatch Waste Science and Technology Corporation (Black and Veatch) for the U.S. Environmental Protection Agency. The results of the previous geophysical investigation were discussed the *Site Inspection Report* (Black and Veatch, 1993). The landfill area investigated was reported to have the approximate dimensions of 150 by 250 feet in the Black and Veatch report.

In general, conductivity and magnetic intensity data were collected at ten-foot intervals along lines spaced ten feet apart over an area 400 feet east-west and approximately 560 feet north-south. However, various site features, such as wooded areas and fences, made complete coverage of the area impractical. Survey lines were terminated approximately 10 feet south of the fence along the northern property boundary. Dense undergrowth in the wooded area on the north side of the survey area resulted in difficult and time consuming efforts to open survey lines through the wooded area. In order to efficiently open lines through the wooded area, yet maintain effective data density, lines were opened on 20-foot centers through the wooded area. Measurements of both components of terrain conductivity (quadrature and inphase) and magnetic intensity were recorded at 2,141 discrete locations across the former landfill area. Geophysical data are included in **Appendix A**.

3.2.2 Small Geophysical Grid

Geophysical investigation was also conducted in an area 160 feet east-west and 200 feet north-south that was designated in the field by a representative of the MDEQ. The small grid is located west of the main plant area near the intersection of Europa Road and Bacchus Ave. Conductivity and magnetic intensity data were collected at 10-foot intervals along lines spaced 20 feet apart. Measurements of both components of terrain conductivity (quadrature and inphase) and magnetic intensity were recorded at 189 discrete locations in the small geophysical grid. Geophysical data are included in **Appendix A**. A representative of the MDEQ was present during data collection for the small geophysical grid.

3.3 Surface Water and Stream Sediment Investigation

As requested by the MDEQ, surface water and stream sediment samples were collected from Green's Creek at the closest practical location to the point where Green's Creek enters the Hercules property. This sample location, CM-0, is shown on **Figure 2**. For comparison, a surface water sample was also collected from the previous surface water sampling location CM-1. The surface water samples and the stream sediment samples were analyzed for VOCs and Dioxathion.

4.0 METHODS AND PROCEDURES

Unless otherwise stated, field activities will be conducted in accordance with the Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EPA Region IV, November, 2001), (EISOPQAM).

4.1 BORING ADVANCEMENT

Borings were advanced using a direct-push technology, hydraulic probing apparatus (Geoprobe® or similar) equipped with a soil coring device (MacroCore® or similar). The MacroCore® device was driven to the target depth by the Geoprobe, opened to allow soil to enter the device, and driven across the desired sample interval. Ideally, a four-foot long soil core, collected from a precise interval, would then be retrieved from the boring. In practice, the nature of the soil matrix, the presence of fill materials, caving of the side walls of the boring, or equipment malfunctions often prevent full recovery of the soil core. Each boring was cored continuously from the surface to the total depth of the boring. Copies of the boring logs are included in **Appendix B**.

4.2 SOIL SAMPLE COLLECTION

Soil samples were collected using the Geoprobe® with MacroCore®, 2.5-inch diameter, 4-foot long soil coring device. Each soil samples was collected in a new, disposable, plastic liner tube. Soil core lithology was described in the field based on visual characteristics, and the cores were screened immediately after opening using a photo-ionization detector (PID). The PID was calibrated according to manufacturer's instructions each day before initiating soil boring activities.

4.3 GROUNDWATER SAMPLING

Groundwater samples were obtained through the installation of temporary monitoring wells. Immediately following the completion of borehole advancement a temporary monitoring well was installed into the open borehole. Temporary monitoring wells were installed to bracket the observed water table. For each temporary monitoring well, a 10-foot long well screen was installed to the total depth of the boring. Boring and temporary monitoring wells were installed to the top the dense clay interpreted to be the Hattiesburg formation.

Temporary monitoring wells were completed by installing a one-inch (I.D.) PVC screen and riser into the uppermost water-bearing interval. Filter sock was placed over the well screen and secured to the screened interval prior to installation into the borehole. The filter sock has a screen mesh of approximately 240 microns, which is sufficient to retain most fine sand and

larger particles. 20/40 silica sand was then added around the screen to a depth of approximately two feet above the top of the screen. A two-foot thick bentonite seal was then placed above the sand. To prevent surface water from entering the boring, the remaining portion of the open hole was also filled with a high solids bentonite seal.

4.3.1 Well Development

Temporary monitoring wells were developed by pumping with a peristaltic pump until the discharge from the well was relatively free and clear of suspended sediment.

4.3.2 Groundwater Sample Collection

Prior to collecting a groundwater samples, the temporary monitoring wells were purged using either *low-flow/low-stress* or traditional volume-based bailer, or similar, techniques. The *low flow/low stress* technique consisted of slowly lowering dedicated tubing connected to a peristaltic pump (or similar device) into the water-bearing zone. Purging consisted of withdrawal of water at a rate that was in equilibrium with recharge (e.g., stabilized water table). Purging continued until field parameters (temperature, pH, specific conductance, and turbidity) stabilized.

If temporary and permanent monitoring wells where the yield of the well is insufficient to support the application of the *low flow/low stress*, traditional volume-based purging using a peristaltic pump were employed. Volume based purging will be continued until at least three (3) volumes of water were evacuated and field parameters stabilize or until five (5) well volumes of water were purged. The field parameters were measured with calibrated instruments and recorded in the field book along with the cumulative amount of water evacuated and time of batch parameter testing.

After the field parameters stabilized (regardless of the purge method), groundwater to be collected for VOC analysis was sampled by stopping the peristaltic pump, removing the influent tubing from the well, and allowing the groundwater contained in the influent tubing to drain into the sample containers. Groundwater collected for other analyses was collected from the discharge stream (tubing or bailer) directly into the laboratory-supplied sample containers for subsequent laboratory analysis. When field replicates were collected for Quality Assurance/Quality Control (QA/QC) concerns, the sample bottles were filled by alternating aliquots in each replicate bottle until each bottle was filled.

Subsequent to sampling, sample containers were placed on ice and delivered to BATCO for analysis. Chain-of-custody documentation accompanied all samples. Personnel involved in sampling wore clean, disposable gloves, which were changed between each sample collection. Non-disposable sampling equipment was decontaminated as outlined in **Section 4.6**.

4.4 Surface Water and Stream Sediment Sampling

Surface water was collected from Green's Creek by submerging the laboratory supplied sample containers into the flow of the creek to a depth sufficient to fill the containers. Samples were collected beginning downstream and working upstream to mitigate the potential for cross-contamination related to disturbed materials drifting downstream to subsequent sampling locations. To prevent disturbed particles from entering the sample containers, the samples were collected upstream of the sampler. Surface water samples were placed in a iced cooler and delivered under chain-of-custody to BATCO for analysis.

Stream sediments were sampled immediately after collecting the surface water sample from the same location. Sediments to be analyzed for Dioxathion were collected using a stainless steel spoon. The spoon was decontaminated prior to each use. Sediments to be analyzed for VOC were collected using single-use, sampling syringes provided by BATCO. Sediment samples were placed into iced coolers and delivered under chain-of-custody to BATCO for analysis.

4.5 Analytical Methods

Groundwater samples were analyzed by BATCO for volatile organic compounds (VOC) according U.S. EPA SW-846 method 8260B and Dioxathion according to Hercules' *Sampling and Analysis Protocol for Determination of Dioxathion in Water*. The groundwater samples collected from locations adjacent to piezometers TP-1, TP-4, TP-5, and TP-11 were also analyzed for semi-volatile organic compounds (SVOCs) according to U.S. EPA SW-846 method 8270.

Surface water and stream sediment samples were analyzed for VOC according U.S. EPA SW-846 method 8260B and Dioxathion according to Hercules' *Sampling and Analysis Protocol for Determination of Dioxathion in Water.*

4.6 Decontamination

Probe equipment used to collect subsurface soil and groundwater samples (rods and samplers, temporary downhole casings, screens points) and other equipment used in sample collection were decontaminated by the following procedure:

1) Phosphate-free detergent wash.
2) Potable water rinse.
3) Deionized water rinse.
4) Isopropanol rinse.
5) Organic-free water rinse or air dry.
6) Individual tin foil wrap.

For boring activities, new disposable sample liners were used between sample intervals within the same boring, thereby requiring decontamination between boring locations only.

4.7 QA/QC Procedures

To attain Site QA/QC objectives in terms of accuracy, precision, completeness, comparability, and representativeness, QA/QC samples were collected and sent to the analytical laboratory for analysis. QA/QC samples collected in the field consisted of field duplicates, splits, and equipment rinsate blanks.

Field split samples of groundwater were collected by alternating groundwater aliquots into the container for the split and the container for the normal sample. Split samples were collected in this manner for both regulatory oversight and internal QA/QC. During this investigation one equipment rinsate sample, RS-01, was collected during temporary well installation by running deionized water through a decontaminated core tube and disposable liner. A field duplicate groundwater sample was collected from temporary monitoring well GP-8. Matrix spike and matrix spike duplicate groundwater samples were also collected from temporary monitoring well GP-8. Blind duplicate groundwater samples were collected from three locations. Blind duplicate sample BD-1 was collected from temporary monitoring well GP-7. Blind duplicate sample BD-2 was collected from temporary monitoring well GP-10. Blind duplicate sample BD-3 was collected from permanent monitoring well MW-1.

One groundwater split sample was collected from temporary monitoring well GP-6 for the MDEQ. One soil split sample was also collected for MDEQ from the boring for GP-4 from 7 feet bgs to 8 feet bgs. Both the soil and groundwater splits were collected at the request of the MDEQ and delivered to the MDEQ representative at the site immediately after sample collection.

The soil sample was collected by splitting sampled section of the soil core vertically. The smeared portion of the sample material that had been in contact with the soil sample liner was removed from the sample material using a decontaminated stainless steel spatula. The soil sample material was to be analyzed for VOCs, and, per EISOP procedures, was not homogenized prior to placing in containers. The sample material was placed directly into new, pre-cleaned, soil sample containers. One container was delivered to the MDEQ representative, the other sample container was placed in an iced cooler. The soil sample was delivered, under chain-of-custody, to BATCO for analysis.

4.8 Derived Waste Management

Waste derived during the temporary monitoring well installation and sampling, (e.g., soil cuttings, plastic sampling tubes, decontamination water, well purge water, personal protective equipment, etc.) were containerized immediately following generation and staged near the road for subsequent management. Containers generated during investigative activities were marked in

the field. Groundwater generated during sampling of permanent monitoring wells was managed through the wastewater treatment plant at the site. After review of the analytical data, it is expected that purge water and decontamination water generated during temporary monitoring well installation and sampling will also be handled through Hercules' wastewater treatment facility. Soil cuttings generated during temporary monitoring well installation will be sampled to determine how they may best be handled.

4.9 GEOPHYSICAL SURVEY

4.9.1 Electromagnetic Terrain Conductivity

Ground conductivity is a non-intrusive method of measuring lateral variation in the electrical conductivity of subsurface materials. Measurements of electrical conductivity will be made with an EM31 Meter. The device is manufactured by Geonics Limited, of Mississauga, Ontario. The EM31 is simple in form, consisting of a magnetic field transmitting coil, a magnetic field receiving coil, and associated electronics. The coils of the instrument are held co-planar, at a fixed inter-coil spacing of twelve (12) feet. The transmitter coil is energized with an audio frequency alternating current. The resulting primary magnetic field (Hp) induces small electrical currents in the ground. These currents induce secondary magnetic fields (Hs) which, together with the primary field, are sensed by the receiver coil. Electrical conductivities of subsurface materials are deduced from the ratios of secondary to primary fields.

The EM31 is constructed in such a way that the secondary to primary magnetic field ratio (Hs/Hp) is proportional to ground conductivity. The phase of the secondary field lags that of the primary by at least 90°, due to inductive coupling between the transmitter coil and the target conductive material. Additional lag is determined by the properties of the conductor as an electrical circuit. For very poor conductors, the additional lag is close to zero. For very good conductors, it is close to 90°. Generally, the secondary field is somewhere between 90° and 180° out of phase with the primary. That portion of Hs which is only 90° out of phase is called the quadrature component. The EM31 is calibrated to provide quadrature values directly in standard conductivity units of milliSiemens per meter (mS/m). The fraction of Hs which is fully 180° out of phase with Hp is called the inphase component. Inphase values are provided in parts per thousand (ppt) of the primary field.

Both quadrature and inphase values were simultaneously recorded by an automatic data logger for each survey point in the subject area. Both are influenced by the broad range of subsurface conductivities resulting from minute dissolution of soil particles, inorganic groundwater plumes, fill materials and buried metals. Being generally more sensitive to variations in relatively poor conductors, quadrature readings are used to interpret such features as relative inorganic groundwater concentrations. Being generally more sensitive to good conductors, on the other hand, inphase readings are the primary indicators of subsurface metal. Both quadrature and inphase values were recorded during this survey.

The secondary field signal received and processed by the EM31 does not represent ground conductivity at a particular depth. Instead, it represents an integration of conductivities through thicknesses of tens of feet. Eighty (80%) percent of the instrument reading, for example, is due to materials lying at depths shallower than about thirty (30) feet. The thirty (30) foot level may be considered an "effective" exploration depth for detection of significant groundwater plumes. The maximum depth for detection of metallics is a function of the type and amount of buried material. Tightly packed accumulations low-grade steel can be found at depths of over 20 feet.

The EM31 was calibrated according to manufacturer instructions, at the beginning of each survey session. Calibrations were carried out at a fixed location within the survey area. For this survey the GP-17 location was used as a base station. The GP-17 location was relatively free of magnetic interference and near enough to both survey areas to be convenient. Both quadrature and inphase values were recorded. After data collection, the devices was taken back to the calibration point. Quadrature and inphase values were, again, recorded. The differences in the two data sets were used to determine and correct for "machine drift".

4.9.2 Magnetic Intensity

Total magnetic field intensity was measured with a Geometrics, model G858 cesium vapor magnetometer. The device measures total field intensities by detecting a self-oscillating split-beam cesium vapor mechanism. The G-858 was rigged with one sensor at waist height of the operator. The device has a data logging capability that was used to record total magnetic field intensity at each survey location. A series of manual readings was collected at a fixed location at approximately one-hour intervals. The intensity versus time curves generated from the manual readings were used to correct the G-858 survey data for diurnal variations of the earth's magnetic field. The data set produced reflect the anomalous fields produced by buried magnetic material, surficial magnetic material and other magnetic field from cultural sources (electric utilities, etc.). The effective exploration depth of the device is a function of the type and amount of underlying metal. A manual summarizing the theory and operation of magnetometers is provided by the manufacturer (Breiner, 1973).

4.10 OTHER PROCEDURES

Procedures for soil boring and well installation, sample collection, sample containerization and packing, sample shipment, cross-contamination control, drummed material disposal, field documentation, chain-of-custody, data review, and other work items not specifically covered in this document were conducted in accordance with the EISOPQAM.

5.0 RESULTS

5.1 GEOLOGY AND HYDROGEOLOGY

Borings installed during this investigation encountered soils that are generally described as gray and tan, fine-grained, sand with varying amounts of fill material, silt, clay and gravel from the surface to depths ranging from 5 feet below ground surface to greater than 22 feet below ground surface. These sandy soils are typical of the alluvial and terrace deposits discussed in Section 2.3. Underlying the fill material and/or sandy soils is a gray, stiff, silty and/or sandy clay. Descriptions of the clay are consistent with descriptions of the Hattiesburg formation described in Section 2.3. Geoprobe® borings at the site refused in the clay, and the thickness of the clay beneath the site was not determined. However, published sources discussed in Section 2.3 indicate that the Hattiesburg formation may be over 130 feet thick beneath the site.

Observations during this investigation and previous investigations indicate that groundwater occurs in the alluvium and fill at the top of the clay. Water level information was collected from monitoring wells MW-1 through MW-6, the 14 piezometers, 13 temporary monitoring wells, and the four (4) staff gauges on October 31, 2003. Based on the surveyed elevations of the wells, piezometers, and staff gauges, water level elevations were calculated. A summary of the water level information data is provided in **Table 1**. Based on the water level information, a potentiometric surface map has been prepared for the uppermost saturated interval and Green's Creek. The potentiometric surface map is shown on **Figure 4**.

As reported during previous investigations, groundwater in the uppermost, saturated interval beneath the site tends to mimic surface topography. In the active portions of the plant operations, which are located in the southeastern portion of the site, the potentiometric surface indicates the presence of a southwest to northeastward trending divide. The potentiometric surface map indicates that groundwater located to the northwest of the divide would tend to move northwestward towards Green's Creek. Likewise, groundwater southeast of the divide would tend to move southeastward. On the north side of Green's Creek, the potentiometric surface indicates that groundwater in the uppermost, saturated interval moves generally southward towards Green's Creek.

Surface water enters the site on the west side of the property via Green's Creek. Green's Creek flows towards the east in the northern portion of the property. Elevations of the stream surface are significantly lower than the groundwater. This indicates that, while groundwater may contribute to flow in Green's Creek, hydraulic connection between the uppermost saturated interval and Green's Creek is retarded. The retardation of the water moving from the sand to the creek is likely due to silt and clay in the sand adjacent to the creek.

5.2 GROUNDWATER QUALITY

Analytical results for groundwater samples analyzed during this investigation are summarized in **Tables 2, 3, and 5**. Copies of the laboratory analytical reports are included in **Appendix C**. Sample locations are shown on **Figure 2**.

The following sections are intended to provide a brief overview of the laboratory analytical results, and not an exhaustive discussion of the analytical data.

5.2.1 Investigation of the Extent of VOCs

Analytical results for VOCs and Dioxathion detected in the samples collected from the temporary monitoring wells are summarized in Table 2 and Table 3, respectively.

Thirty-one VOCs were detected in the groundwater sample collected from temporary monitoring well GP-2. Fifteen of the thirty-one VOCs detected in the groundwater sample collected from temporary monitoring well GP-2 were above their respective target remedial goals (TRGs). The TRGs are found in the Tier 1 Target Remedial Goal Table of the Final Regulations Governing Brownfields Voluntary Cleanup And Redevelopment In Mississippi, published by the Mississippi Commission on Environmental Quality and adopted May 1999 and revised March 2002. Those 15 VOCs are 1,1-Dichloroethane, Benzene, Toluene, Bromodichloromethane, Carbon Tetrachloride, Chloroethane, Chloroform, 1,2-Dibromo-3-chloropropane, 1,2-Dichloroethane, 1,2-Dichloropropane, Hexachlorobutadiene, Naphthalene, Tetrachloroethene, 1,1,2-Trichloroethane, and Vinyl Chloride.

Thirteen VOCs were detected in the groundwater sample collected from temporary monitoring well GP-4. Two of the five VOCs, Benzene and Naphthalene, were above their respective TRGs.

One VOC, Toluene, was detected in the groundwater samples collected from temporary monitoring wells GP-5, GP-6, and GP-8. The concentrations of Toluene detected in these samples were below the TRG for Toluene of 1000 μg/L.

Two VOCs were detected in the groundwater sample collected from GP-7. One of the two VOCs, Benzene, was detected at a concentration above the TRG for Benzene of 5 μg/L.

VOCs were not detected in the groundwater samples collected from temporary monitoring wells GP-9, GP-13, and GP-18.

One VOC, Benzene, was detected in the groundwater samples collected from temporary monitoring wells GP-14. The concentration of Benzene detected in the groundwater sample collected from GP-14 was above the TRG.

Seventeen VOCs were detected in the groundwater sample collected from temporary monitoring well GP-15. One of the seventeen VOCs, Benzene, was detected at a concentration above the TRG.

The investigation of the VOCs in groundwater did not indicate a definitive source area for the VOCs detected in groundwater. Instead, multiple source areas appear to be involved. The proximity of MW-8 and GP-2 to the former landfill and the lack of more elevated concentrations of the constituents detected in these two locations would indicate that constituents detected in these two locations are related to the landfill. However, the detection of VOCs, primarily the VOC Benzene, at locations up gradient of GP-2 and MW-8 (e.g. GP-4 and GP-7) indicates that other sources of Benzene may be present. The detection of elevated concentrations of Benzene as well as other VOCs not detected at other sampling locations (e.g. sec-Butylbenzene, Chlorotoluenes, and Dichlorobenzenes) indicates that the adjacent rail spurs may also be an area where release of constituents has historically occurred.

The extent of the VOCs in groundwater appears limited. With the exception of the Naphthalene detection in the groundwater sample collected from GP-8, concentrations of VOCs above TRGs were not detected in groundwater samples collected from down gradient locations on the east side of the railroad that borders the western side of the former landfill area. Naphthalene was not detected in the groundwater sample collected from GP-9, which is located down gradient of GP-8.

Trans-Dioxathion was detected in the groundwater samples collected from GP-4, GP-7, and GP-8. Trans-Dioxathion was not detected in the groundwater samples collected from GP-2, GP5, GP-6, GP-9, GP-13, GP-14, GP-15, GP-17 and GP-18. The detections of Trans-Dioxathion were less than the TRG for total Dioxathion of 54.8 μg/L

Neither Cis-Dioxathion nor Dioxenethion were detected in the groundwater samples collected from the temporary monitoring wells.

5.2.2 Investigation in the Vicinity of Selected Piezometers

Groundwater samples were collected and analyzed from temporary monitoring wells GP-9, GP-10, GP-11, and GP-12, which were located near piezometers TP-11, TP-5, TP-4, and TP-1, respectively. Analytical results for VOCs and Dioxathion detected in the samples collected from temporary monitoring wells are summarized in Table 2 and Table 3, respectively.

One VOC, Benzene, was detected in the groundwater samples collected temporary monitoring wells GP-11 and GP-12 at concentrations above the TRG.

VOCs were not detected in the groundwater samples collected from temporary monitoring wells GP-9 and GP-10.

Dioxenethion, Trans-Dioxathion, and Cis-Dioxathion were not detected in the groundwater samples collected from GP-9, GP-10, GP-11, and GP-12.

SVOCs were not detected in the groundwater samples collected from GP-9, GP-10, GP-11, and GP-12.

5.2.3 Re-sampling of Selected Monitoring Wells

Analytical results for VOCs detected in the samples collected from permanent monitoring wells are summarized in Table 5.

Eight VOCs were detected in the groundwater samples collected from MW-1. One of those eight VOCs, Hexachlorobutadiene, was detected at a concentration above the TRG for Hexachlorobutadiene of 0.859 μg/L.

One VOC, Bromoform, was detected in the groundwater sample collected from permanent monitoring well MW-10. The concentration of Bromoform detected in the sample collected from MW-1 was less than the TRG of 8.48 μg/L.

VOCs were not detected in the VOC samples collected from permanent monitoring wells MW-4 and MW-11. Dioxathion (cis or trans) and Dioxenethion were not detected in the groundwater samples collected from MW-1, MW-4, MW-10, and MW-11.

5.3 GEOPHYSICAL INVESTIGATION

Geophysical investigation using conductivity and magnetic methods was conducted in two areas of the site. The geophysical investigation in the former landfill area was conducted to delineate the limits of the fill. The geophysical investigation of the smaller area in the western portion of the site was conducted to locate accumulations of buried metal.

5.3.1 Former Landfill Area

Terrain in the former landfill area is generally grassed with a section in the northeastern portion of the survey area that is covered with a few large trees and very heavy underbrush. The forested area is bounded on the north end by the road, and is approximately 200 feet from east to west. The forested area is approximately 50 feet wide on the western end and widens to over 200 feet wide on the eastern end. Historically, the landfill area has been defined by topography and site features. The former landfill area is generally flat and approximately the same elevation as Europa Road, which was immediately south of the assumed southern limit of the fill. The former landfill area slopes to the west, north and east. The bottom of the slope on the west, north and east has been considered the limits of the filled area. However, in the southeastern and southwestern corners of the former landfill area, the slope is gentle and the relief is low.

Therefore, marking the exact limits of the fill based on topography is relatively difficult in these areas.

The geophysical survey area for the former landfill area was designed to cover and extend somewhat beyond the topographically-defined boundaries of the filled area. The geophysical survey area is bounded on the east by the ethylene oxide storage area and the north by the fence marking the property boundary. On the south, the survey extended to within a few feet of Europa Road where cultural interference from remnant building foundations, buried utilities, and other cultural interference precluded useful data collection. In the southwestern corner of the landfill, where topographic relief indicating the limits of the fill was less obvious, the geophysical survey limit was based on the judgement of the geophysicist in the field.

Conductivity and magnetic intensity values in the vicinity of the former landfill area have been contoured using a commercially available contouring software and the contours are shown on **Figures 8, 9**, and **10**. To the extent possible, surface metal and other cultural interference that were noted in the field have been evaluated. The largest surface feature that has resulted in geophysical data anomalies is the railroad tracks, which arc through the northwestern corner of the survey area. The effect of the railroad tracks on the geophysical data is particularly obvious in the magnetic intensity data, which is shown on **Figure 10**. The remnant building foundations, which are located along the southern edge of the survey area, and monitoring well MW-8 and piezometer TP-10, which are located along the southern edge of the survey area, also produce obvious data anomalies. Other surface features have been accounted for in the analysis of the data, but they will not be listed individually.

Based on conductivity and magnetic intensity data not affected by surface features and other cultural interference, the limits of the fill have been interpreted. The limits of the former landfill area that were interpreted from the geophysical data are shown on **Figure 11**. The interpreted limits of the fill are based primarily on the large cluster of anomalies observed in all three geophysical data sets. These anomalies are, apparently, due to the presence of subsurface metal. However, the size, shape, and magnitude of the anomalies that comprise the cluster are indicative of multiple metal objects of varying size, shape, depth and composition. This cluster of overlapping anomalies is typical of what is expected from a landfill.

The magnitude of the magnetic anomalies in the southwestern portion of the filled area is somewhat less than other portions of the filled area. Also, in this same area, conductivity data indicate fewer, more isolated buried metal objects, but quadrature conductivity values remain elevated. This indicates a difference in the character of the fill in the southwestern portion of the filled area. The difference in the character of the fill may be due to the thickness, the type of fill material, or both.

5.3.2 Small Geophysical Grid

The terrain in the small geophysical survey grid is approximately level and grassed. It is bounded on the west by Bacchus Avenue and on the east by a metal shed used to store fire

fighting equipment. As with many areas of the Hercules site, pieces of scrap metal of varying sizes and compositions are present at the surface.

Conductivity and magnetic intensity values measured in the small geophysical grid have been contoured using commercially available contouring software and the contours are shown on **Figures 12, 13, and 14**. To the extent possible, surface metal and other cultural interference that were noted in the field have been evaluated. The most prominent geophysical data anomaly is the series of high/low conductivity and magnetic intensity measurement that cross the southeastern corner of the site. This anomaly runs from approximately the metal fire fighting equipment shed towards a similar shed southwest of the survey area. This anomaly is interpreted to be a water pipe. Other anomalies related to surface metal and cultural features have been evaluated but will not be listed individually.

Figure 12, **13**, and **14** show several anomalies that can not be readily attributed to surface features/cultural interference. Therefore, the anomalies are interpreted to be related to accumulations of buried metal. The approximate limits of the buried metal producing the anomalies in the geophysical data are shown on **Figure 15**.

5.4 Surface Water and Stream Sediment Quality

During this investigation, two surface water samples and two stream sediment samples were collected from Green's Creek and those samples were analyzed for VOCs and Dioxathion. The samples were collected from locations CM-0 and CM-1, which are shown on **Figure 2**. Analytical results for these samples are summarized in **Table 6** for parameters detected.

Concentrations of 17 VOCs were detected in the surface water sample collected from sampling location CM-1. Ten of the 17 VOCs detected in the surface water sample collected from sampling location CM-1 were also detected in the surface water sample collected from CM-0. Sampling location CM-0 is located a few feet from the point where Green's Creek enters the Hercules property. It would appear that many of the constituents detected in the surface water collected from Green's Creek are from a source upstream of the Hercules facility.

Concentration of four VOCs were detected in the sediment sample collected from sampling location CM-1. Two of the four VOCs detected in the sediment sample collected from sampling location CM-1 were also detected in the sediment sample collected from CM-0. As stated above, sampling location CM-0 is located a few feet from the point where Green's Creek enters the Hercules property. It would appear that some of the constituents detected in the sediment collected from Green's Creek are from a source upstream of the Hercules facility.

Previous site investigation reported in the *Site Investigation Report* (Eco-Systems, 2003) indicate an upstream source for VOCs detected in surface water and stream sediments in Green's Creek. Data collected from this supplemental site investigation also indicate an upstream source for the some of the VOCs detected in samples from Green's Creek.

Dioxathion (cis or trans) and Dioxenethion were not detected in the surface water and sediment samples collected from locations CM-0 and CM-1.

6.0 FINDINGS AND CONCLUSIONS

The findings and conclusions of this report are based on, or reasonably ascertainable from, published information, field observations, and the results of specific laboratory analyses.

6.1 GEOLOGY AND HYDROGEOLOGY

Selected highlights of the geology and hydrogeology of the site are:

- Soils encountered in borings installed during this supplemental site investigation were described as silty, sandy, clayey alluvial deposits and fill materials overlying a dense, gray, sandy clay, which is interpreted to be the Hattiesburg formation. These results confirm information obtained during previous investigation.

- Groundwater occurs at the top of the dense clay.

- As described in previous investigations, in the active portions of the plant operations, the potentiometric surface indicates the presence of a southwest to northeast trending divide. Groundwater northwest of the divide would tend to move northwestward towards Green's Creek. Groundwater southeast of the divide would tend to move southeastward. North of Green's Creek, the potentiometric surface indicates that groundwater moves generally southward towards Green's Creek. Green's Creek enters the site at the western extremity of the site and flows generally eastward across the northern end of the site.

6.2 GROUNDWATER QUALITY

The findings and conclusions of the groundwater quality investigations conducted during this project are discussed in the following subsections.

6.2.1 Extent of VOCs in Groundwater

The highlights of the investigation of VOCs in groundwater include:

- Concentrations of VOCs above TRGs were detected in samples collected from temporary monitoring wells GP-2, GP-4, GP-7, GP-8, GP-14, and GP-15, that were installed to investigate the extent of the VOCs previously detected in groundwater samples from the site. Isoconcentration contour maps for carbon tetrachloride, benzene and naphthalene are shown on **Figures 5**, **6**, and **7** respectively. Due to the

concentrations and/or prevalence, these constituents are deemed representative of the nature and extent of the VOCs detected in groundwater at the site.

- The concentrations of VOCs detected in the samples collected from the temporary monitoring wells do not indicate a single source area for the VOCs.

- The extent of the concentrations of VOCs in the vicinity of monitoring well MW-8 have been defined within the limits of the temporary monitoring wells installed during this investigation. With the exception of Naphthalene in the groundwater sample collected from GP-4, concentrations of VOCs in groundwater above TRGs were not present in samples collected from temporary monitoring wells GP-6, GP-8, and GP-18, which are located down gradient of temporary monitoring wells GP-2 and GP-15. Naphthalene was not detected in the groundwater sample collected from GP-9, which is located down gradient of GP-8.

6.2.2 Extent of Dioxathion in Groundwater

Concentrations of Trans-Dioxathion were detected in groundwater samples collected from temporary monitoring wells GP-4, GP-7, and GP-8 at concentration less than the TRG for total Dioxathion of 54.8 µg/L. Cis-Dioxathion and Dioxenethion were not detected in groundwater samples collected from the site.

6.3 Geophysical Investigation

Conductivity and total magnetic intensity data were used to delineate the limits of the former landfill located north of the main plant area. The limits of the filled are interpreted from the geophysical data are shown on **Figure 11**.

Conductivity and total magnetic intensity data were used to identify accumulations of buried metal in an area west of the main plant area. Accumulations of subsurface metal indicated by the geophysical data are shown on **Figure 15**. Five areas of buried metal are identified on **Figure 15**.

6.4 Surface Water and Stream Sediment Quality

The highlights of the supplemental investigation of surface water and stream sediment in Green's Creek include the following:

- Concentrations of 17 VOCs were detected in the surface water sample collected from sampling location CM-1. Ten of the 17 VOCs detected in the surface water sample collected from sampling location CM-1 were also detected in the surface water sample collected from CM-0.

- Concentrations of four VOCs were detected in the sediment sample collected from sampling location CM-1. Two of the four VOCs detected in the sediment sample collected from sampling location CM-1 were also detected in the sediment sample collected from CM-0.
- Sampling location CM-0 is located a few feet from the point where Green's Creek enters the Hercules property. It would appear that many of the constituents detected in the surface water and sediments collected from Green's Creek are from a source upstream of the Hercules facility.
- Existing data do not indicate a definite onsite source for the VOCs detected in samples collected from Green's Creek.

TABLES

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TABLE 1
SUMMARY OF GROUNDWATER ELEVATION DATA
OCTOBER 31, 2003
Hercules, Incorporated
Hattiesburg, Mississippi

WELL NO.	TOC ELEVATION (ft.)[1]	WATER DEPTH (ft)[2]	GROUNDWATER ELEVATION (ft.)
PERMANENT MONITOR WELLS			
MW-1	174.12	7.79	166.33
MW-2[3]	160.07	7.19	152.88
MW-3	160.03	8.21	151.82
MW-4	159.75	11.29	148.46
MW-5	160.99	10.07	150.92
MW-6	174.05	9.41	164.64
MW-7		14.51	
MW-8	179.99	14.94	165.05
MW-9		12.49	
MW-10	159.88	11.55	148.33
MW-11	157.18	8.44	148.74
PIEZOMETERS			
TP-1	172.18	5.19	166.99
TP-2	171.72	11.89	159.83
TP-3	169.74	9.98	159.76
TP-4	163.64	9.42	154.22
TP-5	160.54	9.03	151.51
TP-6	158.63	9.04	149.59
TP-7	167.17	9.77	157.40
TP-8	183.79	14.59	169.20
TP-9	163.44	7.33	156.11
TP-10	179.69	14.70	164.99
TP-11	162.26	10.36	151.90
TP-12	159.95	11.82	148.13
TP-13	156.99	8.22	148.77
TP-14	164.35	7.66	156.69
STAFF GAUGES			
SG-1	150.11	NA	NA
SG-2	145.13	NA	NA
SG-3	144.03	0.15	144.18
SG-4	137.80	0.41	138.21

TABLE 1
SUMMARY OF GROUNDWATER ELEVATION DATA
OCTOBER 31, 2003
Hercules, Incorporated
Hattiesburg, Mississippi

TEMPORARY MONITORING WELLS			
GP-2	172.99	10.20	162.79
GP-3	172.73	11.83	160.90
GP-4	185.35	17.30	168.05
GP-5	170.11	7.29	162.82
GP-6	166.54	14.29	152.25
GP-7	183.80	14.78	169.02
GP-8	171.46	12.89	158.57
GP-9	161.84	9.88	151.96
GP-10	NA	7.99	
GP-11	NA	8.94	
GP-12	NA	5.27	
GP-13	175.67	8.51	167.16
GP-14	174.51	4.81	169.70
GP-15	179.73	19.92	159.81
GP-16	164.90	10.88	154.02
GP-17	157.79	6.14	151.65
GP-18	167.77	15.73	152.04

NOTES:

1- Elevations are in feet relative to mean sea level.
2 - Depth to water is in feet below top of casing. Staff gauge readings are in feet above the base of the staff.
3 - GP-2 casing was damaged. W.L. is relative to ground surface. Original TOC elevation was 173.47 ft msl.

TABLE 2

SUMMARY OF TEMPORARY MONITORING WELL VOC ANALYTICAL DATA

Samples Collected August 11 - 14, 2003
HERCULES, INC.
Hattiesburg, Mississippi

Analytes	Concentrations in micrograms per Liter (µg/L)														
	GP-2 (Water)	GP-4 (Water)	GP-5 (Water)	GP-6 (Water)	GP-7 (Water)	GP-8 (Water)	GP-9 (Water)	GP-10 (Water)	GP-11 (Water)	GP-12 (Water)	GP-13 (Water)	GP-14 (Water)	GP-15 (Water)	GP-18 (Water)	TRG[1]
1,1-Dichloroethene	**15**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	7
Benzene	**70500**	**269**	<1	<1	**89.6**	<1	<1	<1	**6.99**	**43**	<1	**6.19**	**14600**	<1	5
Trichloroethene	2.33	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5
Toluene	**4800**	80.9	20.7	13.6	8.35	10.4	<1	<1	<1	<1	<1	<1	3.67	<1	1000
Chlorobenzene	71.2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	3.17	<1	100
Bromodichloromethane	**1.71**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.168
n-Butylbenzene	3.76	1.23	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	243
sec-Butylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.66	<1	243
tert-Butylbenzene	<1	1.15	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	3.46	<1	243
Carbon Tetrachloride	**223**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5
Chloroethane	**18.4**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	3.64
Chloroform	**317**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.155
2-Chlorotoluene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	4.19	<1	NA
4-Chlorotoluene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	3.25	<1	NA
1,2-Dibromo-3-chloropropane	**6.06**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.2
1,2-Dichlorobenzene	1.78	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	3.03	<1	600
1,3-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2.99	<1	5.48
1,4-Dichlorobenzene	2.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2.56	<1	75
1,1-Dichloroethane	15	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	798
1,2-Dichloroethane	**27.8**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5
cis-1,2-Dichlorothene	46.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	70
1,2-Dichloropropane	**20.3**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5
Ethyl benzene	115	5.25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.54	<1	700
Hexachlorobutadiene	**1.11**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.859

Notes:

< indicates analyte not detected at or above listed method detection limit (MDL).

PQL is set as low point on the curve.

J result is estimated concentration above MDL but below PQL.

NA - Not applicable.

[1] Target Remediation Goals (TRG) are taken from the Tier 1 Goals Table of the Final Regulations Governing Brownfields Voluntary Cleanup and Redevelopment in Mississippi, MDEQ, March 2001. Bold text indicates concentration above applicable TRGs.

TABLE [illegible] (Continued)
SUMMARY OF TEMPORARY MONITORING WELL VOC ANALYTICAL DATA

August 11 - 14, 2003

HERCULES, INC.

Hattiesburg, Mississippi

Analytes	Concentrations in parts per billion (µg/L)														
	GP-2 (Water)	GP-4 (Water)	GP-5 (Water)	GP-6 (Water)	GP-7 (Water)	GP-8 (Water)	GP-9 (Water)	GP-10 (Water)	GP-11 (Water)	GP-12 (Water)	GP-13 (Water)	GP-14 (Water)	GP-15 (Water)	GP-18 (Water)	TRG[1]
Isopropylbenzene	2.1	4.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2.19	<1	679
p-Isopropyltoluene	61.7	33.8	<1	<1	<1	11.1	<1	<1	<1	<1	<1	<1	2.27	<1	NA
Naphthalene	**20.4**	**16.45**	<5	<5	<5	**52.4**	<5	<5	<5	<5	<5	<5	4.19 J	<5	6.2
n-Propylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	243
Styrene	4.49	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	3.47	<1	100
Tetrachloroethene	**30.9**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5
1,2,3-Trichlorobenzene	8.16	3.88 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	3.16 J	<5	NA
1,2,4-Trichlorobenzene	10.1	3.03 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	70
1,1,2-Trichloroethane	**39.4**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5
1,2,4-Trimethylbenzene	5.33	10.67	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	12.3
1,3,5-Trimethylbenzene	3.76	4.08	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	12.3
Vinyl chloride	**3.07**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2
Xylenes (total)	466	12.3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	7.82	<1	10000

Notes:

< indicates analyte not detected at or above listed method detection limit (MDL).

PQL is set as low point on the curve.

J result is estimated concentration above MDL but below PQL.

NA - Not applicable.

[1] Target Remediation Goals (TRG) are taken from the Tier 1 Goals Table of the Final Regulations Governing Brownfields Voluntary Cleanup and Redevelopment in Mississippi, MDEQ, March 2001. Bold text indicates concentration above applicable TRGs.

TABLE 3
SUMMARY OF TEMPORARY MONITORING WELL DIOXATHION ANALYTICAL DATA
Samples Collected August 28, 2003
HERCULES, INC.
Hattiesburg, Mississippi

Analytes	Concentrations in micrograms per Liter (µg/L)															
	GP-02 (Water)	GP-04 (Water)	GP-05 (Water)	GP-06 (Water)	GP-07 (Water)	GP-08 (Water)	GP-09 (Water)	GP-10 (Water)	GP-11 (Water)	GP-12 (Water)	GP-13 (Water)	GP-14 (Water)	GP-15 (Water)	GP-17 (Water)	GP-18 (Water)	TRG[1]
Dioxenethion	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	NA
Dioxathion (cis)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	NA
Dioxathion (trans)	<0.4	1.92	<0.4	<0.4	0.604	1.52	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	NA
Total Dioxathion (cis and trans)	<0.8	1.92	<0.8	<0.8	0.604	1.52	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	54.8

Notes:

PQLs are the lowest point on the calibration curve.

< indicates analyte not detected at or above listed method detection limit (MDL).

NA - Not applicable.

[1] Target Remediation Goals (TRG) are taken from the Tier 1 Goals Table of the Final Regulations Governing Brownfields Voluntary Cleanup and Redevelopment in Mississippi, MDEQ, March 2001. Bold text indicates concentration above applicable TRGs.

TABLE 4
SUMMARY OF SOIL VOC ANALYTICAL DATA
Samples Collected August 11 - 14, 2003
HERCULES, INC.
Hattiesburg, Mississippi

Analytes	Concentrations in micrograms per kilogram (µg/Kg)		
	GP-4	TRG[1]	
	(Soil)	Restricted	Unrestricted
1,1-Dichloroethene	<5.25	118	77.2
Benzene	62	1360	887
Trichloroethene	<5	7920	5170
Toluene	43.4	38000	38000
Chlorobenzene	<5	1190	1190
Bromodichloromethane	<5	1890	1240
n-Butylbenzene	<5	81800000	3130000
sec-Butylbenzene	<5	81800000	3130000
tert-Butylbenzene	<5	81800000	3130000
Carbon Tetrachloride	<5	569	371
Chloroethane	<5.55	1970000	220000
Chloroform	<5	478	312
2-Chlorotoluene	9.5	NA	NA
4-Chlorotoluene	4.47 J	NA	NA
1,2-Dibromo-3-chloropropane	<5	99.9	99.9
1,2-Dichlorobenzene	4.09 J	279000	279000
1,3-Dichlorobenzene	<5	1840000	70400
1,4-Dichlorobenzene	4.56 J	238000	26600
1,1-Dichloroethane	<15.5	116000	116000
1,2-Dichloroethane	<5	621	406
cis-1,2-Dichlorothene	<5	1210000	782000
1,2-Dichloropropane	<5	445	445
Ethyl benzene	19	395000	395000
Hexachlorobutadiene	<5	135	88.2
Isopropylbenzene	1.04 J	9430	9430
p-Isopropyltoluene	<5	NA	NA
Naphthalene	<5.5	247000	194000
n-Propylbenzene	7.64	490000	490000
Styrene	23.5	384000	384000
Tetrachloroethene	26	18200	11900
1,2,3-Trichlorobenzene	<6.8	NA	NA
1,2,4-Trichlorobenzene	<6.25	824000	782000
1,1,2-Trichloroethane	<5	1670	1090
1,2,4-Trimethylbenzene	36	102000000	3910000
1,3,5-Trimethylbenzene	22.2	436000	436000
Vinyl chloride	<5	939	426
Xylenes (total)	304	318000	318000

Notes:

< indicates analyte not detected at or above listed method detection limit (MDL).

PQL is set as low point on the curve.

J result is estimated concentration above MDL but below PQL.

NA - Not applicable.

[1] Target Remediation Goals (TRG) are taken from the Tier 1 Goals Table of the Final Regulations Governing Brownfields Voluntary Cleanup and Redevelopment in Mississippi, MDEQ, March 2001.

Bold text indicates concentration above most conservative applicable TRGs.

TABLE 5
SUMMARY OF MONITORING WELL ANALYTICAL RESULTS
Samples Collected August 28, 2003
HERCULES, INC.
Hattiesburg, Mississippi

Analytes	Concentrations in micrograms per Liter (µg/L)				
	MW-01 (Water)	MW-04 (Water)	MW-10 (Water)	MW-11 (Water)	TRG[1]
Volatile Organic Compounds					
Bromoform	<1	<1	1.55	<1	8.48
tert-Butylbenzene	1.34	<1	<1	<1	243
1,2-Dichlorobenzene	2.7	<1	<1	<1	600
1,3-Dichlorobenzene	1.39	<1	<1	<1	5.48
1,4-Dichlorobenzene	2.2	<1	<1	<1	75
Hexachlorobutadiene	**5.05**	<1	<1	<1	0.859
p-Isopropyltoluene	1.34	<1	<1	<1	NA
1,2,3-Trichlorobenzene	1.40 J	<5	<5	<5	NA
1,2,4-Trimethylbenzene	1.23	<1	<1	<1	12.3
Dioxathion					
Dioxenethion	<0.4	6.34	<0.4	6.24	NA
Dioxathion (cis)	<0.4	1.82	<0.4	<0.4	NA
Dioxathion (trans)	<0.4	<0.4	<0.4	<0.4	NA
Total Dioxathion (cis and trans)	<0.8	1.82	<0.8	<0.8	54.8

Notes:

< indicates analyte not detected at or above listed method detection limit (MDL).

PQL is set as low point on the curve.

J result is estimated concentration above MDL but below PQL.

NA - Not applicable

[1] Target Remediation Goals (TRG) are taken from the Tier 1 Goals Table of the Final Regulations Governing Brownfields Volunary Cleanup and Redevelopment in Mississippi, MDEQ, March 2001. Bold text indicates concentrations above applicable TRGs.

TABLE 6
SUMMARY OF STREAM SEDIMENT AND SURFACE WATER ANALYTICAL DATA
Samples Collected September 3, 2003
HERCULES, INC.
Hattiesburg, Mississippi

Analytes	Concentration in micrograms per Liter (µg/L) or parts per billion.			
	CM-0 (Water)	CM-0 (Sediment)	CM-1 (Water)	CM-1 (Sediment)
Volatile Organic Compounds				
Toluene	<1	<5	4.66	7.28
Chlorobenzene	<1	<5	6.58	<5
Bromobenzene	4.18	4.79 J	13	7.67
2-Chlorotoluene	3.4	<5	2.53	<5
4-Chlorotoluene	4.61	<5	4.17	<5
1,2-Dichlorobenzene	3.44	<5	3.76	3.21 J
1,3-Dichlorobenzene	3.66	<5	3.42	<5
1,4-Dichlorobenzene	7.54	4.54 J	6.35	5.07
1,2-Dichloroethane	<1	<5	1.71	<5
Ethyl benzene	4.14	<5	1.55	<5
Naphthalene	<5	<5	14.7	<5
Styrene	3.16	<5	2.36	<5
1,2,3-Trichlorobenzene	<5	<5	6.64	<5
1,2,4-Trichlorobenzene	<5	<5	1.80 J	<5
1,2,4-Trimethylbenzene	<1	<5	1.3	<5
1,3,5-Trimethylbenzene	1.04	<5	1.57	<5
Xylenes (total)	8.31	<5	7.41	<5
Dioxathion				
Dioxenethion	<0.4	<0.4	<0.4	<0.4
Dioxathion (cis)	<0.4	<0.4	<0.4	<0.4
Dioxathion (trans)	<0.4	<0.4	<0.4	<0.4

Notes:

< indicates analyte not detected at or above listed method detection limit (MDL).

PQL is set as low point on the curve.

J result is estimated concentration above MDL but below PQL.

Water concentration in micrograms per Liter (µg/L).

Sediment concentration in micrograms per kilogram (µg/kg).

TAB

SUMMARY OF QUALITY ASSURANCE / QUALITY CONTROL

Samples Collected August 12 - 13, 2003
HERCULES, INC.
Hattiesburg, Mississippi

Analytes	Concentrations in micrograms per Liter (µg/L)									
	BD-1 (Water - Blind Duplicate)	GP-7 (Water)	BD-2 (Water - Blind Duplicate)	GP-10 (Water)	BD-3 (Water - Blind Duplicate)	MW-1 (Water)	RS-1 (Rinsate)	GP-8 (Water)	GP-8 Dup (Water)	TRG[1]
Benzene	**26.13**	**89.6**	<1	<1	<1	<1	<1	<1	<1	5
Toluene	<1	8.35	<1	<1	<1	<1	<1	10.4	7.5	1000
tert-Butylbenzene	<1	<1	<1	<1	<1	1.34	<1	<1	<1	243
1,2-Dichlorobenzene	<1	<1	<1	<1	<1	2.7	<1	<1	<1	600
1,3-Dichlorobenzene	<1	<1	<1	<1	<1	1.39	<1	<1	<1	5.48
1,4-Dichlorobenzene	<1	<1	<1	<1	<1	2.2	<1	<1	<1	75
Hexachlorobutadiene	<1	<1	<1	<1	<1	**5.05**	<1	<1	<1	0.859
p-Isopropyltoluene	<1	<1	<1	<1	<1	1.34	<1	11.1	11.5	NA
Naphthalene	<5	<5	<5	<5	<5	<5	<5	**52.4**	**55.7**	6.2
1,2,3-Trichlorobenzene	<5	<5	<5	<5	<5	1.4J	<5	<5	<5	NA
1,2,4-Trimethylbenzene	<5	<5	<5	<5	<5	1.23	<5	<5	<5	12.3

Analytes	Concentrations in micrograms per Liter (µg/L)									
	BD-02 (Water - Blind Duplicate)	GP-10 (Water)	BD-3 (Water - Blind Dupicate)	MW-1 (Water)	RS-01 (Rinsate)	GP-08 (Water)	GP-08 Dup (Water)	GP-08 Matrix Spike (Water)	GP-08 Matrix Spike Dup (Water)	TRG[1]
Dioxenethion	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	4.56	4.85	NA
Dioxathion (cis)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	5.3	4.43	NA
Dioxathion (trans)	<0.4	<0.4	<0.4	<0.4	<0.4	1.52	<0.4	4.81	4.77	NA
Total Dioxathion (cis and trans)	<0.8	<0.8	<0.8	<0.8	<0.8	1.52	<0.8	NA	NA	54.8

Notes:

< indicates analyte not detected at or above listed method detection limit (MDL).

PQL is set as low point on the curve.

NA - Not applicable.

[1] Target Remediation Goals (TRG) are taken from the Tier 1 Goals Table of the Final Regulations Governing Brownfields Voluntary Cleanup and Redevelopment in Mississippi, MDEQ, March 2001. Bold text indicates concentration above applicable TRGs.

FIGURES

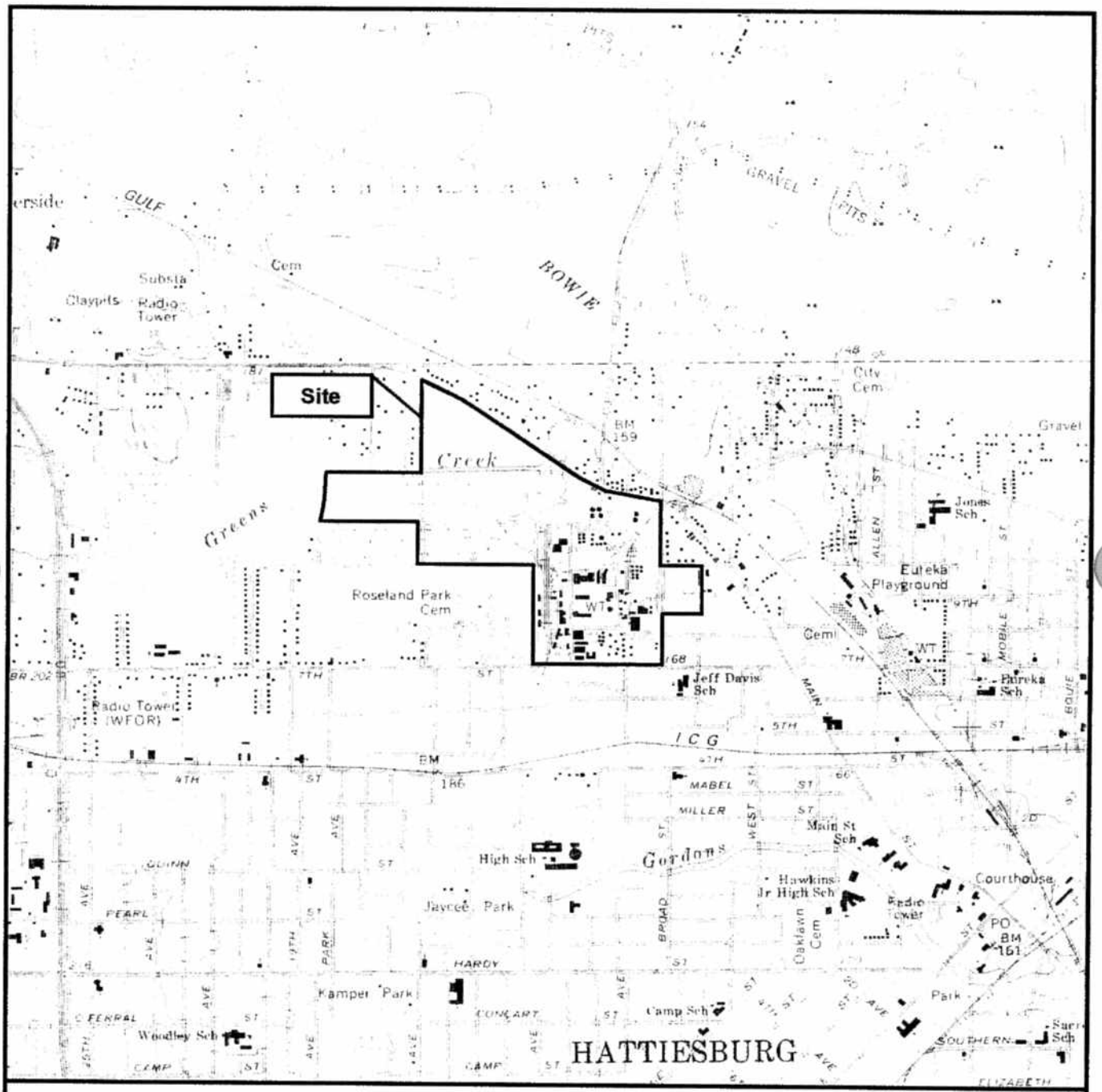
FIGURES

ESI

FIGURE 1

SITE LOCATION MAP

SITE LOCATION MAP
HERCULES, INC.
HATTIESBURG, MS



Source: *Hattiesburg, Miss* U.S.G.S. 7.5' Topographic Map

HER22173

HERCULES

ESI

FIGURE 2

SITE PLAN SHOWING DATA POINT LOCATIONS

Full Size Engineering Drawing(s)
Available at
EPA Region 4 Offices
in Atlanta, Ga.

ESI

FIGURE 3

REGIONAL AND SITE CROSS SECTIONS

Full Size Engineering Drawing(s)
Available at
EPA Region 4 Offices
in Atlanta, Ga.

ESI

FIGURE 4

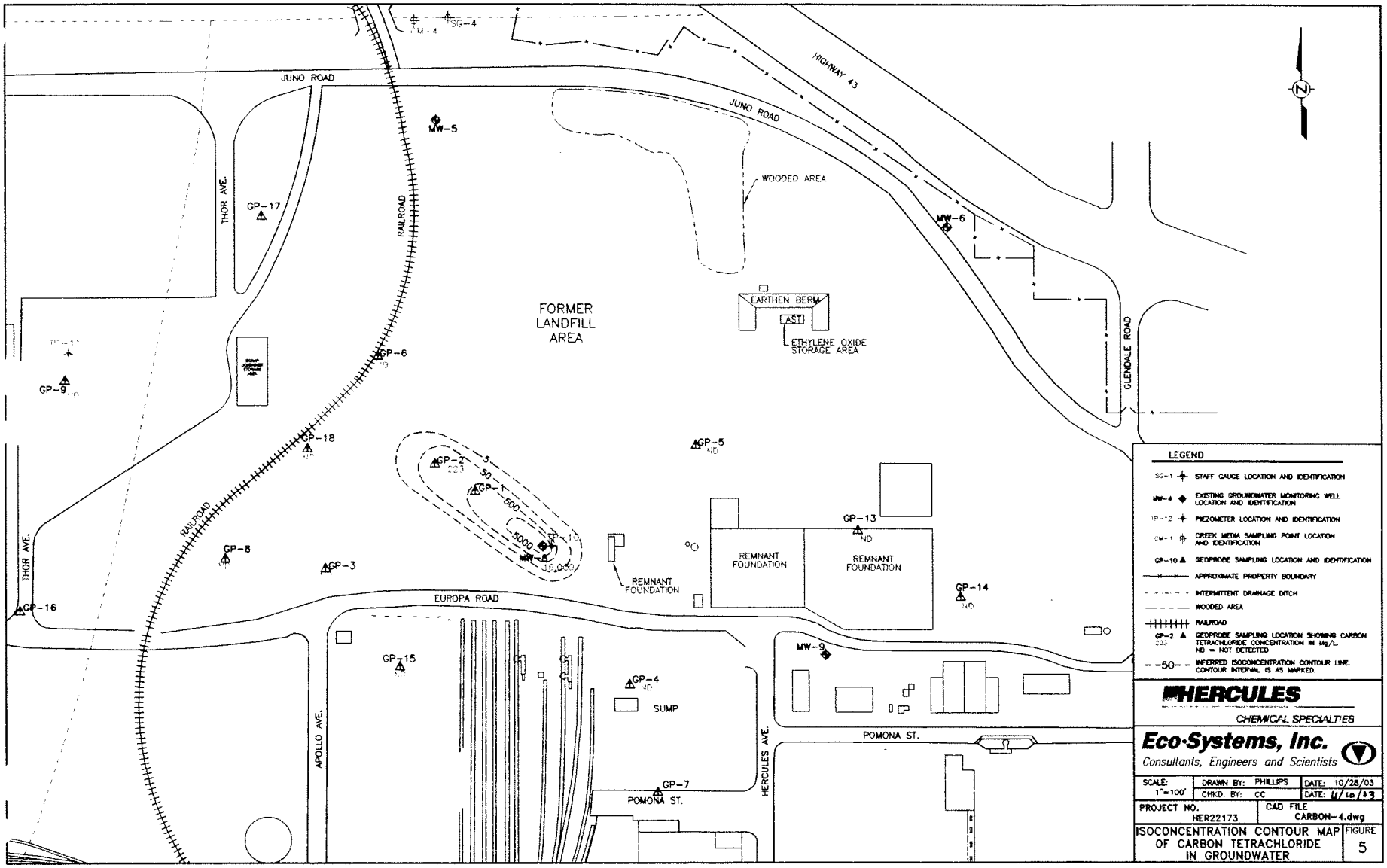
POTENTIOMETRIC SURFACE MAP – OCTOBER 31, 2003

Full Size Engineering Drawing(s)
Available at
EPA Region 4 Offices
in Atlanta, Ga.

ESI

FIGURE 5

ISOCONCENTRATION MAP OF CARBON TETRACHLORIDE IN GROUNDWATER

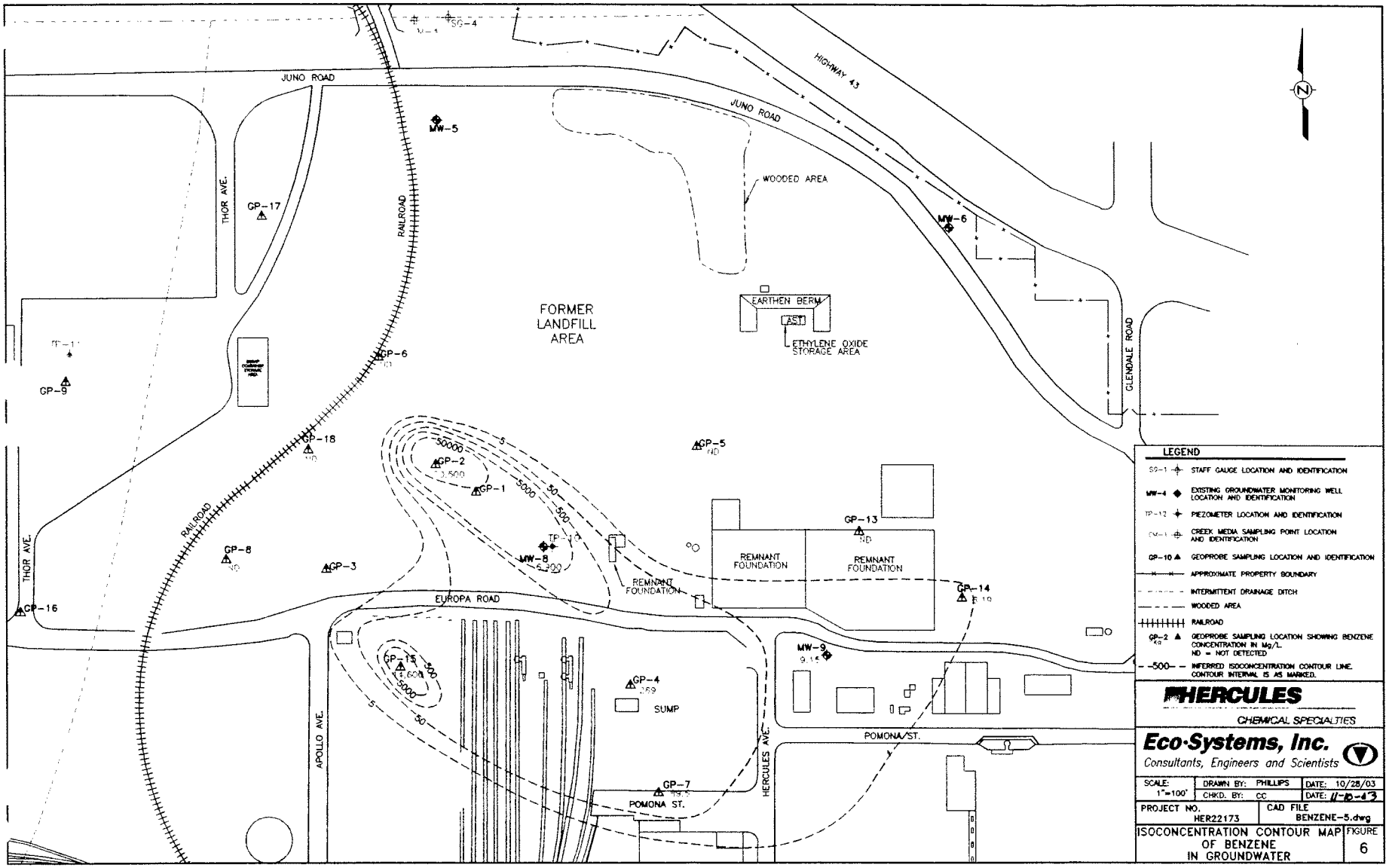


JUNO ROAD
HIGHWAY 43
JUNO ROAD
SG-4
MW-5
WOODED AREA
THOR AVE.
GP-17
RAILROAD
MW-6
FORMER LANDFILL AREA
EARTHEN BERM
AST
ETHYLENE OXIDE STORAGE AREA
GLENDALE ROAD
GP-9
GP-6
GP-18
GP-5
ND
GP-2
223
5
50
GP-1
500
5000
MW-8
16,000
GP-13
ND
REMNANT FOUNDATION
REMNANT FOUNDATION
REMNANT FOUNDATION
GP-8
GP-3
THOR AVE.
GP-16
EUROPA ROAD
GP-14
ND
GP-15
GP-4
ND
SUMP
MW-9
APOLLO AVE.
HERCULES AVE.
POMONA ST.
GP-7
POMONA ST.
LEGEND
SG-1 STAFF GAUGE LOCATION AND IDENTIFICATION
MW-4 EXISTING GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION
TP-12 PIEZOMETER LOCATION AND IDENTIFICATION
CM-1 CREEK MEDIA SAMPLING POINT LOCATION AND IDENTIFICATION
GP-10 GEOPROBE SAMPLING LOCATION AND IDENTIFICATION
APPROXIMATE PROPERTY BOUNDARY
INTERMITTENT DRAINAGE DITCH
WOODED AREA
RAILROAD
GP-2 223 GEOPROBE SAMPLING LOCATION SHOWING CARBON TETRACHLORIDE CONCENTRATION IN Mg/L. ND = NOT DETECTED
--50-- INFERRED ISOCONCENTRATION CONTOUR LINE. CONTOUR INTERVAL IS AS MARKED.
HERCULES
CHEMICAL SPECIALTIES
Eco-Systems, Inc.
Consultants, Engineers and Scientists
SCALE: 1"=100'
DRAWN BY: PHILLIPS
CHKD. BY: CC
DATE: 10/28/03
DATE: 11/10/03
PROJECT NO. HER22173
CAD FILE CARBON-4.dwg
ISOCONCENTRATION CONTOUR MAP OF CARBON TETRACHLORIDE IN GROUNDWATER
FIGURE 5

ESI

FIGURE 6

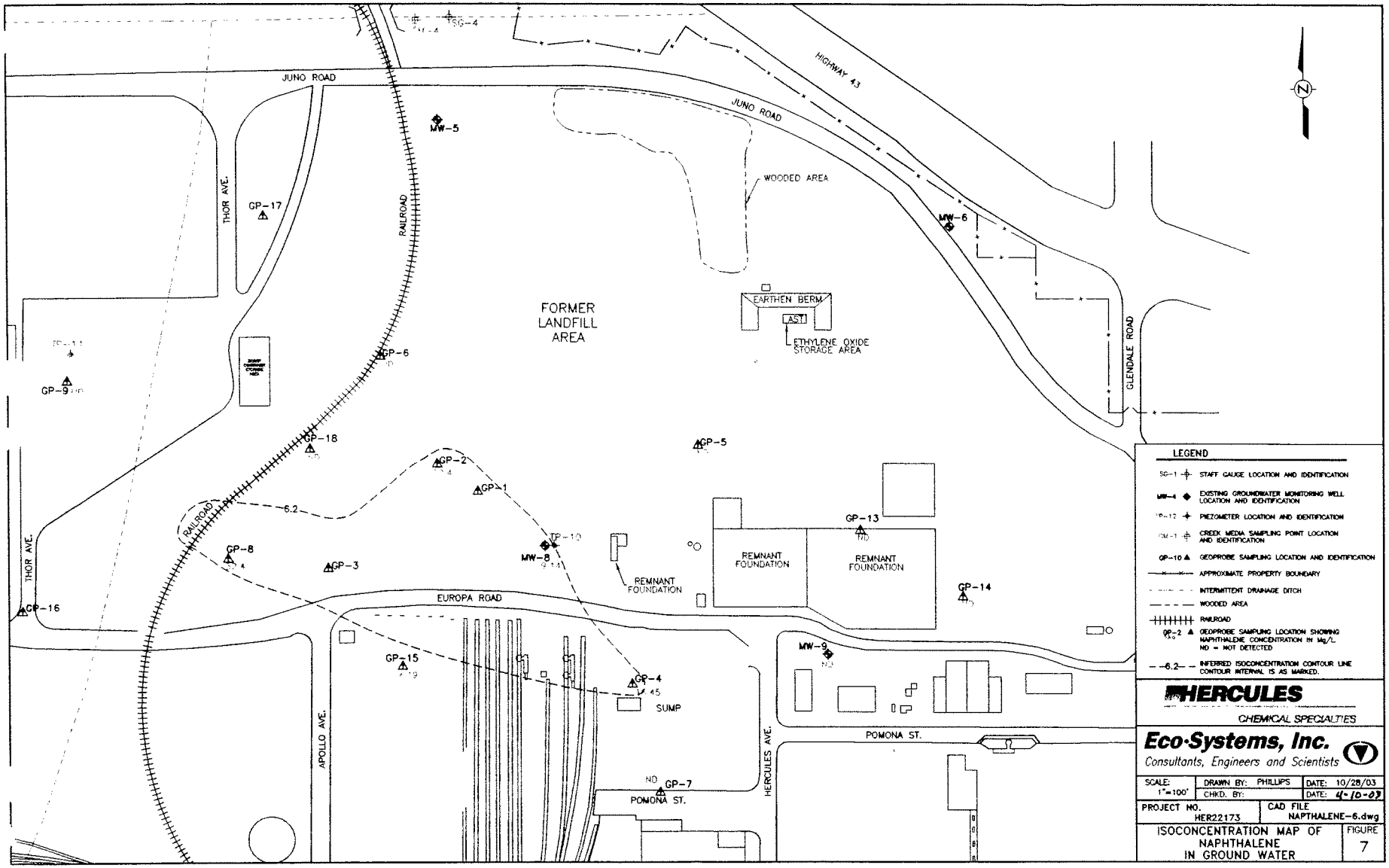
ISOCONCENTRATION MAP OF BENZENE IN GROUNDWATER


JUNO ROAD
HIGHWAY 43
JUNO ROAD
WOODED AREA
MW-5
MW-6
THOR AVE.
GP-17
RAILROAD
FORMER LANDFILL AREA
EARTHEN BERM
AST
ETHYLENE OXIDE STORAGE AREA
GLENDALE ROAD
GP-6
GP-9
GP-18
GP-5
GP-2
GP-1
GP-13
REMNANT FOUNDATION
REMNANT FOUNDATION
REMNANT FOUNDATION
GP-8
GP-3
MW-8
GP-14
THOR AVE.
GP-16
EUROPA ROAD
MW-9
GP-15
GP-4
SUMP
APOLLO AVE.
HERCULES AVE.
POMONA ST.
GP-7
POMONA ST.
LEGEND
STAFF GAUGE LOCATION AND IDENTIFICATION
EXISTING GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION
PIEZOMETER LOCATION AND IDENTIFICATION
CREEK MEDIA SAMPLING POINT LOCATION AND IDENTIFICATION
GP-10 GEOPROBE SAMPLING LOCATION AND IDENTIFICATION
APPROXIMATE PROPERTY BOUNDARY
INTERMITTENT DRAINAGE DITCH
WOODED AREA
RAILROAD
GEOPROBE SAMPLING LOCATION SHOWING BENZENE CONCENTRATION IN Mg/L.
ND = NOT DETECTED
INFERRED ISOCONCENTRATION CONTOUR LINE. CONTOUR INTERVAL IS AS MARKED.
HERCULES
CHEMICAL SPECIALTIES
Eco-Systems, Inc.
Consultants, Engineers and Scientists
SCALE: 1"=100'
DRAWN BY: PHILLIPS
DATE: 10/28/03
CHKD. BY: CC
DATE: 11-10-03
PROJECT NO. HER22173
CAD FILE BENZENE-5.dwg
ISOCONCENTRATION CONTOUR MAP OF BENZENE IN GROUNDWATER
FIGURE 6

ESI

FIGURE 7

ISOCONCENTRATION MAP OF NAPHTHALENE IN GROUNDWATER


JUNO ROAD
HIGHWAY 43
JUNO ROAD
WOODED AREA
MW-5
MW-6
THOR AVE.
GP-17
RAILROAD
FORMER LANDFILL AREA
EARTHEN BERM
AST
ETHYLENE OXIDE STORAGE AREA
GLENDALE ROAD
GP-6
GP-9
GP-18
GP-5
GP-2
GP-1
6.2
RAILROAD
GP-8
GP-3
MW-8
REMNANT FOUNDATION
REMNANT FOUNDATION
REMNANT FOUNDATION
GP-13
GP-14
THOR AVE.
GP-16
EUROPA ROAD
GP-15
GP-4
SUMP
MW-9
APOLLO AVE.
HERCULES AVE.
POMONA ST.
GP-7
POMONA ST.
LEGEND
SG-1 STAFF GAUGE LOCATION AND IDENTIFICATION
MW-4 EXISTING GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION
PZ-12 PIEZOMETER LOCATION AND IDENTIFICATION
CM-1 CREEK MEDIA SAMPLING POINT LOCATION AND IDENTIFICATION
GP-10 GEOPROBE SAMPLING LOCATION AND IDENTIFICATION
APPROXIMATE PROPERTY BOUNDARY
INTERMITTENT DRAINAGE DITCH
WOODED AREA
RAILROAD
GP-2 GEOPROBE SAMPLING LOCATION SHOWING NAPHTHALENE CONCENTRATION IN ug/L
ND = NOT DETECTED
6.2 INFERRED ISOCONCENTRATION CONTOUR LINE CONTOUR INTERVAL IS AS MARKED.
HERCULES
CHEMICAL SPECIALTIES
Eco-Systems, Inc.
Consultants, Engineers and Scientists
SCALE: 1"=100'
DRAWN BY: PHILLIPS
DATE: 10/28/03
CHKD. BY:
DATE: 4-10-03
PROJECT NO. HER22173
CAD FILE NAPTHALENE-6.dwg
ISOCONCENTRATION MAP OF NAPHTHALENE IN GROUND WATER
FIGURE 7

ESI

FIGURE 8

FORMER LANDFILL AREA QUADRATURE CONDUCTIVITY

Full Size Engineering Drawing(s)
Available at
EPA Region 4 Offices
in Atlanta, Ga.

ESI

FIGURE 9

FORMER LANDFILL AREA INPHASE CONDUCTIVITY

Full Size Engineering Drawing(s)
Available at
EPA Region 4 Offices
in Atlanta, Ga.

ESI

FIGURE 10

FORMER LANDFILL AREA TOTAL MAGNETIC INTENSITY

Full Size Engineering Drawing(s)
Available at
EPA Region 4 Offices
in Atlanta, Ga.

ESI

FIGURE 11

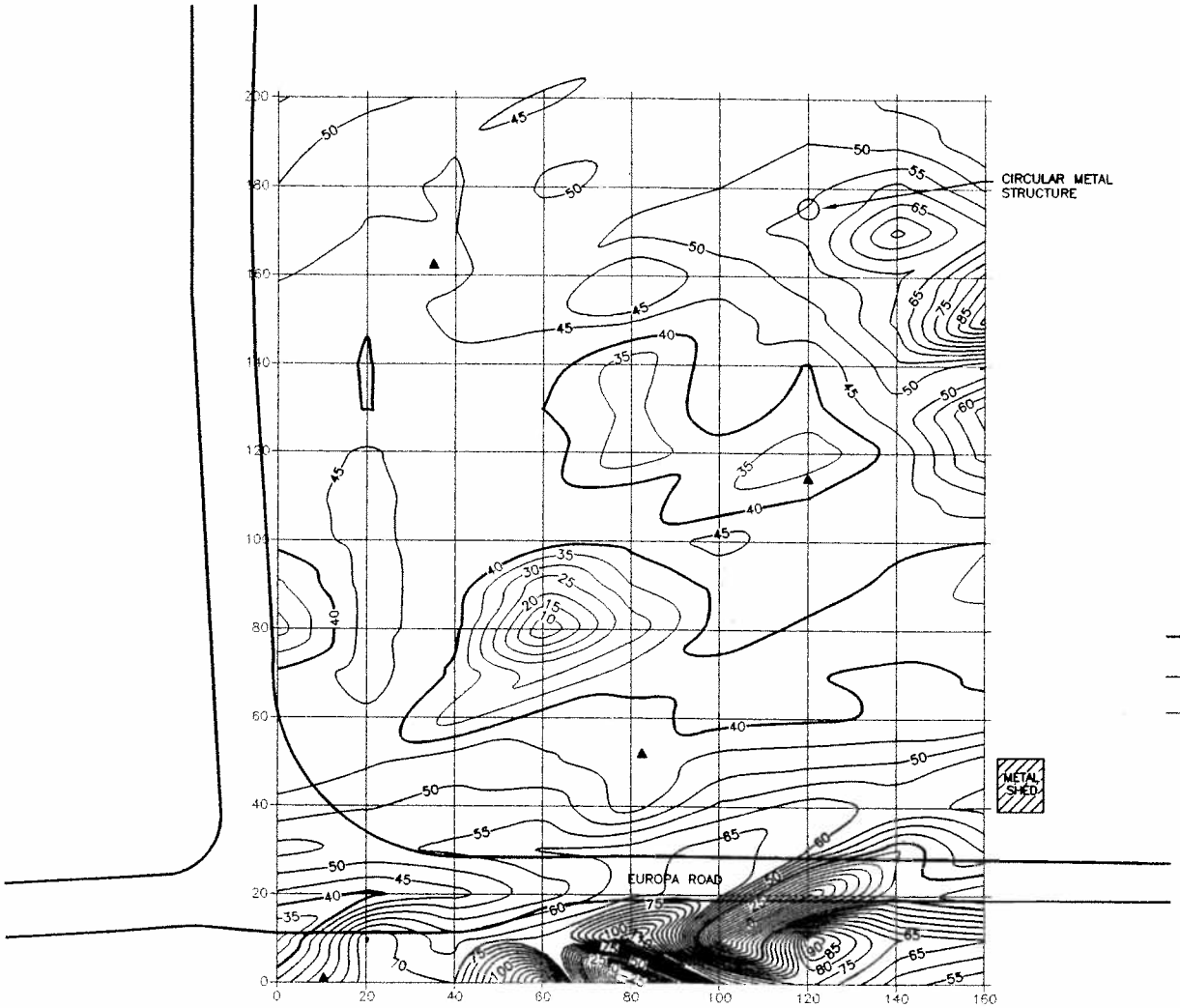
FORMER LANDFILL AREA SURFACE FEATURES AND LANDFILL LIMITS

Full Size Engineering Drawing(s)
Available at
EPA Region 4 Offices
in Atlanta, Ga.

ESI

FIGURE 12

SMALL GEOPHYSICS GRID QUADRATURE CONDUCTIVITY



CONTOUR INTERVAL = 5 MILLISIEMENS/METER (MS/M)

LEGEND

- ▲ SMALL SCRAP
- 40 — APPROXIMATE BACKGROUND QUADRATURE CONDUCTIVITY
- 60 — QUADRATURE CONDUCTIVITY GREATER THAN BACKGROUND
- 20 — QUADRATURE CONDUCTIVITY LESS THAN BACKGROUND

HERCULES
CHEMICAL SPECIALTIES

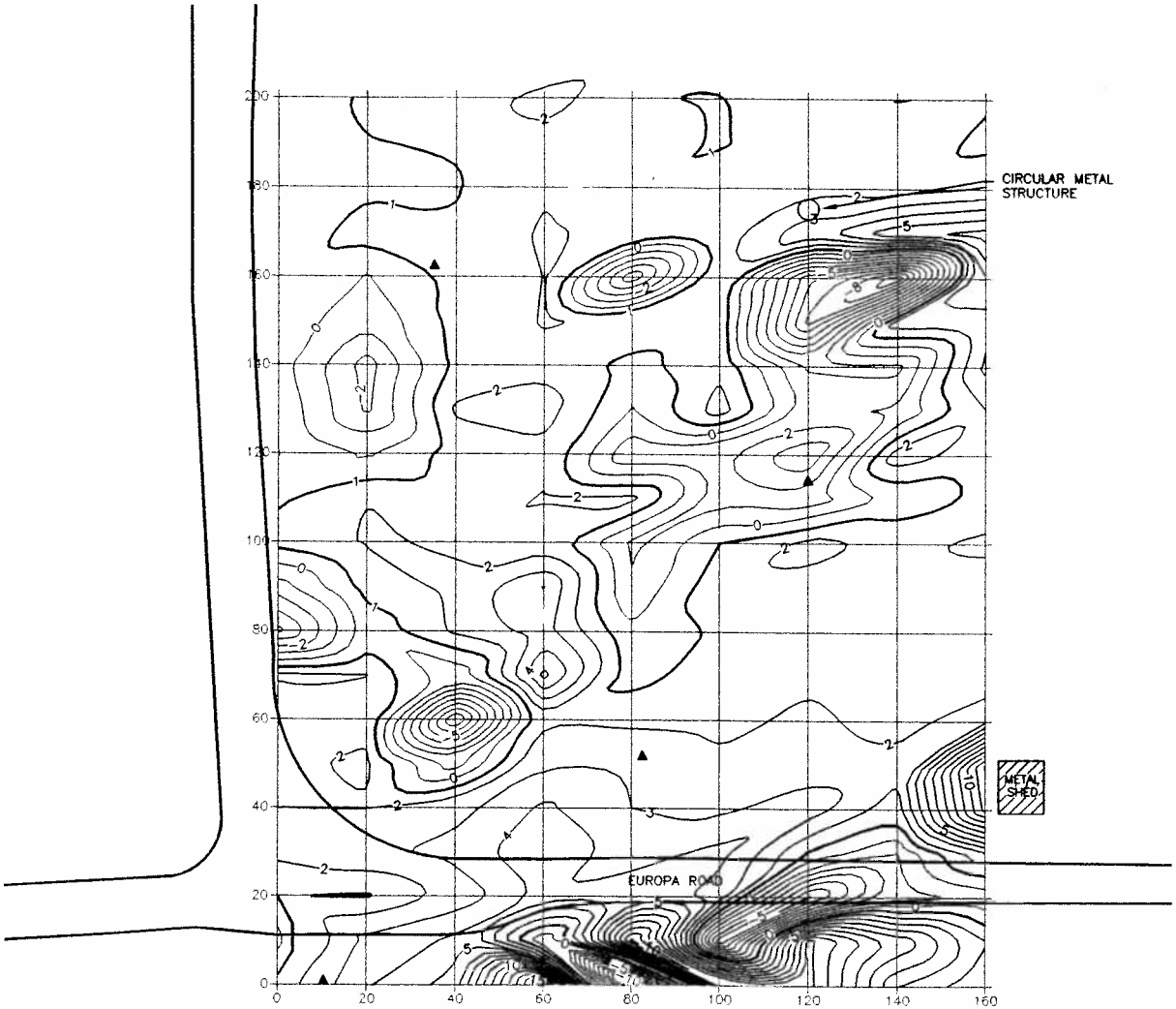
Eco-Systems, Inc.
Consultants, Engineers and Scientists

SCALE: 1"=25'	DRAWN BY: PHILLIPS	DATE: 10/21/03
	CHKD. BY: CM	DATE: 11-7-03
PROJECT NO. HER22173	CAD FILE QUADRATURE1.dwg	
SMALL GEOPHYSICS GRID QUADRATURE CONDUCTIVITY		FIGURE 12

ESI

FIGURE 13

SMALL GEOPHYSICS GRID INPHASE CONDUCTIVITY



CONTOUR INTERVAL = 1 PPT

LEGEND

- ▲ SMALL SCRAP
- 1 — APPROXIMATE BACKGROUND INPHASE CONDUCTIVITY
- 2 — INPHASE CONDUCTIVITY GREATER THAN BACKGROUND
- -3 — INPHASE CONDUCTIVITY LESS THAN BACKGROUND

HERCULES
CHEMICAL SPECIALTIES

Eco-Systems, Inc.
Consultants, Engineers and Scientists

SCALE: 1"=25'	DRAWN BY: PHILLIPS	DATE: 10/21/03
	CHKD. BY:	DATE:
PROJECT NO. HER22173	CAD FILE INPHASE1.dwg	

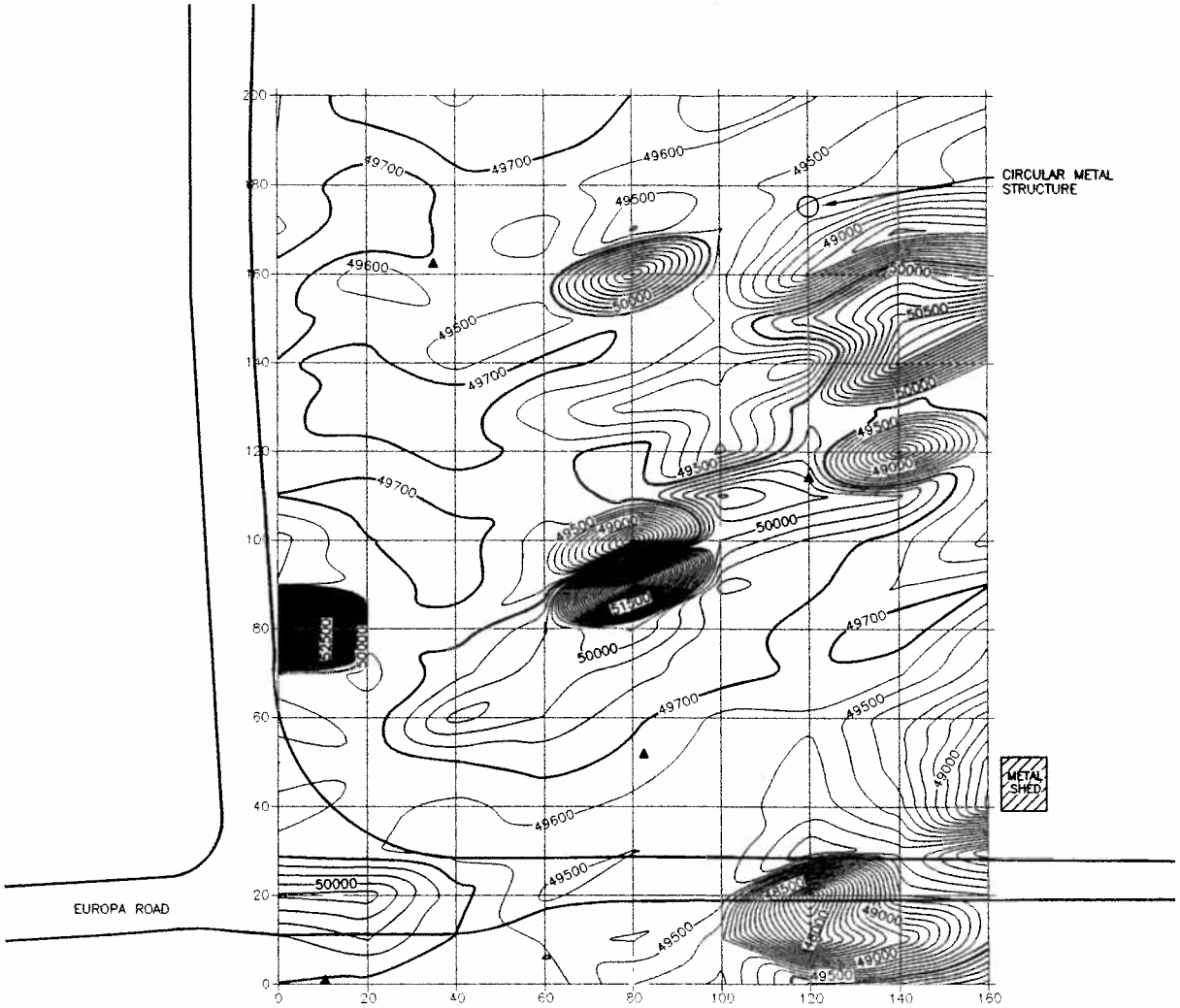
SMALL GEOPHYSICS GRID INPHASE CONDUCTIVITY

FIGURE 13

ESI

FIGURE 14

SMALL GEOPHYSICS GRID TOTAL MAGNETIC INTENSITY



CONTOUR INTERVAL = AS SHOWN

LEGEND

▲	SMALL SCRAP
49700	APPROXIMATE BACKGROUND TOTAL MAGNETIC INTENSITY
50000	TOTAL MAGNETIC INTENSITY GREATER THAN BACKGROUND
49500	TOTAL MAGNETIC INTENSITY LESS THAN BACKGROUND

HERCULES
CHEMICAL SPECIALTIES

Eco·Systems, Inc.
Consultants, Engineers and Scientists

SCALE: 1"=25'	DRAWN BY: PHILLIPS	DATE: 10/21/03
	CHKD. BY: GK	DATE: 11-7-03
PROJECT NO. HER22173	CAD FILE 5MGRD-MAG1.dwg	

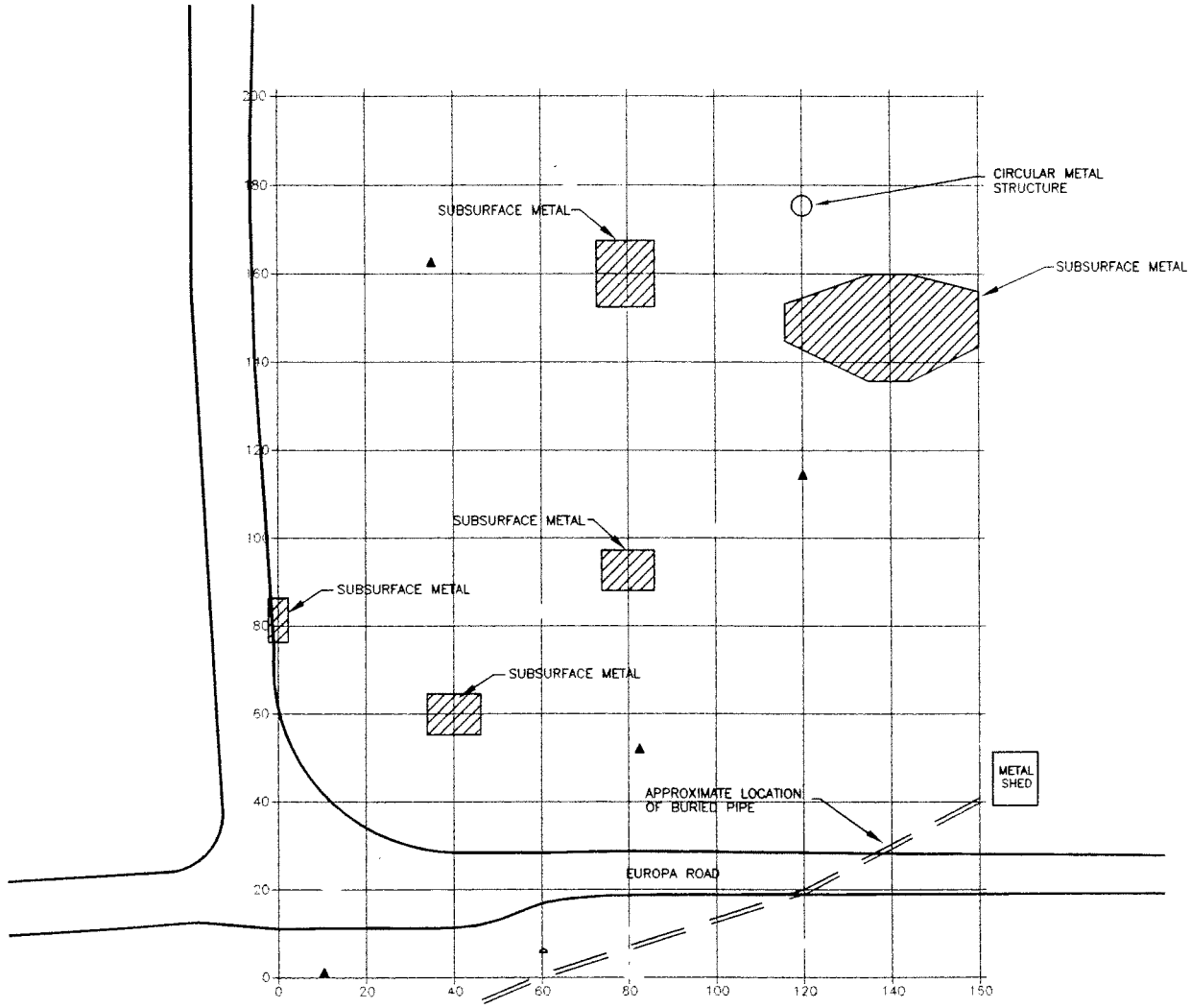
SMALL GEOPHYSICS GRID
TOTAL MAGNETIC INTENSITY

FIGURE 14

ESI

FIGURE 15

SMALL GEOPHYSICS GRID SURFACE FEATURES AND ACCUMULATIONS OF BURIED METAL



LEGEND

▲ SMALL SCRAP

HERCULES
CHEMICAL SPECIALTIES

Eco-Systems, Inc.
Consultants, Engineers and Scientists

SCALE: 1"=25'	DRAWN BY: PHILLIPS	DATE: 10/28/03
	CHKD. BY:	DATE: 11-7-03
PROJECT NO. HER22173	CAD FILE SURFACE-FEATURES.dwg	
SURFACE FEATURES AND ACCUMULATIONS OF BURIED METAL		FIGURE 15

ESI

APPENDICES

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
BASE NEUTRALS AND ACIDS - GC/MS ANALYSIS DATA

Client: **Hercules**
Location: **HER-GP11-GW**
File #: **BT88794**

	Date	Time	Analyst
Collection:	8/14/03	1145	Client
Extraction:	8/18/03	800	WTD
Analysis:	8/22/03	2130	WTD

Sample Type: Water
Extraction Method: 3510C
Analysis Method: 8270C

Compound Name	CAS Number	PQL* ug/L (ppb)	BT88794 Detected Amount ug/L (ppb)	BT88794 Spike Amount ug	BT88794 Spike % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Spike Amount ug	BLANK Spike % Recovery	Matrix Spike Detected Amount ng/ul in the extract	Matrix Spike Spike Amount ug	Matrix Spike Spike % Recovery	Matrix Spike Duplicate Detected Amount ng/ul in the extract	Matrix Spike Duplicate Spike Amount ug	Matrix Spike Duplicate Spike % Recovery
N-Nitrosodiphenylamine	86-30-6	10.0	ND			ND			ND			ND		
4-Bromophenyl-phenylether	101-55-3	10.0	ND			ND			ND			ND		
Hexachlorobenzene	118-74-1	10.0	ND			ND			ND			ND		
Pentachlorophenol	87-86-5	10.0	ND			ND			144.86	150.00	96.57	63.51	150.00	42.34
Phenanthrene	85-01-8	10.0	ND			ND			ND			ND		
Anthracene	120-12-7	10.0	ND			ND			ND			ND		
Di-n-butylphthalate	84-74-2	10.0	ND			ND			ND			ND		
Fluoranthene	206-44-0	10.0	ND			ND			ND			ND		
Pyrene	129-00-0	10.0	ND			ND			69.76	100.00	69.76	73.39	100.00	73.39
Butylbenzylphthalate	85-68-7	10.0	ND			ND			ND			ND		
Benzo(a)anthracene	56-55-3	10.0	ND			ND			ND			ND		
3,3'-Dichlorobenzidiene	91-94-1	10.0	ND			ND			ND			ND		
Chrysene	218-01-9	10.0	ND			ND			ND			ND		
Bis(2-ethylhexyl)phthalate	117-81-7	10.0	ND			ND			ND			ND		
Di-n-octylphthalate	117-84-0	10.0	ND			ND			ND			ND		
Benzo(b)fluoranthene	205-99-2	10.0	ND			ND			ND			ND		
Benzo(k)fluoranthene	207-08-9	10.0	ND			ND			ND			ND		
Benzo(a)pyrene	50-32-8	10.0	ND			ND			ND			ND		
Indeno(1,2,3-c,d)pyrene	193-39-5	10.0	ND			ND			ND			ND		
Dibenzo(a,h)anthracene	53-70-3	10.0	ND			ND			ND			ND		
Benzo(g,h,i)perylene	191-24-2	10.0	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
2-Fluorophenol			51.77	200.00	25.89	70.09	200.00	35.05	46.24	200.00	23.12	1.24	200.00	0.62 *
Phenol-d5			38.08	200.00	19.04	49.78	200.00	24.89	37.40	200.00	18.70	5.97	200.00	2.99 *
Nitrobenzene-d5			62.84	100.00	62.84	60.18	100.00	60.18	58.22	100.00	58.22	70.40	100.00	70.40
2-Fluorobiphenyl			70.19	100.00	70.19	50.59	100.00	50.59	60.87	100.00	60.87	68.93	100.00	68.93
2,4,6-Tribromophenol			124.25	200.00	62.13	131.52	200.00	65.76	127.57	200.00	63.79	3.22	200.00	1.61 *
Terphenyl-d14			67.26	100.00	67.26	75.96	100.00	75.96	75.12	100.00	75.12	79.84	100.00	79.84

*PQL is defined as the low point on the calibratrion curve.

Certified by: Micheal S. Bonner,Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP11-GW
File #: BT88748

	Date	Time	Analyst
Collected:	08/13/03	14:28	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.57	5.00	91.4	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

*PQL's are the lowest point on the calibration curve

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP12-GW**
File #: BT88796

	Date	Time	Analyst
Collected:	08/14/03	14:40	Client
Received:	08/14/03	16:00	JR
Analyzed:	08/23/03	:06	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007444

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702Z) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88703Z) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.7	250	119	59.3	250	119
Benzene	71-43-2	1.00	43.0			ND			56.1	250	112	53.3	250	107
Trichloroethene	79-01-6	1.00	ND			ND			59.2	250	118	56.6	250	113
Toluene	108-88-3	1.00	ND			ND			39.8	250	79.6	56.5	250	113
Chlorobenzene	108-90-7	1.00	ND			ND			40.5	250	80.9	44.7	250	89.3
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			5.64			5.35		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	ND			ND			78.6			77.3		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP12-GW**
File #: BT88796

	Date	Time	Analyst
Collected:	08/14/03	14:40	Client
Received:	08/14/03	16:00	JR
Analysis:	08/23/03	:06	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007444

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702Z) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE % Recovery	MATRIX SPIKE DUP (BT88703Z) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		44.3	250	88.6	46.1	250	92.2	52.2	250	104	53.0	250	106
Dibromofluoromethane	1868-53-7		47.1	250	94.1	46.7	250	93.3	54.0	250	108	57.9	250	116
Toluene-d8	2037-26-5		50.0	250	100	53.8	250	108	51.7	250	103	49.5	250	98.9
4-Bromofluorobenzene	460-00-4		55.0	250	110	54.9	250	110	50.3	250	101	48.6	250	97.2

PQL is set as low point on the curve

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
BASE NEUTRALS AND ACIDS - GC/MS ANALYSIS DATA

Client: Hercules
Location: HER-GP12-GW
File #: BT88796

	Date	Time	Analyst
Collected:	8/14/03	1440	Client
Extracted:	8/18/03	800	WTD
Analyzed:	8/22/03	2229	WTD

Sample Type: Water
Extraction Method: 3510C
Analysis Method: 8270C

Compound Name	CAS Number	PQL* ug/L (ppb)	BT88796			BLANK			Matrix Spike(BT88747)			Matrix Spike Duplicate		
			Detected Amount ug/L (ppb)	Spike Amount ug	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug	Spike % Recovery	Detected Amount ng/ul in the extract	Spike Amount ug	Spike % Recovery	Detected Amount ng/ul in the extract	Spike Amount ug	Spike % Recovery
Phenol	108-95-2	10.0	ND			ND			38.93	150.00	25.95	6.68	150.00	4.45
Bis(2-chloroethyl)ether	111-44-4	10.0	ND			ND			ND			ND		
2-Chlorophenol	95-57-8	10.0	ND			ND			82.81	150.00	55.21	82.81	150.00	55.21
1,3-Dichlorobenzene	541-73-1	10.0	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	10.0	ND			ND			37.60	100.00	37.60	46.80	100.00	46.80
Benzyl Alcohol	100-51-6	10.0	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	10.0	ND			ND			ND			ND		
2-Methylphenol	95-48-7	10.0	ND			ND			ND			ND		
Bis(2-chloroisopropyl)ether	108-60-1	10.0	ND			ND			ND			ND		
4-Methylphenol	106-44-5	10.0	ND			ND			ND			ND		
Hexachloroethane	67-72-1	10.0	ND			ND			ND			ND		
N-Nitroso-di-N-propylamine	621-64-7	10.0	ND			ND			61.42	100.00	61.42	73.39	100.00	73.39
Nitrobenzene	98-95-3	10.0	ND			ND			ND			ND		
Isophorone	78-59-1	10.0	ND			ND			ND			ND		
2,4-Dimethylphenol	105-67-9	10.0	ND			ND			ND			ND		
2-Nitrophenol	88-75-5	10.0	ND			ND			ND			ND		
Benzoic Acid	65-85-0	10.0	ND			ND			ND			ND		
Bis(2-chloroethoxy)methane	111-91-1	10.0	ND			ND			ND			ND		
2,4-Dichlorophenol	120-83-2	10.0	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	10.0	ND			ND			40.94	100.00	40.94	50.75	100.00	50.75
Naphthalene	91-20-3	10.0	ND			ND			ND			ND		
4-Chloroaniline	106-47-8	10.0	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	10.0	ND			ND			ND			ND		
4-Chloro-3-methylphenol	59-50-7	10.0	ND			ND			105.32	150.00	70.21	57.22	150.00	38.15
2-Methylnaphthalene	91-57-6	10.0	ND			ND			ND			ND		
Hexachlorocyclopentadiene	77-47-4	10.0	ND			ND			ND			ND		
2,4,6-Trichlorophenol	88-06-2	10.0	ND			ND			ND			ND		
2,4,5-Trichlorophenol	95-95-4	10.0	ND			ND			ND			ND		
2-Chloronaphthalene	91-58-7	10.0	ND			ND			ND			ND		
2-Nitroaniline	88-74-4	10.0	ND			ND			ND			ND		
Dimethylphthalate	131-11-3	10.0	ND			ND			ND			ND		
Acenaphthylene	208-96-8	10.0	ND			ND			ND			ND		
2,6-Dinitrotoluene	606-20-2	10.0	ND			ND			ND			ND		
3-Nitroaniline	99-09-2	10.0	ND			ND			ND			ND		
Acenaphthene	83-32-9	10.0	ND			ND			59.25	100.00	59.25	64.64	100.00	64.64
2,4-Dinitrophenol	51-28-5	10.0	ND			ND			ND			ND		
4-Nitrophenol	100-02-7	10.0	ND			ND			30.77	150.00	20.51	18.29	150.00	12.19
Dibenzofuran	132-64-9	10.0	ND			ND			ND			ND		
2,4-Dinitrotoluene	121-14-2	10.0	ND			ND			73.18	100.00	73.18	76.06	100.00	76.06
Diethylphthalate	84-66-2	10.0	ND			ND			ND			ND		
Fluorene	86-73-7	10.0	ND			ND			ND			ND		
4-Chlorophenyl-phenylether	7005-72-3	10.0	ND			ND			ND			ND		
4-Nitroaniline	100-01-6	10.0	ND			ND			ND			ND		
4,6-Dinitro-2-methylphenol	534-52-1	10.0	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
BASE NEUTRALS AND ACIDS - GC/MS ANALYSIS DATA

Client: Hercules
Location: HER-GP12-GW
File #: BT88796

	Date	Time	Analyst
Collection:	8/14/03	1440	Client
Extraction:	8/18/03	800	WTD
Analysis:	8/22/03	2229	WTD

Sample Type: Water
Extraction Method: 3510C
Analysis Method: 8270C

Compound Name	CAS Number	PQL* ug/L (ppb)	BT88796 Detected Amount ug/L (ppb)	BT88796 Spike Amount ug	BT88796 Spike % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Spike Amount ug	BLANK Spike % Recovery	Matrix Spike Detected Amount ng/ul in the extract	Matrix Spike Spike Amount ug	Matrix Spike Spike % Recovery	Matrix Spike Duplicate Detected Amount ng/ul in the extract	Matrix Spike Duplicate Spike Amount ug	Matrix Spike Duplicate Spike % Recovery
N-Nitrosodiphenylamine	86-30-6	10.0	ND			ND			ND			ND		
4-Bromophenyl-phenylether	101-55-3	10.0	ND			ND			ND			ND		
Hexachlorobenzene	118-74-1	10.0	ND			ND			ND			ND		
Pentachlorophenol	87-86-5	10.0	ND			ND			144.86	150.00	96.57	63.51	150.00	42.34
Phenanthrene	85-01-8	10.0	ND			ND			ND			ND		
Anthracene	120-12-7	10.0	ND			ND			ND			ND		
Di-n-butylphthalate	84-74-2	10.0	ND			ND			ND			ND		
Fluoranthene	206-44-0	10.0	ND			ND			ND			ND		
Pyrene	129-00-0	10.0	ND			ND			69.76	100.00	69.76	73.39	100.00	73.39
Butylbenzylphthalate	85-68-7	10.0	ND			ND			ND			ND		
Benzo(a)anthracene	56-55-3	10.0	ND			ND			ND			ND		
3,3'-Dichlorobenzidiene	91-94-1	10.0	ND			ND			ND			ND		
Chrysene	218-01-9	10.0	ND			ND			ND			ND		
Bis(2-ethylhexyl)phthalate	117-81-7	10.0	ND			ND			ND			ND		
Di-n-octylphthalate	117-84-0	10.0	ND			ND			ND			ND		
Benzo(b)fluoranthene	205-99-2	10.0	ND			ND			ND			ND		
Benzo(k)fluoranthene	207-08-9	10.0	ND			ND			ND			ND		
Benzo(a)pyrene	50-32-8	10.0	ND			ND			ND			ND		
Indeno(1,2,3-c,d)pyrene	193-39-5	10.0	ND			ND			ND			ND		
Dibenzo(a,h)anthracene	53-70-3	10.0	ND			ND			ND			ND		
Benzo(g,h,i)perylene	191-24-2	10.0	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
2-Fluorophenol			44.38	200.00	22.19	70.09	200.00	35.05	46.24	200.00	23.12	1.24	200.00	0.62 *
Phenol-d5			39.18	200.00	19.59	49.78	200.00	24.89	37.40	200.00	18.70	5.97	200.00	2.99 *
Nitrobenzene-d5			61.82	100.00	61.82	60.18	100.00	60.18	58.22	100.00	58.22	70.40	100.00	70.40
2-Fluorobiphenyl			65.77	100.00	65.77	50.59	100.00	50.59	60.87	100.00	60.87	68.93	100.00	68.93
2,4,6-Tribromophenol			104.12	200.00	52.06	131.52	200.00	65.76	127.57	200.00	63.79	3.22	200.00	1.61 *
Terphenyl-d14			71.04	100.00	71.04	75.96	100.00	75.96	75.12	100.00	75.12	79.84	100.00	79.84

*PQL is defined as the low point on the calibratrion curve.

Certified by: Micheal S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: **Hercules/Eco-Systems**
Sample ID: HER-GP12-GW
File #: BT88796

Collected: 08/14/03 14:40 Client
Extracted: 08/15/03 9:45 SCF
Analyzed: 09/12/03 SCF
Date Analyst

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Spike Amount ug/L	SAMPLE Spike % Recovery	METHOD BLANK Detected Amount ug/L (ppb)	METHOD BLANK Spike Amount ug/L	METHOD BLANK Spike % Recovery	MATRIX SPIKE Detected Amount ug/mL (ppm)	MATRIX SPIKE Spike Amount ug/mL	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUPLICATE Detected Amount ug/mL (ppm)	MATRIX SPIKE DUPLICATE Spike Amount ug/mL	MATRIX SPIKE DUPLICATE Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.08	5.00	81.6	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

*PQL's are the lowest point on the calibration curve

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP13-GW**
File #: BT88741

	Date	Time	Analyst
Collected:	08/13/03	10:00	Client
Received:	08/13/03	12:00	JR
Analyzed:	08/13/03	21:05	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007443

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88703) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.8	250	120	58.7	250	117
Benzene	71-43-2	1.00	ND			ND			58.3	250	117	58.2	250	116
Trichloroethene	79-01-6	1.00	ND			ND			59.9	250	120	56.8	250	114
Toluene	108-88-3	1.00	ND			ND			59.2	250	118	58.4	250	117
Chlorobenzene	108-90-7	1.00	ND			ND			53.8	250	108	55.8	250	112
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			12.4			12.0		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	ND			ND			72.1			71.2		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP13-GW**
File #: BT88741

	Date	Time	Analyst
Collected:	08/13/03	10:00	Client
Received:	08/13/03	12:00	JR
Analysis:	08/13/03	21:05	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007443

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		44.6	250	89	49.3	250	98.7	48.0	250	95.9	46.0	250	92.1
Dibromofluoromethane	1868-53-7		44.2	250	88.5	43.1	250	86.2	44.5	250	89.0	44.0	250	88.0
Toluene-d8	2037-26-5		54.8	250	110	55.0	250	110	54.7	250	109	54.2	250	108
4-Bromofluorobenzene	460-00-4		53.6	250	107	51.3	250	103	52.3	250	105	50.9	250	102

PQL is set as low point on the curve

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: **Hercules/Eco-Systems**
Sample ID: HER-GP13-GW
File #: BT88741

	Date		Analyst
Collected:	08/13/03	10:00	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		3.55	5.00	71.0	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

*PQL's are the lowest point on the calibration curve

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP14-GW**
File #: BT88739

	Date	Time	Analyst
Collected:	08/13/03	9:32	Client
Received:	08/13/03	12:00	JR
Analyzed:	08/13/03	18:56	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007443

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88703) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.8	250	120	58.7	250	117
Benzene	71-43-2	1.00	6.19			ND			58.3	250	117	58.2	250	116
Trichloroethene	79-01-6	1.00	ND			ND			59.9	250	120	56.8	250	114
Toluene	108-88-3	1.00	ND			ND			59.2	250	118	58.4	250	117
Chlorobenzene	108-90-7	1.00	ND			ND			53.8	250	108	55.8	250	112
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			12.4			12.0		
Naphthalene	91-20-3	5.00	ND			ND			ND			ND		
n-Propylbenzene	103-65-1	1.00	ND			ND			72.1			71.2		
									ND			ND		

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP14-GW**
File #: BT88739

	Date	Time	Analyst
Collected:	08/13/03	9:32	Client
Received:	08/13/03	12:00	JR
Analysis:	08/13/03	18:56	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007443

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		46.3	250	92.7	49.3	250	98.7	48.0	250	95.9	46.0	250	92.1
Dibromofluoromethane	1868-53-7		44.1	250	88.3	43.1	250	86.2	44.5	250	89.0	44.0	250	88.0
Toluene-d8	2037-26-5		54.9	250	110	55.0	250	110	54.7	250	109	54.2	250	108
4-Bromofluorobenzene	460-00-4		51.6	250	103	51.3	250	103	52.3	250	105	50.9	250	102

PQL is set as low point on the curve

Certified by: Michael S. Bonner,Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP14-GW
File #: BT88739

	Date		Analyst
Collected:	08/13/03	9:32	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike		Detected Amount ug/L (ppb)	Spike		Detected Amount ug/mL (ppm)	Spike		Detected Amount ug/mL (ppm)	Spike	
			Amount ug/L	% Recovery		Amount ug/L	% Recovery		Amount ug/mL	% Recovery		Amount ug/mL	% Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		3.98	5.00	79.6	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

*PQL's are the lowest point on the calibration curve

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP15-GW**
File #: BT88742

	Date	Time	Analyst
Collected:	08/12/03	18:00	Client
Received:	08/13/03	12:00	LR
Analyzed:	08/24/03	16:35	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007443

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702Z) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88703Z) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.7	250	119	59.3	250	119
Benzene	71-43-2	1.00	14600			ND			56.1	250	112	53.3	250	107
Trichloroethene	79-01-6	1.00	ND			ND			59.2	250	118	56.6	250	113
Toluene	108-88-3	1.00	3.67			ND			39.8	250	79.6	56.5	250	113
Chlorobenzene	108-90-7	1.00	3.17			ND			40.5	250	80.9	44.7	250	89.3
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	1.66			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	3.46			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	4.19			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	3.25			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	3.03			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	2.99			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	2.56			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	1.54			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	2.19			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	2.27			ND			5.64			5.35		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	4.91 J			ND			78.6			77.3		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP15-GW**
File #: BT88742

	Date	Time	Analyst
Collected:	08/12/03	18:00	Client
Received:	08/13/03	12:00	LR
Analysis:	08/24/03	16:35	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007443

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	3.47			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	3.16 J			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	7.82			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		53.5	250	107	54.0	250	108	52.2	250	104	53.0	250	106
Dibromofluoromethane	1868-53-7		53.2	250	106	50.9	250	102	54.0	250	108	57.9	250	116
Toluene-d8	2037-26-5		50.5	250	101	50.9	250	102	51.7	250	103	49.5	250	98.9
4-Bromofluorobenzene	460-00-4		55.5	250	111	55.8	250	112	50.3	250	101	48.6	250	97.2

PQL is set as low point on the curve
J result is above MDL but below PQL

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP15-GW
File #: BT88742

	Date		Analyst
Collected:	08/13/03	18:00	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.02	5.00	80.4	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

*PQL's are the lowest point on the calibration curve

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP17-GW
File #: BT88744

Collected: 08/13/03 11:00 Client
Extracted: 08/15/03 9:45 SCF
Analyzed: 09/12/03 SCF
Date Analyst

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike		Detected Amount ug/L (ppb)	Spike		Detected Amount ug/mL (ppm)	Spike		Detected Amount ug/mL (ppm)	Spike	
			Amount ug/L	% Recovery		Amount ug/L	% Recovery		Amount ug/mL	% Recovery		Amount ug/mL	% Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.44	5.00	88.8	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

*PQL's are the lowest point on the calibration curve

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP18-GW**
File #: BT88795

	Date	Time	Analyst
Collected:	08/14/03	13:15	Client
Received:	08/14/03	16:00	JR
Analyzed:	08/22/03	23:15	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007444

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702Z) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88703Z) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.7	250	119	59.3	250	119
Benzene	71-43-2	1.00	ND			ND			56.1	250	112	53.3	250	107
Trichloroethene	79-01-6	1.00	ND			ND			59.2	250	118	56.6	250	113
Toluene	108-88-3	1.00	ND			ND			39.8	250	79.6	56.5	250	113
Chlorobenzene	108-90-7	1.00	ND			ND			40.5	250	80.9	44.7	250	89.3
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			5.64			5.35		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	ND			ND			78.6			77.3		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP18-GW**
File #: BT88795

	Date	Time	Analyst
Collected:	08/14/03	13:15	Client
Received:	08/14/03	16:00	JR
Analysis:	08/22/03	23:15	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007444

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702Z) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88703Z) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		45.2	250	90.4	46.1	250	92.2	52.2	250	104	53.0	250	106
Dibromofluoromethane	1868-53-7		47.2	250	94.5	46.7	250	93.3	54.0	250	108	57.9	250	116
Toluene-d8	2037-26-5		54.8	250	110	53.8	250	108	51.7	250	103	49.5	250	98.9
4-Bromofluorobenzene	460-00-4		55.8	250	112	54.9	250	110	50.3	250	101	48.6	250	97.2

PQL is set as low point on the curve

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Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP18-GW
File #: BT88795

	Date		Analyst
Collected:	08/14/03	13:15	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Spike Amount ug/L	SAMPLE Spike % Recovery	METHOD BLANK Detected Amount ug/L (ppb)	METHOD BLANK Spike Amount ug/L	METHOD BLANK Spike % Recovery	MATRIX SPIKE Detected Amount ug/mL (ppm)	MATRIX SPIKE Spike Amount ug/mL	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUPLICATE Detected Amount ug/mL (ppm)	MATRIX SPIKE DUPLICATE Spike Amount ug/mL	MATRIX SPIKE DUPLICATE Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.29	5.00	85.8	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

*PQL's are the lowest point on the calibration curve

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QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **BD01**
File #: BT88743

	Date	Time	Analyst
Collected:	NA	NA	Client
Received:	08/13/03	12:00	JE
Analyzed:	08/23/03	0:56	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007443

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702Z) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88703Z) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.7	250	119	59.3	250	119
Benzene	71-43-2	1.00	26.13			ND			56.1	250	112	53.3	250	107
Trichloroethene	79-01-6	1.00	ND			ND			59.2	250	118	56.6	250	113
Toluene	108-88-3	1.00	ND			ND			39.8	250	79.6	56.5	250	113
Chlorobenzene	108-90-7	1.00	ND			ND			40.5	250	80.9	44.7	250	89.3
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			5.64			5.35		
Naphthalene	91-20-3	5.00	ND			ND			ND			ND		
n-Propylbenzene	103-65-1	1.00	ND			ND			78.6			77.3		
						ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **BD01**
File #: BT88743

	Date	Time	Analyst
Collected:	NA	NA	Client
Received:	08/13/03	12:00	JE
Analysis:	08/23/03	0:56	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007443

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		46.5	250	92.9	54.0	250	108	52.2	250	104	53.0	250	106
Dibromofluoromethane	1868-53-7		47.5	250	94.9	50.9	250	102	54.0	250	108	57.9	250	116
Toluene-d8	2037-26-5		53.8	250	108	50.9	250	102	51.7	250	103	49.5	250	98.9
4-Bromofluorobenzene	460-00-4		55.0	250	110	55.8	250	112	50.3	250	101	48.6	250	97.2

PQL is set as low point on the curve

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Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **BD02**
File #: BT88747

	Date	Time	Analyst
Collected:	NA	NA	Client
Received:	08/13/03	16:35	JR
Analyzed:	08/24/03	15:44	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007444

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT887022) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88703Z) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.7	250	119	59.3	250	119
Benzene	71-43-2	1.00	ND			ND			56.1	250	112	53.3	250	107
Trichloroethene	79-01-6	1.00	ND			ND			59.2	250	118	56.6	250	113
Toluene	108-88-3	1.00	ND			ND			39.8	250	79.6	56.5	250	113
Chlorobenzene	108-90-7	1.00	ND			ND			40.5	250	80.9	44.7	250	89.3
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			5.64			5.35		
Naphthalene	91-20-3	5.00	ND			ND			ND			ND		
n-Propylbenzene	103-65-1	1.00	ND			ND			78.6			77.3		
						ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **BD02**
File #: BT88747

	Date	Time	Analyst
Collected:	NA	NA	Client
Received:	08/13/03	16:35	JR
Analysis:	08/24/03	15:44	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007444

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		47.6	250	95.3	54.0	250	108	52.2	250	104	53.0	250	106
Dibromofluoromethane	1868-53-7		46.3	250	92.6	50.9	250	102	54.0	250	108	57.9	250	116
Toluene-d8	2037-26-5		53.5	250	107	50.9	250	102	51.7	250	103	49.5	250	98.9
4-Bromofluorobenzene	460-00-4		54.3	250	109	55.8	250	112	50.3	250	101	48.6	250	97.2

PQL is set as low point on the curve

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
BASE NEUTRALS AND ACIDS - GC/MS ANALYSIS DATA

Client: Hercules
Location: HER-BD02
File #: BT88747

	Date	Time	Analyst
Collected:	8/13/03	1428	Client
Extracted:	8/18/03	800	WTD
Analyzed:	8/21/03	658	WTD

Sample Type: Water
Extraction Method: 3510C
Analysis Method: 8270C

Compound Name	CAS Number	PQL* ug/L (ppb)	BT88747 Detected Amount ug/L (ppb)	BT88747 Spike Amount ug	BT88747 Spike % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Spike Amount ug	BLANK Spike % Recovery	Matrix Spike(BT88747) Detected Amount ng/ul in the extract	Matrix Spike Spike Amount ug	Matrix Spike Spike % Recovery	Matrix Spike Duplicate Detected Amount ng/ul in the extract	Matrix Spike Duplicate Spike Amount ug	Matrix Spike Duplicate Spike % Recovery
Phenol	108-95-2	10.0	ND			ND			38.93	150.00	25.95	6.68	150.00	4.45
Bis(2-chloroethyl)ether	111-44-4	10.0	ND			ND			ND			ND		
2-Chlorophenol	95-57-8	10.0	ND			ND			82.81	150.00	55.21	82.81	150.00	55.21
1,3-Dichlorobenzene	541-73-1	10.0	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	10.0	ND			ND			37.60	100.00	37.60	46.80	100.00	46.80
Benzyl Alcohol	100-51-6	10.0	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	10.0	ND			ND			ND			ND		
2-Methylphenol	95-48-7	10.0	ND			ND			ND			ND		
Bis(2-chloroisopropyl)ether	108-60-1	10.0	ND			ND			ND			ND		
4-Methylphenol	106-44-5	10.0	ND			ND			ND			ND		
Hexachloroethane	67-72-1	10.0	ND			ND			ND			ND		
N-Nitroso-di-N-propylamine	621-64-7	10.0	ND			ND			61.42	100.00	61.42	73.39	100.00	73.39
Nitrobenzene	98-95-3	10.0	ND			ND			ND			ND		
Isophorone	78-59-1	10.0	ND			ND			ND			ND		
2,4-Dimethylphenol	105-67-9	10.0	ND			ND			ND			ND		
2-Nitrophenol	88-75-5	10.0	ND			ND			ND			ND		
Benzoic Acid	65-85-0	10.0	ND			ND			ND			ND		
Bis(2-chloroethoxy)methane	111-91-1	10.0	ND			ND			ND			ND		
2,4-Dichlorophenol	120-83-2	10.0	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	10.0	ND			ND			40.94	100.00	40.94	50.75	100.00	50.75
Naphthalene	91-20-3	10.0	ND			ND			ND			ND		
4-Chloroaniline	106-47-8	10.0	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	10.0	ND			ND			ND			ND		
4-Chloro-3-methylphenol	59-50-7	10.0	ND			ND			105.32	150.00	70.21	57.22	150.00	38.15
2-Methylnaphthalene	91-57-6	10.0	ND			ND			ND			ND		
Hexachlorocyclopentadiene	77-47-4	10.0	ND			ND			ND			ND		
2,4,6-Trichlorophenol	88-06-2	10.0	ND			ND			ND			ND		
2,4,5-Trichlorophenol	95-95-4	10.0	ND			ND			ND			ND		
2-Chloronaphthalene	91-58-7	10.0	ND			ND			ND			ND		
2-Nitroaniline	88-74-4	10.0	ND			ND			ND			ND		
Dimethylphthalate	131-11-3	10.0	ND			ND			ND			ND		
Acenaphthylene	208-96-8	10.0	ND			ND			ND			ND		
2,6-Dinitrotoluene	606-20-2	10.0	ND			ND			ND			ND		
3-Nitroaniline	99-09-2	10.0	ND			ND			ND			ND		
Acenaphthene	83-32-9	10.0	ND			ND			59.25	100.00	59.25	64.64	100.00	64.64
2,4-Dinitrophenol	51-28-5	10.0	ND			ND			ND			ND		
4-Nitrophenol	100-02-7	10.0	ND			ND			30.77	150.00	20.51	18.29	150.00	12.19
Dibenzofuran	132-64-9	10.0	ND			ND			ND			ND		
2,4-Dinitrotoluene	121-14-2	10.0	ND			ND			73.18	100.00	73.18	76.06	100.00	76.06
Diethylphthalate	84-66-2	10.0	ND			ND			ND			ND		
Fluorene	86-73-7	10.0	ND			ND			ND			ND		
4-Chlorophenyl-phenylether	7005-72-3	10.0	ND			ND			ND			ND		
4-Nitroaniline	100-01-6	10.0	ND			ND			ND			ND		
4,6-Dinitro-2-methylphenol	534-52-1	10.0	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
BASE NEUTRALS AND ACIDS - GC/MS ANALYSIS DATA

Client: **Hercules**
Location: HER-BD02
File #: BT88747

	Date	Time	Analyst
Collection:	8/13/03	1428	Client
Extraction:	8/18/03	800	WTD
Analysis:	8/21/03	658	WTD

Sample Type: Water
Extraction Method: 3510C
Analysis Method: 8270C

Compound Name	CAS Number	PQL* ug/L (ppb)	BT88747 Detected Amount ug/L (ppb)	BT88747 Spike Amount ug	BT88747 Spike % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Spike Amount ug	BLANK Spike % Recovery	Matrix Spike Detected Amount ng/ul in the extract	Matrix Spike Spike Amount ug	Matrix Spike Spike % Recovery	Matrix Spike Duplicate Detected Amount ng/ul in the extract	Matrix Spike Duplicate Spike Amount ug	Matrix Spike Duplicate Spike % Recovery
N-Nitrosodiphenylamine	86-30-6	10.0	ND			ND			ND			ND		
4-Bromophenyl-phenylether	101-55-3	10.0	ND			ND			ND			ND		
Hexachlorobenzene	118-74-1	10.0	ND			ND			ND			ND		
Pentachlorophenol	87-86-5	10.0	ND			ND			144.86	150.00	96.57	63.51	150.00	42.34
Phenanthrene	85-01-8	10.0	ND			ND			ND			ND		
Anthracene	120-12-7	10.0	ND			ND			ND			ND		
Di-n-butylphthalate	84-74-2	10.0	ND			ND			ND			ND		
Fluoranthene	206-44-0	10.0	ND			ND			ND			ND		
Pyrene	129-00-0	10.0	ND			ND			69.76	100.00	69.76	73.39	100.00	73.39
Butylbenzylphthalate	85-68-7	10.0	ND			ND			ND			ND		
Benzo(a)anthracene	56-55-3	10.0	ND			ND			ND			ND		
3,3'-Dichlorobenzidiene	91-94-1	10.0	ND			ND			ND			ND		
Chrysene	218-01-9	10.0	ND			ND			ND			ND		
Bis(2-ethylhexyl)phthalate	117-81-7	10.0	ND			ND			ND			ND		
Di-n-octylphthalate	117-84-0	10.0	ND			ND			ND			ND		
Benzo(b)fluoranthene	205-99-2	10.0	ND			ND			ND			ND		
Benzo(k)fluoranthene	207-08-9	10.0	ND			ND			ND			ND		
Benzo(a)pyrene	50-32-8	10.0	ND			ND			ND			ND		
Indeno(1,2,3-c,d)pyrene	193-39-5	10.0	ND			ND			ND			ND		
Dibenzo(a,h)anthracene	53-70-3	10.0	ND			ND			ND			ND		
Benzo(g,h,i)perylene	191-24-2	10.0	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
2-Fluorophenol			14.89	200.00	7.45	70.09	200.00	35.05	46.24	200.00	23.12	1.24	200.00	0.62 *
Phenol-d5			28.11	200.00	14.06	49.78	200.00	24.89	37.40	200.00	18.70	5.97	200.00	2.99 *
Nitrobenzene-d5			49.38	100.00	49.38	60.18	100.00	60.18	58.22	100.00	58.22	70.40	100.00	70.40
2-Fluorobiphenyl			53.57	100.00	53.57	50.59	100.00	50.59	60.87	100.00	60.87	68.93	100.00	68.93
2,4,6-Tribromophenol			66.30	200.00	33.15	131.52	200.00	65.76	127.57	200.00	63.79	3.22	200.00	1.61 *
Terphenyl-d14			78.04	100.00	78.04	75.96	100.00	75.96	75.12	100.00	75.12	79.84	100.00	79.84

*PQL is defined as the low point on the calibratrion curve.

Certified by: Micheal S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-BD02
File #: BT88747

	Date		Analyst
Collected:	08/13/03		Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Spike Amount ug/L	SAMPLE Spike % Recovery	METHOD BLANK Detected Amount ug/L (ppb)	METHOD BLANK Spike Amount ug/L	METHOD BLANK Spike % Recovery	MATRIX SPIKE Detected Amount ug/mL (ppm)	MATRIX SPIKE Spike Amount ug/mL	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUPLICATE Detected Amount ug/mL (ppm)	MATRIX SPIKE DUPLICATE Spike Amount ug/mL	MATRIX SPIKE DUPLICATE Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		2.12	5.00	42.4	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

*PQL's are the lowest point on the calibration curve

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-BD03
File #: BT88956

Collected: 08/28/03 Client
Extracted: 09/03/03 13:45 SCF
Analyzed: 10/31/03 SCF
Date Analyst

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Spike Amount ug/L	SAMPLE Spike % Recovery	METHOD BLANK Detected Amount ug/L (ppb)	METHOD BLANK Spike Amount ug/L	METHOD BLANK Spike % Recovery	MATRIX SPIKE Detected Amount ug/mL (ppm)	MATRIX SPIKE Spike Amount ug/mL	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUPLICATE Detected Amount ug/mL (ppm)	MATRIX SPIKE DUPLICATE Spike Amount ug/mL	MATRIX SPIKE DUPLICATE Spike % Recovery
Dioxenethion	0.400	ND			ND			4.67	5.00	93.4	4.69	5.00	93.8
Dioxathion (cis)	0.400	ND			ND			4.79	5.00	95.8	4.82	5.00	96.4
Dioxathion (trans)	0.400	ND			ND			4.35	5.00	87.0	4.19	5.00	83.8
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.48	5.00	89.6	2.99	5.00	59.8	4.13	5.00	82.6	4.89	5.00	97.8

Certified by: _____
Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-RS01**
File #: BT88705

	Date	Time	Analyst
Collected:	08/12/03	7:30	Client
Received:	08/12/03	13:30	JR
Analyzed:	08/13/03	4:29	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007413

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88703) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.8	250	120	58.7	250	117
Benzene	71-43-2	1.00	ND			ND			58.3	250	117	58.2	250	116
Trichloroethene	79-01-6	1.00	ND			ND			59.9	250	120	56.8	250	114
Toluene	108-88-3	1.00	ND			ND			59.2	250	118	58.4	250	117
Chlorobenzene	108-90-7	1.00	ND			ND			53.8	250	108	55.8	250	112
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			12.4			12.0		
Naphthalene	91-20-3	5.00	ND			ND			ND			ND		
n-Propylbenz	103-65-1	1.00	ND			ND			72.1			71.2		
						ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-RS01**
File #: BT88705

	Date	Time	Analyst
Collected:	08/12/03	7:30	Client
Received:	08/12/03	13:30	JR
Analysis:	08/13/03	4:29	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007413

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		49.5	250	99.0	43.2	250	86.5	48.0	250	95.9	46.0	250	92.1
Dibromofluoromethane	1868-53-7		44.2	250	88.3	43.7	250	87.5	44.5	250	89.0	44.0	250	88.0
Toluene-d8	2037-26-5		53.9	250	108	54.0	250	108	54.7	250	109	54.2	250	108
4-Bromofluorobenzene	460-00-4		53.9	250	108	50.8	250	102	52.3	250	105	50.9	250	102

PQL is set as low point on the curve

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-RS-01
File #: BT88705

	Date		Analyst
Collected:	08/12/03	7:30	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		3.26	5.00	65.2	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

*PQL's are the lowest point on the calibration curve

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

SAMPLE RECEIPT FORM

6412

Client: Hercules

Date: 8-29-03

Sample Description: dioxathion

SDG#:

Case#:

1) Does this project fall under NPDES, RCRA, CLP, Litigation or other EPA guidelines.	NA	YES	NO
2) Did Cooler come with airbill/sticker? Circle carrier: UPS, FedEx, other:_____ If YES, enter airbill number here:	NA	YES	NO
3) Are custody seals on the outside of the cooler intact? Custody Seal#:_____	NA	YES	NO
Custody Seal#:_____ Custody Seal#:_____	NA	YES	NO
4) Are all bottles sealed in separate plastic bags?	NA	YES	NO
5) Are samples requiring no headspace, headspace free?	NA	YES	NO
6) Packing Material: Bubblewrap, peanuts, vermiculite, other: ice		YES	NO
7) Are chains of custody filled out properly? (ink, signed, dates, etc.)		YES	NO
8) Are all bottle labels complete and agree with COC? (ID, time, date, preservation?)		YES	NO
9) Were all bottles received intact?		YES	NO
10) Were correct containers used for the tests indicated? Who's: BATCO/Client		YES	NO
11) Was a sufficient aliquot of sample sent for tests indicated?		YES	NO
12) Are samples within holding times for requested analysis?		YES	NO
13) Sample Preservation?			
A) If samples were collected within 6 hours of receipt, has chilling begun?	NA	YES	NO
B) If samples were received beyond 6 hours of collection:	NA	YES	NO
1) Is there a temperature blank?	NA	YES	NO
2) If Yes, are samples received at 4°C?	NA	YES	NO
3) If No, are samples on ice?	NA	YES	NO
4) Temperature?_____			
C) Have samples been checked for correct preservation?	NA	YES	NO
1) If sample/s doesn't meet preservation, list deviation?			

14) Describe "NO" items for the above if # 1) response is NA or YES

Is there a Corrective Action and/or Client Contact form attached? YES NO

Signature: [signature]

Rev No. 1.3

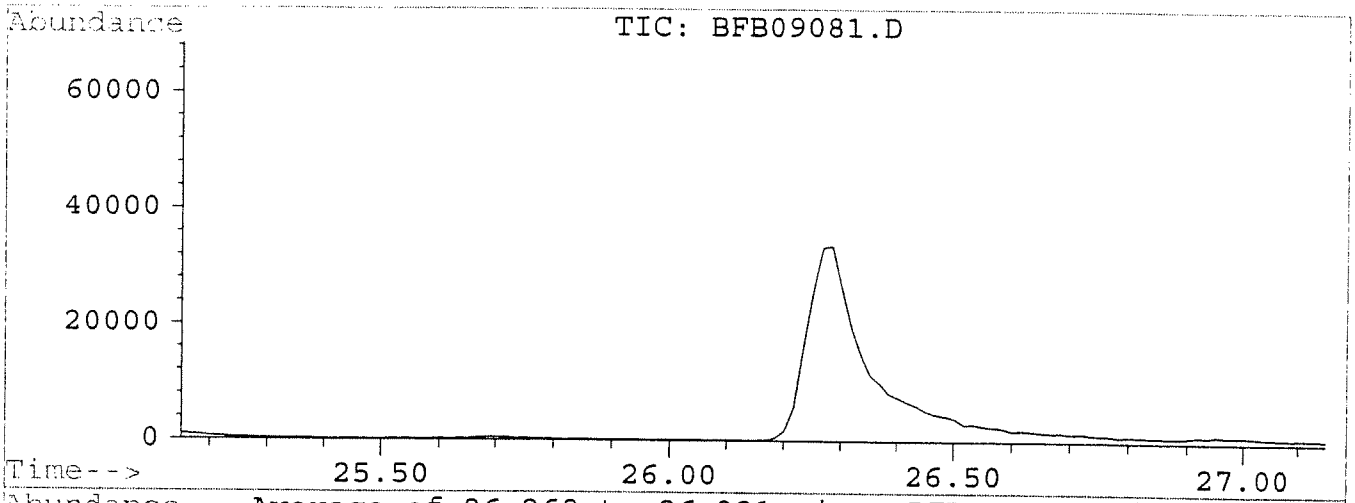
Date: 09/23/02

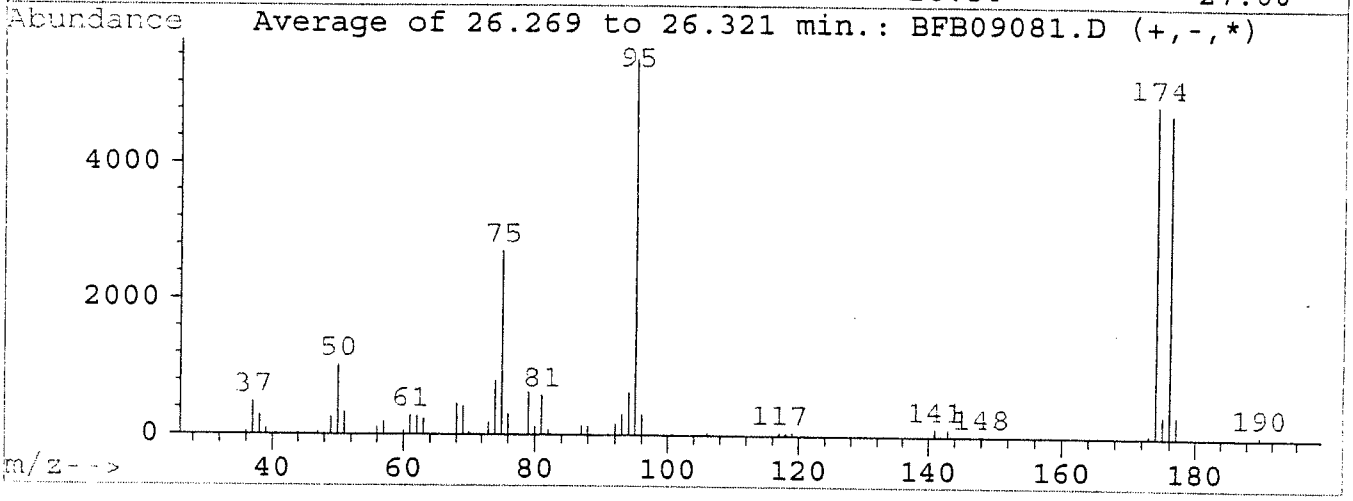
BFB

Data File : D:\MSCONV\BFB09081.D
Acq Time : Sep 5, 2003 7:26:57.48
Sample : BFB
Misc :

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B





Peak Apex is scan: 1328

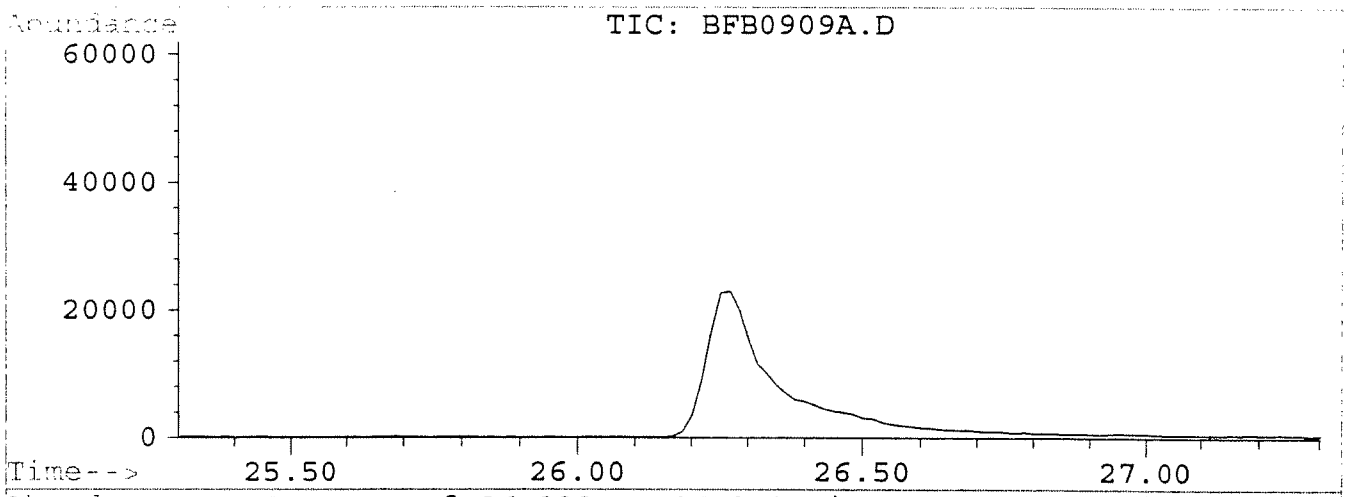
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	1022	PASS
75	95	30	60	48.8	2701	PASS
95	95	100	100	100.0	5532	PASS
96	95	5	9	5.4	296	PASS
173	174	0	2	0.9	46	PASS
174	95	50	100	88.4	4889	PASS
175	174	5	9	6.7	329	PASS
176	174	95	101	97.2	4753	PASS
177	176	5	9	6.7	320	PASS

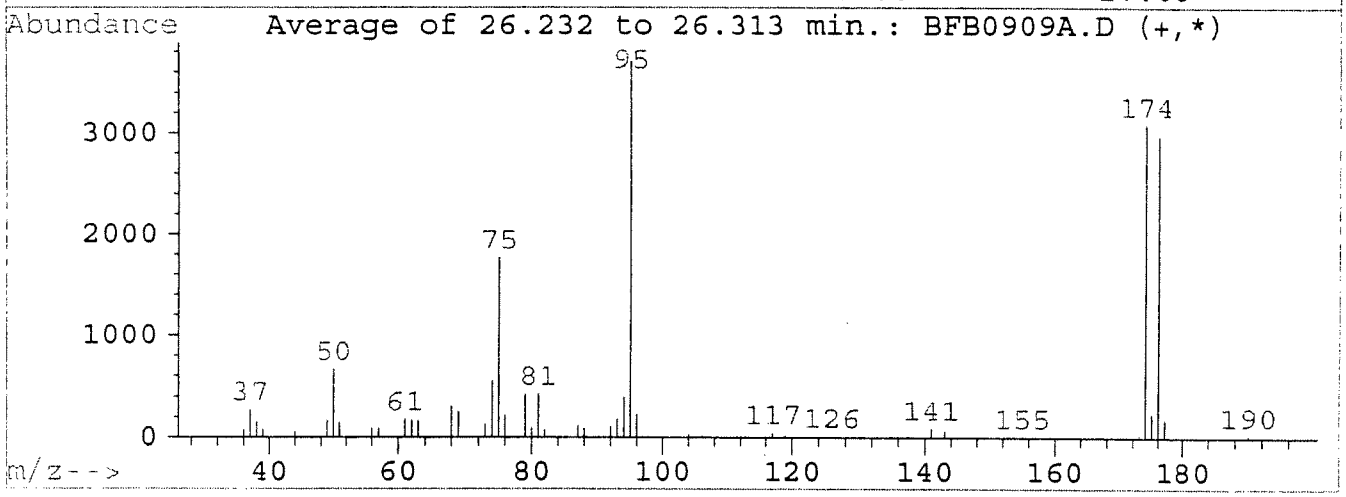
BFB

Data File : D:\MSCONV\BFB0909A.D
Acq Time : Sep 7, 2003 8:55:58.87
Sample : BFB
Misc :

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\BTX0905.M
Title : 5-Point Calibration for Method 8260B





Peak Apex is scan: 1337

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	666	PASS
75	95	30	60	47.7	1766	PASS
95	95	100	100	100.0	3701	PASS
96	95	5	9	6.1	225	PASS
173	174	0	2	0.7	22	PASS
174	95	50	100	83.3	3084	PASS
175	174	5	9	7.5	230	PASS
176	174	95	101	96.1	2964	PASS
177	176	5	9	5.9	175	PASS

Evaluate Continuing Calibration Report

Data File : D:\MSCONV\CCC09081.D
Acq Time : Sep 5, 2003 16:10:43.76
Sample : CCC
Misc :

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\CCC0905.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:57:39 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
1	I	Fluorobenzene	1.000	1.000	0.0	100	-0.14
2	S	1,2-Dichloroethane-d4	0.019	0.021	-10.5	111	-0.19
3	S	Dibromofluoromethane	0.446	0.450	-0.8	103	-0.18
4	P	Chloromethane	0.034	0.033	2.2	85	0.02
5	C	Vinyl Chloride	0.238	0.283	-18.7	101	0.18
6	P	1,1-Dichloroethene	0.235	0.260	-10.8	97	-0.22
7	C	1,1-Dichloroethane	0.435	0.485	-11.6	101	-0.20
8	C	Chloroform	0.743	0.720	3.1	101	-0.17
9	P	Trichloroethene	0.318	0.346	-8.9	102	-0.17
10	C	Toluene	0.621	0.633	-2.0	100	-0.11
[illegible]	I	Chlorobenzene-d5	1.000	1.000	0.0	103	-0.25
[illegible]	S	Toluene-d8	1.837	1.783	2.9	101	-0.07
[illegible]	P	Chlorobenzene	0.920	0.955	-3.8	97	-0.08
14	C	Ethylbenzene	0.398	0.397	0.2	102	-0.03
15	P	Bromoform	0.091	0.106	-15.9	107	-0.05
16	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	-0.09
17	S	4-Bromofluorobenzene	1.022	0.958	6.2	105	-0.07
18	P	1,1,2,2-Tetrachloroethane	0.347	0.377	-8.7	108	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
090503D.D CCC0905.M Fri Sep 12 11:06:47 2003

Evaluate Continuing Calibration Report

Data File : D:\MSCONV\CCC09091.D
Acq Time : Sep 7, 2003 10:19:13.52 Operator:
Sample : CCC Inst :
Misc : Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\CCC0905.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:57:39 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
1	I	Fluorobenzene	1.000	1.000	0.0	105	-0.21
2	S	1,2-Dichloroethane-d4	0.019	0.018	2.7	102	-0.24
3	S	Dibromofluoromethane	0.446	0.458	-2.5	109	-0.22
4	P	Chloromethane	0.034	0.036	-5.4	96	-0.03
5	C	Vinyl Chloride	0.238	0.279	-17.0	104	0.15
6	P	1,1-Dichloroethene	0.235	0.257	-9.3	100	-0.25
7	C	1,1-Dichloroethane	0.435	0.483	-11.2	105	-0.24
8	C	Chloroform	0.743	0.708	4.7	103	-0.20
9	P	Trichloroethene	0.318	0.342	-7.6	105	-0.20
10	C	Toluene	0.621	0.625	-0.7	103	-0.17
	I	Chlorobenzene-d5	1.000	1.000	0.0	107	-0.32
	S	Toluene-d8	1.837	1.778	3.2	105	-0.13
	P	Chlorobenzene	0.920	0.989	-7.5	104	-0.13
14	C	Ethylbenzene	0.398	0.374	5.9	99	-0.08
15	P	Bromoform	0.091	0.109	-18.8	114	-0.10
16	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	112	-0.12
17	S	4-Bromofluorobenzene	1.022	0.946	7.4	112	-0.12
18	P	1,1,2,2-Tetrachloroethane	0.347	0.383	-10.3	119	-0.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0
090503D.D CCC0905.M Fri Sep 12 10:50:28 2003

Quantitation Report

Data File : D:\MSCONV\LCS09081.D
Acq Time : Sep 5, 2003 11:09:25.25
Sample : LCS
Misc :
Quant Time: Sep 12 11:08 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	13.45	96	161212	50.00 ug/L	-0.13
31) Chlorobenzene-d5	22.75	117	141948	50.00 ug/L	-0.25
45) 1,4-Dichlorobenzene-d4	28.53	152	43675	50.00 ug/L	-0.04
System Monitoring Compounds					%Recovery
2) 1,2-Dichloroethane-d4	12.53	102	3025	49.37 ugL	98.75%
3) Dibromofluoromethane	11.35	113	73238	50.88 ug/L	101.75%
32) Toluene-d8	18.12	98	262435	50.33 ug/L	100.65%
46) 4-Bromofluorobenzene	26.30	95	50131	56.17 ug/L	112.35%
Target Compounds					Qvalue
4) Dichlorodifluoromethane	0.00	85		Not Detected	
5) Chloromethane	0.00	49		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) Bromomethane	0.00	94		Not Detected	
8) Chloroethane	0.00	49		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
11) Methylene Chloride	0.00	84		Not Detected	
12) t-1,2-Dichloroethene	0.00	96		Not Detected	
13) 1,1-Dichloroethane	0.00	63		Not Detected	
14) 2,2-Dichloropropane	0.00	77		Not Detected	
15) c-1,2-Dichloroethene	0.00	61		Not Detected	
16) Chloroform	0.00	83		Not Detected	
17) Bromochloromethane	0.00	49		Not Detected	
18) 1,1,1-Trichloroethane	0.00	97		Not Detected	
19) Carbon Tetrachloride	0.00	117		Not Detected	
20) 1,1-Dichloropropene	0.00	75		Not Detected	
21) Benzene	12.90	78	192141	53.14 ug/L	100
22) 1,2-Dichloroethane	0.00	62		Not Detected	
23) Trichloroethene	14.55	95	55996	54.69 ug/L	97
24) 1,2-Dichloropropane	0.00	63		Not Detected	
25) Bromodichloromethane	0.00	83		Not Detected	
26) Dibromomethane	0.00	93		Not Detected	
27) c-1,3-Dichloropropene	0.00	75		Not Detected	
28) Toluene	18.35	92	100559	50.23 ug/L	93
29) t-1,3-Dichloropropene	0.00	75		Not Detected	
30) 1,1,2-Trichloroethane	0.00	83		Not Detected	
33) Tetrachloroethene	0.00	166		Not Detected	
34) 1,3-Dichloropropane	0.00	76		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\LCS09081.D
Acq Time : Sep 5, 2003 11:09:25.25
Sample : LCS
Misc :
Quant Time: Sep 12 11:08 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
35)	Dibromochloromethane	0.00	129		Not Detected	
36)	1,2-Dibromoethane	0.00	107		Not Detected	
37)	Chlorobenzene	22.85	112	147683	56.57 ug/L	98
38)	1,1,1,2-Tetrachloroethane	0.00	131		Not Detected	
39)	Ethylbenzene	0.00	106		Not Detected	
40)	p,m-Xylene	0.00	106		Not Detected	
41)	o-Xylene	0.00	106		Not Detected	
42)	Styrene	0.00	104		Not Detected	
43)	Bromoform	0.00	173		Not Detected	
44)	Isopropylbenzene	0.00	105		Not Detected	
47)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
48)	Bromobenzene	0.00	156		Not Detected	
49)	1,2,3-Trichloropropane	0.00	75		Not Detected	
50)	n-Propylbenzene	0.00	91		Not Detected	
51)	2-Chlorotoluene	0.00	91		Not Detected	
52)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
53)	4-Chlorotoluene	0.00	91		Not Detected	
54)	t-Butylbenzene	0.00	119		Not Detected	
55)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
56)	sec-Butylbenzene	0.00	105		Not Detected	
57)	p-Isopropyltoluene	0.00	119		Not Detected	
58)	1,3-Dichlorobenzene	0.00	146		Not Detected	
59)	1,4-Dichlorobenzene	0.00	146		Not Detected	
60)	n-Butylbenzene	0.00	91		Not Detected	
61)	1,2-Dichlorobenzene	0.00	146		Not Detected	
62)	1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
63)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
64)	Hexachlorobutadiene	0.00	225		Not Detected	
65)	Naphthalene	0.00	128		Not Detected	
66)	1,2,3-Trichlorobenzene	0.00	180		Not Detected	

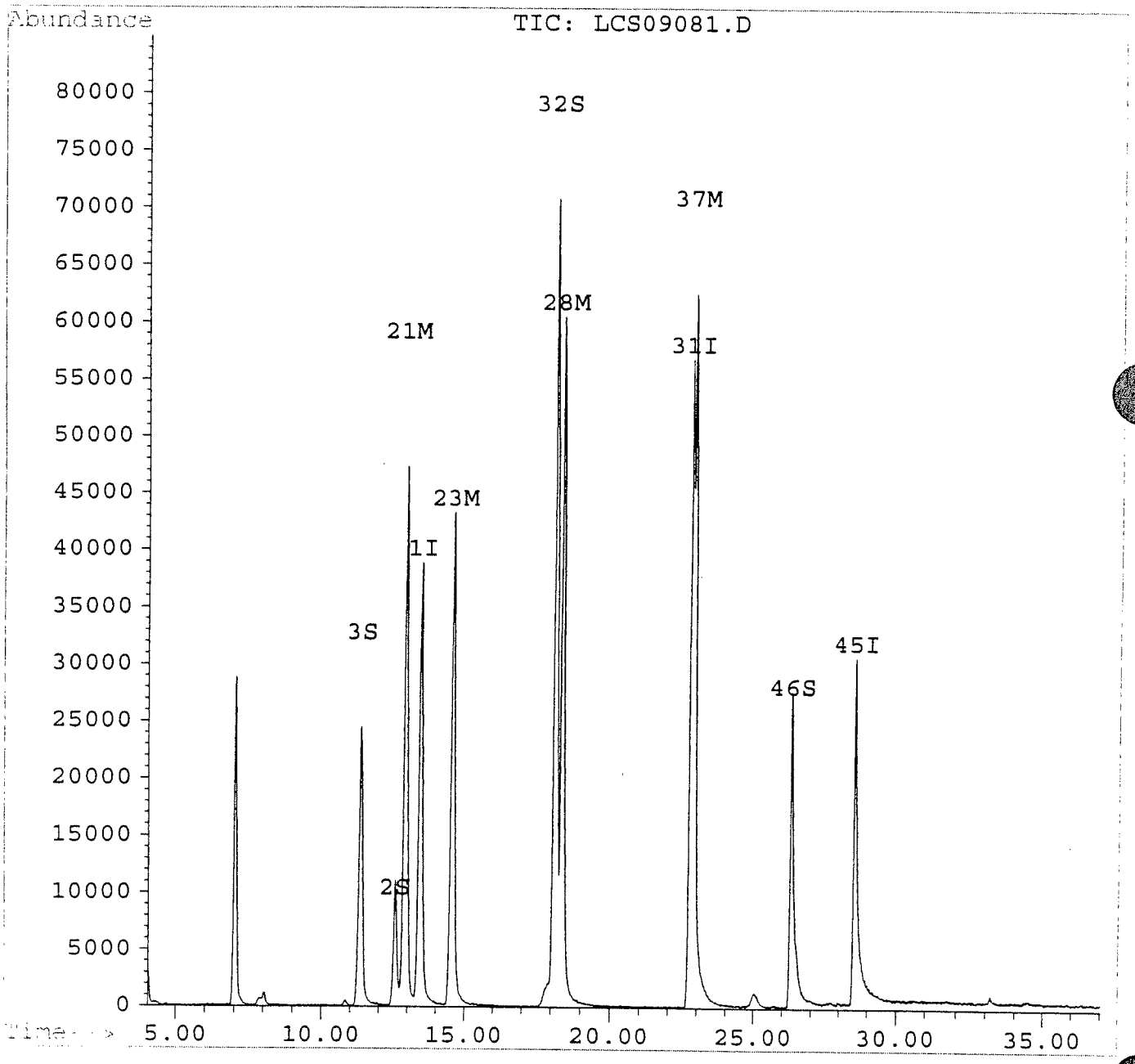
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\LCS09081.D
Acq Time : Sep 5, 2003 11:09:25.25
Sample : LCS
Misc :
Quant Time: Sep 12 11:08 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration



Quantitation Report

Data File : D:\MSCONV\BT88952.D
Acq Time : Sep 7, 2003 12:24:15.14 Operator:
Sample : HER-MW10-MS Inst :
Misc : Multiplr: 1.00
Quant Time: Sep 12 11:14 19103

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	13.38	96	156740	50.00 ug/L	-0.19
31) Chlorobenzene-d5	22.70	117	142263	50.00 ug/L	-0.30
45) 1,4-Dichlorobenzene-d4	28.50	152	43089	50.00 ug/L	-0.07
System Monitoring Compounds					%Recovery
2) 1,2-Dichloroethane-d4	12.48	102	2904	48.75 ugL	97.50%
3) Dibromofluoromethane	11.30	113	71313	50.95 ug/L	101.91%
32) Toluene-d8	18.07	98	253222	48.45 ug/L	96.90%
46) 4-Bromofluorobenzene	26.25	95	49255	55.94 ug/L	111.89%
Target Compounds					Qvalue
4) Dichlorodifluoromethane	0.00	85		Not Detected	
5) Chloromethane	0.00	49		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) Bromomethane	0.00	94		Not Detected	
8) Chloroethane	0.00	49		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	6.97	96	36722	49.87 ug/L m	0
11) Methylene Chloride	0.00	84		Not Detected	
12) t-1,2-Dichloroethene	0.00	96		Not Detected	
13) 1,1-Dichloroethane	0.00	63		Not Detected	
14) 2,2-Dichloropropane	0.00	77		Not Detected	
15) c-1,2-Dichloroethene	0.00	61		Not Detected	
16) Chloroform	0.00	83		Not Detected	
17) Bromochloromethane	0.00	49		Not Detected	
18) 1,1,1-Trichloroethane	0.00	97		Not Detected	
19) Carbon Tetrachloride	0.00	117		Not Detected	
20) 1,1-Dichloropropene	0.00	75		Not Detected	
21) Benzene	12.85	78	170541	48.51 ug/L	100
22) 1,2-Dichloroethane	0.00	62		Not Detected	
23) Trichloroethene	14.48	95	51378	51.61 ug/L	98
24) 1,2-Dichloropropane	0.00	63		Not Detected	
25) Bromodichloromethane	0.00	83		Not Detected	
26) Dibromomethane	0.00	93		Not Detected	
27) c-1,3-Dichloropropene	0.00	75		Not Detected	
28) Toluene	18.32	92	89840	46.16 ug/L	91
29) t-1,3-Dichloropropene	0.00	75		Not Detected	
30) 1,1,2-Trichloroethane	0.00	83		Not Detected	
33) Tetrachloroethene	0.00	166		Not Detected	
34) 1,3-Dichloropropane	0.00	76		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BT88952.D
Acq Time : Sep 7, 2003 12:24:15.14
Sample : HER-MW10-MS
Misc :
Quant Time: Sep 12 11:14 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
35)	Dibromochloromethane	0.00	129		Not Detected	
36)	1,2-Dibromoethane	0.00	107		Not Detected	
37)	Chlorobenzene	22.82	112	132786	50.75 ug/L	100
38)	1,1,1,2-Tetrachloroethane	0.00	131		Not Detected	
39)	Ethylbenzene	0.00	106		Not Detected	
40)	p,m-Xylene	0.00	106		Not Detected	
41)	o-Xylene	0.00	106		Not Detected	
42)	Styrene	0.00	104		Not Detected	
43)	Bromoform	0.00	173		Not Detected	
44)	Isopropylbenzene	0.00	105		Not Detected	
47)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
48)	Bromobenzene	0.00	156		Not Detected	
49)	1,2,3-Trichloropropane	0.00	75		Not Detected	
50)	n-Propylbenzene	0.00	91		Not Detected	
51)	2-Chlorotoluene	0.00	91		Not Detected	
52)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
53)	4-Chlorotoluene	0.00	91		Not Detected	
54)	t-Butylbenzene	0.00	119		Not Detected	
55)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
56)	sec-Butylbenzene	0.00	105		Not Detected	
57)	p-Isopropyltoluene	0.00	119		Not Detected	
58)	1,3-Dichlorobenzene	0.00	146		Not Detected	
59)	1,4-Dichlorobenzene	0.00	146		Not Detected	
60)	n-Butylbenzene	0.00	91		Not Detected	
61)	1,2-Dichlorobenzene	0.00	146		Not Detected	
62)	1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
63)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
64)	Hexachlorobutadiene	0.00	225		Not Detected	
65)	Naphthalene	0.00	128		Not Detected	
66)	1,2,3-Trichlorobenzene	0.00	180		Not Detected	

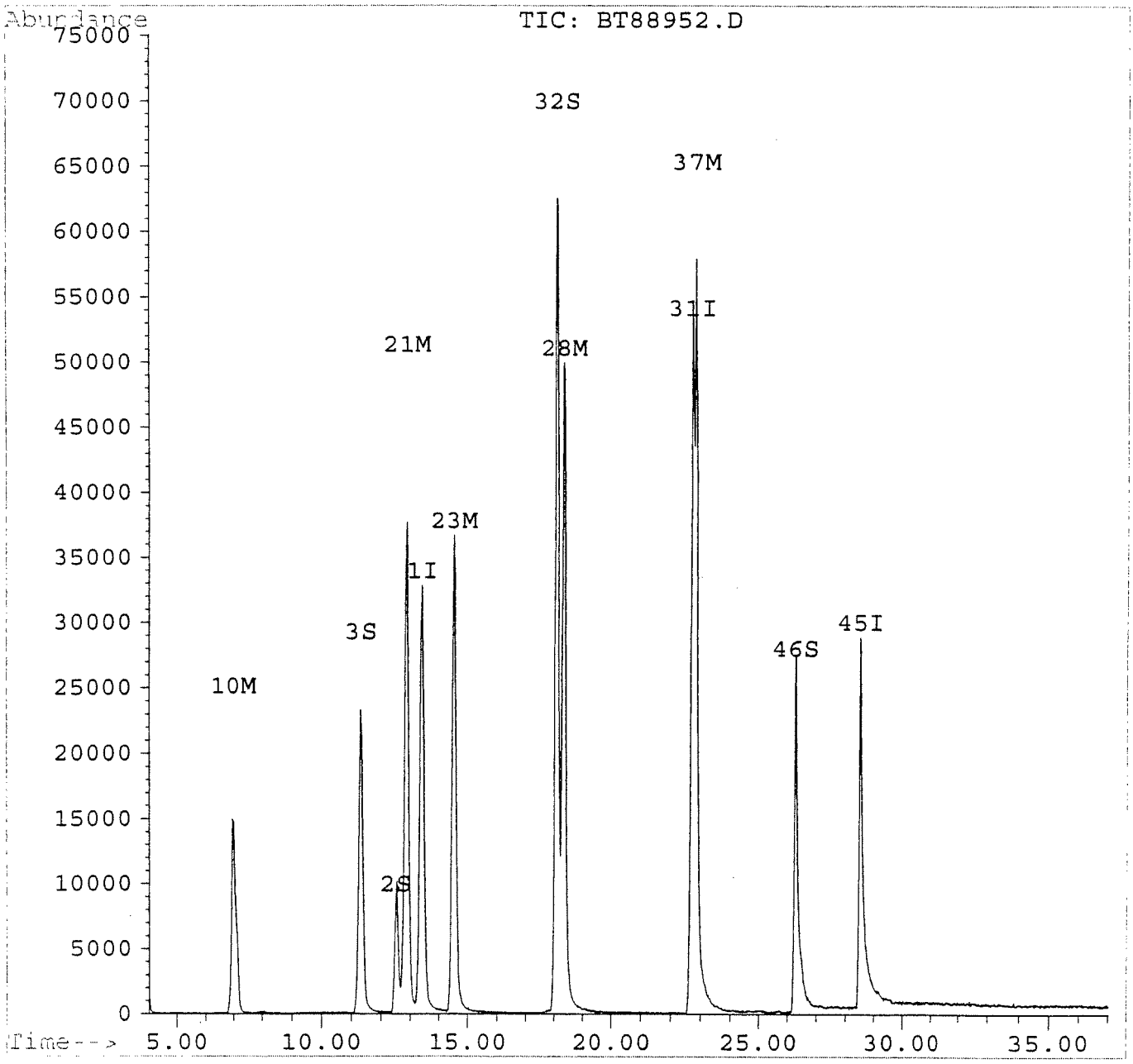
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BT88952.D
Acq Time : Sep 7, 2003 12:24:15.14
Sample : HER-MW10-MS
Misc :
Quant Time: Sep 12 11:14 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration



Quantitation Report

Data File : D:\MSCONV\BT88953.D
Acq Time : Sep 7, 2003 13:05:56.22
Sample : HER-MW10-MSD
Misc :
Quant Time: Sep 12 11:16 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	13.37	96	154024	50.00 ug/L	-0.21
31) Chlorobenzene-d5	22.70	117	137212	50.00 ug/L	-0.30
45) 1,4-Dichlorobenzene-d4	28.50	152	41318	50.00 ug/L	-0.07
System Monitoring Compounds					%Recovery
2) 1,2-Dichloroethane-d4	12.52	102	2964	50.64 ugL	101.27%
3) Dibromofluoromethane	11.30	113	70154	51.01 ug/L	102.02%
32) Toluene-d8	18.05	98	250021	49.60 ug/L	99.20%
46) 4-Bromofluorobenzene	26.25	95	47493	56.25 ug/L	112.51%
Target Compounds					Qvalue
4) Dichlorodifluoromethane	0.00	85		Not Detected	
5) Chloromethane	0.00	49		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) Bromomethane	0.00	94		Not Detected	
8) Chloroethane	0.00	49		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	6.95	96	36026	49.79 ug/L m	0
11) Methylene Chloride	0.00	84		Not Detected	
12) t-1,2-Dichloroethene	0.00	96		Not Detected	
13) 1,1-Dichloroethane	0.00	63		Not Detected	
14) 2,2-Dichloropropane	0.00	77		Not Detected	
15) c-1,2-Dichloroethene	0.00	61		Not Detected	
16) Chloroform	0.00	83		Not Detected	
17) Bromochloromethane	0.00	49		Not Detected	
18) 1,1,1-Trichloroethane	0.00	97		Not Detected	
19) Carbon Tetrachloride	0.00	117		Not Detected	
20) 1,1-Dichloropropene	0.00	75		Not Detected	
21) Benzene	12.85	78	175397	50.77 ug/L	100
22) 1,2-Dichloroethane	0.00	62		Not Detected	
23) Trichloroethene	14.48	95	50688	51.82 ug/L	95
24) 1,2-Dichloropropane	0.00	63		Not Detected	
25) Bromodichloromethane	0.00	83		Not Detected	
26) Dibromomethane	0.00	93		Not Detected	
27) c-1,3-Dichloropropene	0.00	75		Not Detected	
28) Toluene	18.30	92	91496	47.84 ug/L	97
29) t-1,3-Dichloropropene	0.00	75		Not Detected	
30) 1,1,2-Trichloroethane	0.00	83		Not Detected	
33) Tetrachloroethene	0.00	166		Not Detected	
34) 1,3-Dichloropropane	0.00	76		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BT88953.D
Acq Time : Sep 7, 2003 13:05:56.22
Sample : HER-MW10-MSD
Misc :
Quant Time: Sep 12 11:16 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
35)	Dibromochloromethane	0.00	129		Not Detected	
36)	1,2-Dibromoethane	0.00	107		Not Detected	
37)	Chlorobenzene	22.82	112	136062	53.92 ug/L	99
38)	1,1,1,2-Tetrachloroethane	0.00	131		Not Detected	
39)	Ethylbenzene	0.00	106		Not Detected	
40)	p,m-Xylene	0.00	106		Not Detected	
41)	o-Xylene	0.00	106		Not Detected	
42)	Styrene	0.00	104		Not Detected	
43)	Bromoform	0.00	173		Not Detected	
44)	Isopropylbenzene	0.00	105		Not Detected	
47)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
48)	Bromobenzene	0.00	156		Not Detected	
49)	1,2,3-Trichloropropane	0.00	75		Not Detected	
50)	n-Propylbenzene	0.00	91		Not Detected	
51)	2-Chlorotoluene	0.00	91		Not Detected	
52)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
53)	4-Chlorotoluene	0.00	91		Not Detected	
54)	t-Butylbenzene	0.00	119		Not Detected	
55)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
56)	sec-Butylbenzene	0.00	105		Not Detected	
57)	p-Isopropyltoluene	0.00	119		Not Detected	
58)	1,3-Dichlorobenzene	0.00	146		Not Detected	
59)	1,4-Dichlorobenzene	0.00	146		Not Detected	
60)	n-Butylbenzene	0.00	91		Not Detected	
61)	1,2-Dichlorobenzene	0.00	146		Not Detected	
62)	1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
63)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
64)	Hexachlorobutadiene	0.00	225		Not Detected	
65)	Naphthalene	0.00	128		Not Detected	
66)	1,2,3-Trichlorobenzene	0.00	180		Not Detected	

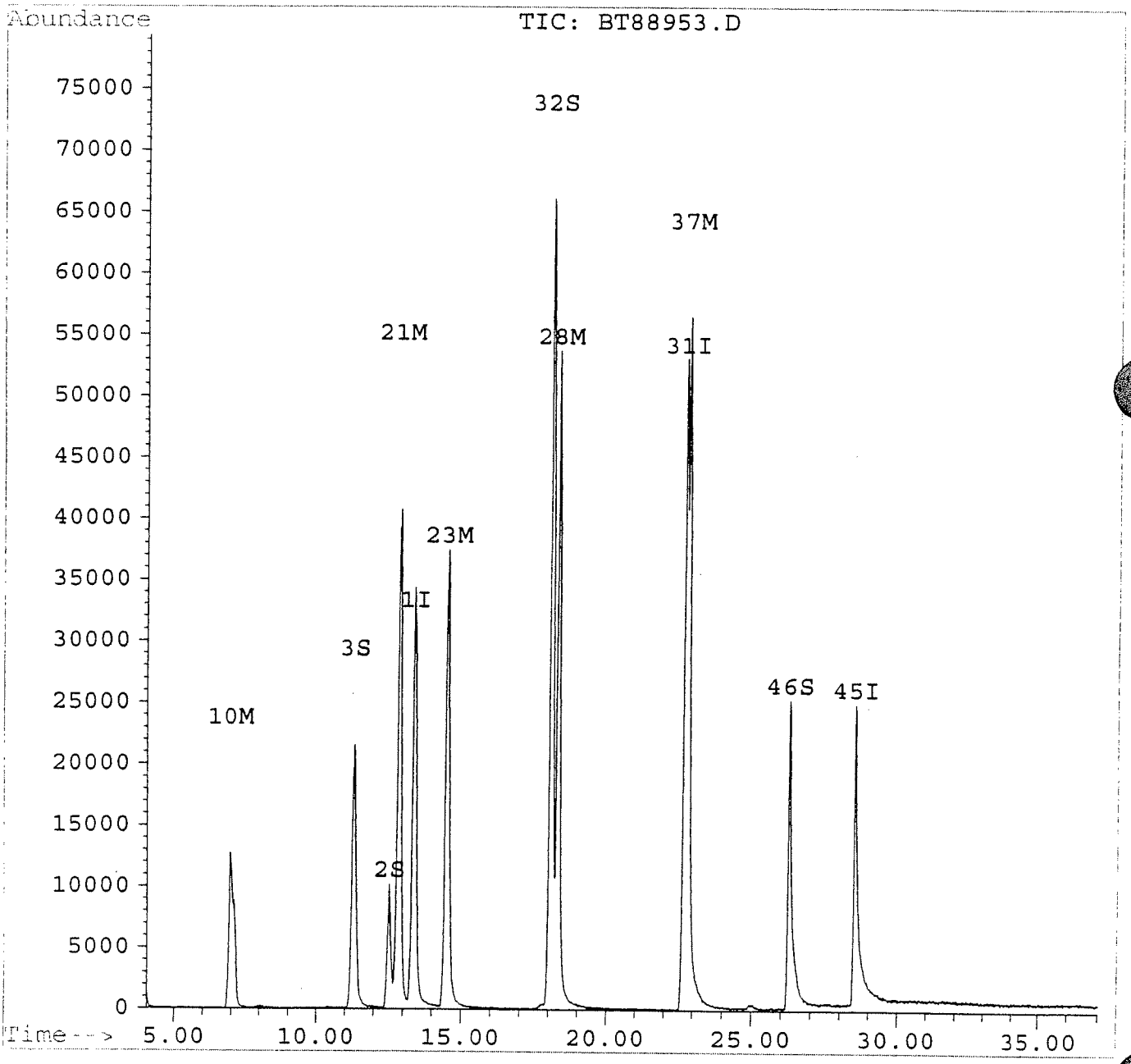
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BT88953.D
Acq Time : Sep 7, 2003 13:05:56.22
Sample : HER-MW10-MSD
Misc :
Quant Time: Sep 12 11:16 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration



Quantitation Report

Data File : D:\MSCONV\BLK0908C.D
Acq Time : Sep 5, 2003 15:29:12.17 Operator:
Sample : BLANK Inst :
Misc : Multiplr: 1.00
Quant Time: Sep 12 11:05 19103

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	13.43	96	152718	50.00 ug/L	-0.14
31) Chlorobenzene-d5	22.77	117	136040	50.00 ug/L	-0.23
45) 1,4-Dichlorobenzene-d4	28.53	152	41419	50.00 ug/L	-0.04
System Monitoring Compounds					**%Recovery**
2) 1,2-Dichloroethane-d4	12.55	102	2974	51.24 ugL	102.48%
3) Dibromofluoromethane	11.32	113	70007	51.34 ug/L	102.67%
32) Toluene-d8	18.12	98	247351	49.49 ug/L	98.99%
46) 4-Bromofluorobenzene	26.30	95	47605	56.25 ug/L	112.50%
Target Compounds					**Qvalue**
4) Dichlorodifluoromethane	0.00	85		Not Detected	
5) Chloromethane	0.00	49		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) Bromomethane	0.00	94		Not Detected	
8) Chloroethane	0.00	49		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
11) Methylene Chloride	0.00	84		Not Detected	
12) t-1,2-Dichloroethene	0.00	96		Not Detected	
13) 1,1-Dichloroethane	0.00	63		Not Detected	
14) 2,2-Dichloropropane	0.00	77		Not Detected	
15) c-1,2-Dichloroethene	0.00	61		Not Detected	
16) Chloroform	0.00	83		Not Detected	
17) Bromochloromethane	0.00	49		Not Detected	
18) 1,1,1-Trichloroethane	0.00	97		Not Detected	
19) Carbon Tetrachloride	0.00	117		Not Detected	
20) 1,1-Dichloropropene	0.00	75		Not Detected	
21) Benzene	0.00	78		Not Detected	
22) 1,2-Dichloroethane	0.00	62		Not Detected	
23) Trichloroethene	0.00	95		Not Detected	
24) 1,2-Dichloropropane	0.00	63		Not Detected	
25) Bromodichloromethane	0.00	83		Not Detected	
26) Dibromomethane	0.00	93		Not Detected	
27) c-1,3-Dichloropropene	0.00	75		Not Detected	
28) Toluene	0.00	92		Not Detected	
29) t-1,3-Dichloropropene	0.00	75		Not Detected	
30) 1,1,2-Trichloroethane	0.00	83		Not Detected	
33) Tetrachloroethene	0.00	166		Not Detected	
34) 1,3-Dichloropropane	0.00	76		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BLK0908C.D
Acq Time : Sep 5, 2003 15:29:12.17
Sample : BLANK
Misc :
Quant Time: Sep 12 11:05 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
35) Dibromochloromethane	0.00	129		Not Detected	
36) 1,2-Dibromoethane	0.00	107		Not Detected	
37) Chlorobenzene	0.00	112		Not Detected	
38) 1,1,1,2-Tetrachloroethane	0.00	131		Not Detected	
39) Ethylbenzene	0.00	106		Not Detected	
40) p,m-Xylene	0.00	106		Not Detected	
41) o-Xylene	0.00	106		Not Detected	
42) Styrene	0.00	104		Not Detected	
43) Bromoform	0.00	173		Not Detected	
44) Isopropylbenzene	0.00	105		Not Detected	
47) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
48) Bromobenzene	0.00	156		Not Detected	
49) 1,2,3-Trichloropropane	0.00	75		Not Detected	
50) n-Propylbenzene	0.00	91		Not Detected	
51) 2-Chlorotoluene	0.00	91		Not Detected	
52) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
53) 4-Chlorotoluene	0.00	91		Not Detected	
54) t-Butylbenzene	0.00	119		Not Detected	
55) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
56) sec-Butylbenzene	0.00	105		Not Detected	
57) p-Isopropyltoluene	0.00	119		Not Detected	
58) 1,3-Dichlorobenzene	0.00	146		Not Detected	
59) 1,4-Dichlorobenzene	0.00	146		Not Detected	
60) n-Butylbenzene	0.00	91		Not Detected	
61) 1,2-Dichlorobenzene	0.00	146		Not Detected	
62) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
63) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
64) Hexachlorobutadiene	0.00	225		Not Detected	
65) Naphthalene	0.00	128		Not Detected	
66) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

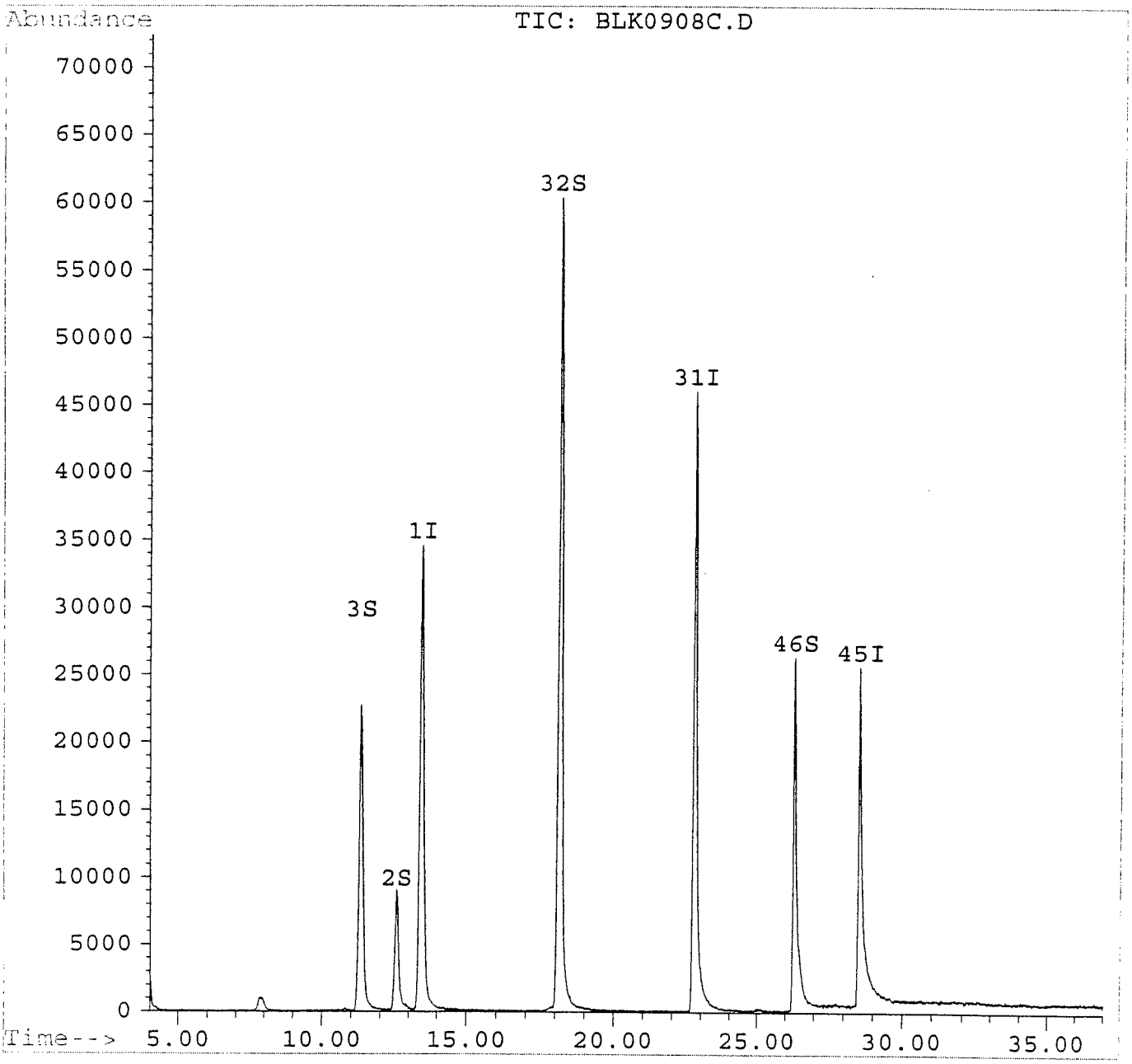
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BLK0908C.D
Acq Time : Sep 5, 2003 15:29:12.17
Sample : BLANK
Misc :
Quant Time: Sep 12 11:05 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration



Quantitation Report

Data File : D:\MSCONV\BT88950.D
Acq Time : Sep 5, 2003 19:46:33.21
Sample : HER-MW01-082803
Misc :
Quant Time: Sep 12 11:10 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	13.47	96	157069	50.00 ug/L	-0.11
31) Chlorobenzene-d5	22.80	117	137233	50.00 ug/L	-0.20
45) 1,4-Dichlorobenzene-d4	28.57	152	42466	50.00 ug/L	0.00

System Monitoring Compounds					%Recovery
2) 1,2-Dichloroethane-d4	12.58	102	2922	48.95 ugL	97.90%
3) Dibromofluoromethane	11.37	113	70804	50.48 ug/L	100.97%
32) Toluene-d8	18.17	98	254283	50.44 ug/L	100.88%
46) 4-Bromofluorobenzene	26.33	95	47343	54.56 ug/L	109.12%

Target Compounds				Qvalue
4) Dichlorodifluoromethane	0.00	85	Not Detected	
5) Chloromethane	0.00	49	Not Detected	
6) Vinyl Chloride	0.00	62	Not Detected	
7) Bromomethane	0.00	94	Not Detected	
8) Chloroethane	0.00	49	Not Detected	
9) Trichlorofluoromethane	0.00	101	Not Detected	
10) 1,1-Dichloroethene	0.00	96	Not Detected	
11) Methylene Chloride	0.00	84	Not Detected	
12) t-1,2-Dichloroethene	0.00	96	Not Detected	
13) 1,1-Dichloroethane	0.00	63	Not Detected	
14) 2,2-Dichloropropane	0.00	77	Not Detected	
15) c-1,2-Dichloroethene	0.00	61	Not Detected	
16) Chloroform	0.00	83	Not Detected	
17) Bromochloromethane	0.00	49	Not Detected	
18) 1,1,1-Trichloroethane	0.00	97	Not Detected	
19) Carbon Tetrachloride	0.00	117	Not Detected	
20) 1,1-Dichloropropene	0.00	75	Not Detected	
21) Benzene	0.00	78	Not Detected	
22) 1,2-Dichloroethane	0.00	62	Not Detected	
23) Trichloroethene	0.00	95	Not Detected	
24) 1,2-Dichloropropane	0.00	63	Not Detected	
25) Bromodichloromethane	0.00	83	Not Detected	
26) Dibromomethane	0.00	93	Not Detected	
27) c-1,3-Dichloropropene	0.00	75	Not Detected	
28) Toluene	0.00	92	Not Detected	
29) t-1,3-Dichloropropene	0.00	75	Not Detected	
30) 1,1,2-Trichloroethane	0.00	83	Not Detected	
33) Tetrachloroethene	0.00	166	Not Detected	
34) 1,3-Dichloropropane	0.00	76	Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BT88950.D
Acq Time : Sep 5, 2003 19:46:33.21
Sample : HER-MW01-082803
Misc :
Quant Time: Sep 12 11:10 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
35) Dibromochloromethane	0.00	129		Not Detected	
36) 1,2-Dibromoethane	0.00	107		Not Detected	
37) Chlorobenzene	0.00	112		Not Detected	
38) 1,1,1,2-Tetrachloroethane	0.00	131		Not Detected	
39) Ethylbenzene	0.00	106		Not Detected	
40) p,m-Xylene	0.00	106		Not Detected	
41) o-Xylene	0.00	106		Not Detected	
42) Styrene	0.00	104		Not Detected	
43) Bromoform	0.00	173		Not Detected	
44) Isopropylbenzene	0.00	105		Not Detected	
47) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
48) Bromobenzene	0.00	156		Not Detected	
49) 1,2,3-Trichloropropane	0.00	75		Not Detected	
50) n-Propylbenzene	0.00	91		Not Detected	
51) 2-Chlorotoluene	0.00	91		Not Detected	
52) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
53) 4-Chlorotoluene	0.00	91		Not Detected	
54) t-Butylbenzene	28.25	119	3619	1.34 ug/L m	89
55) 1,2,4-Trimethylbenzene	27.72	105	4078	1.23 ug/L m	96
56) sec-Butylbenzene	0.00	105		Not Detected	
57) p-Isopropyltoluene	28.25	119	3619	1.34 ug/L m	92
58) 1,3-Dichlorobenzene	28.45	146	1681	1.39 ug/L m	27
59) 1,4-Dichlorobenzene	28.63	146	2854	2.20 ug/L m	27
60) n-Butylbenzene	0.00	91		Not Detected	
61) 1,2-Dichlorobenzene	29.33	146	2578	2.70 ug/L m	25
62) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
63) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
64) Hexachlorobutadiene	33.20	225	1691	5.05 ug/L m	60
65) Naphthalene	0.00	128		Not Detected	
66) 1,2,3-Trichlorobenzene	34.38	180	146	1.40 ug/L m	11

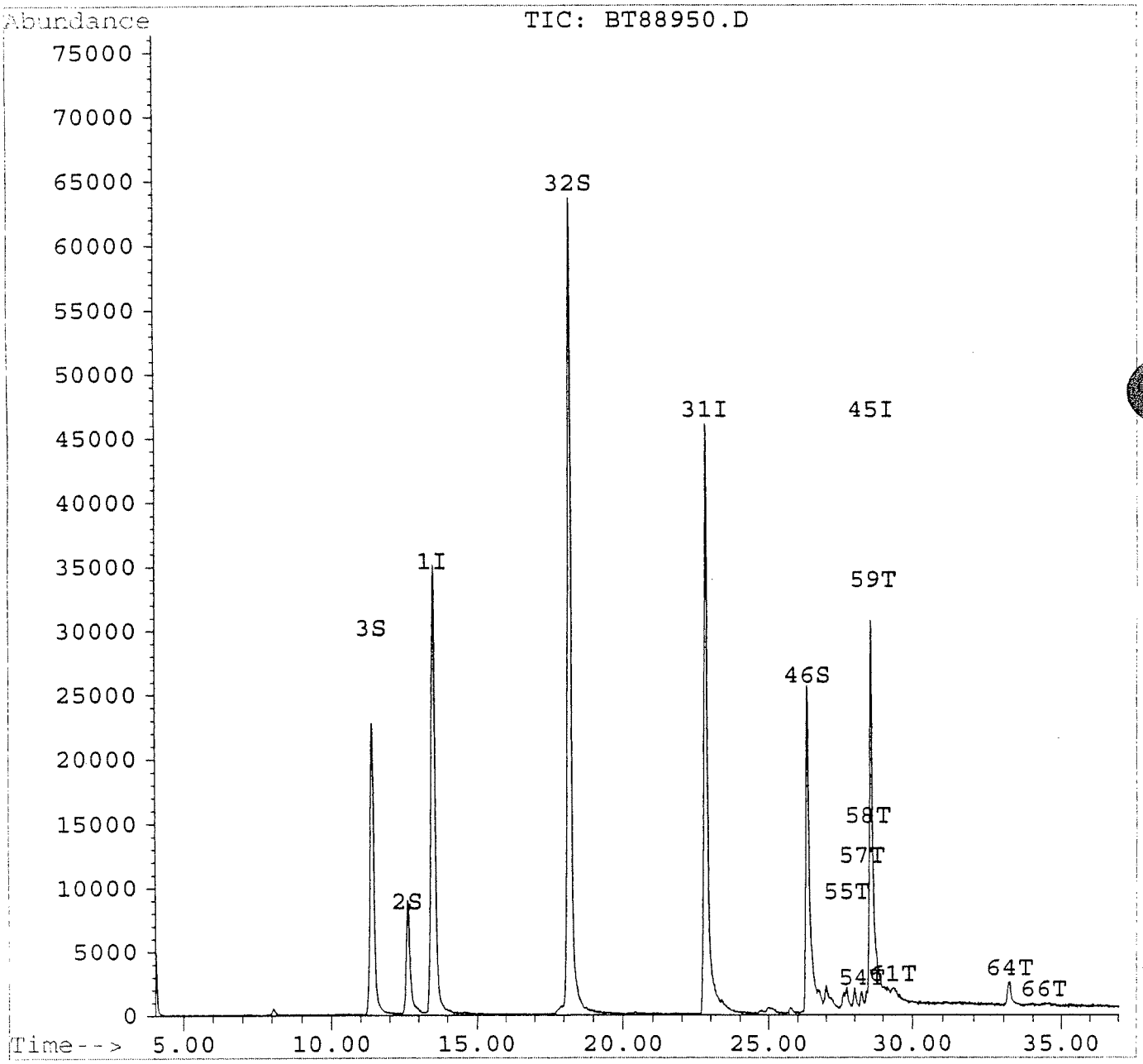
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BT88950.D
Acq Time : Sep 5, 2003 19:46:33.21
Sample : HER-MW01-082803
Misc :
Quant Time: Sep 12 11:10 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration



Quantitation Report

Data File : D:\MSCONV\BT88951.D
Acq Time : Sep 5, 2003 20:28:07.65
Sample : HER-MW10-082803
Misc :
Quant Time: Sep 12 11:12 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	13.43	96	157287	50.00 ug/L	-0.14
31) Chlorobenzene-d5	22.77	117	139564	50.00 ug/L	-0.23
45) 1,4-Dichlorobenzene-d4	28.53	152	43074	50.00 ug/L	-0.04

System Monitoring Compounds					%Recovery
2) 1,2-Dichloroethane-d4	12.57	102	2884	48.25 ugL	96.49%
3) Dibromofluoromethane	11.33	113	71031	50.57 ug/L	101.15%
32) Toluene-d8	18.13	98	255027	49.74 ug/L	99.48%
46) 4-Bromofluorobenzene	26.30	95	46928	53.32 ug/L	106.64%

Target Compounds				Qvalue
4) Dichlorodifluoromethane	0.00	85	Not Detected	
5) Chloromethane	0.00	49	Not Detected	
6) Vinyl Chloride	0.00	62	Not Detected	
7) Bromomethane	0.00	94	Not Detected	
8) Chloroethane	0.00	49	Not Detected	
9) Trichlorofluoromethane	0.00	101	Not Detected	
10) 1,1-Dichloroethene	0.00	96	Not Detected	
11) Methylene Chloride	0.00	84	Not Detected	
12) t-1,2-Dichloroethene	0.00	96	Not Detected	
13) 1,1-Dichloroethane	0.00	63	Not Detected	
14) 2,2-Dichloropropane	0.00	77	Not Detected	
15) c-1,2-Dichloroethene	0.00	61	Not Detected	
16) Chloroform	0.00	83	Not Detected	
17) Bromochloromethane	0.00	49	Not Detected	
18) 1,1,1-Trichloroethane	0.00	97	Not Detected	
19) Carbon Tetrachloride	0.00	117	Not Detected	
20) 1,1-Dichloropropene	0.00	75	Not Detected	
21) Benzene	0.00	78	Not Detected	
22) 1,2-Dichloroethane	0.00	62	Not Detected	
23) Trichloroethene	0.00	95	Not Detected	
24) 1,2-Dichloropropane	0.00	63	Not Detected	
25) Bromodichloromethane	0.00	83	Not Detected	
26) Dibromomethane	0.00	93	Not Detected	
27) c-1,3-Dichloropropene	0.00	75	Not Detected	
28) Toluene	0.00	92	Not Detected	
29) t-1,3-Dichloropropene	0.00	75	Not Detected	
30) 1,1,2-Trichloroethane	0.00	83	Not Detected	
33) Tetrachloroethene	0.00	166	Not Detected	
34) 1,3-Dichloropropane	0.00	76	Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BT88951.D
Acq Time : Sep 5, 2003 20:28:07.65
Sample : HER-MW10-082803
Misc :
Quant Time: Sep 12 11:12 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
35)	Dibromochloromethane	0.00	129		Not Detected	
36)	1,2-Dibromoethane	0.00	107		Not Detected	
37)	Chlorobenzene	0.00	112		Not Detected	
38)	1,1,1,2-Tetrachloroethane	0.00	131		Not Detected	
39)	Ethylbenzene	0.00	106		Not Detected	
40)	p,m-Xylene	0.00	106		Not Detected	
41)	o-Xylene	0.00	106		Not Detected	
42)	Styrene	0.00	104		Not Detected	
43)	Bromoform	25.75	173	397	1.55 ug/L m	28
44)	Isopropylbenzene	0.00	105		Not Detected	
47)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
48)	Bromobenzene	0.00	156		Not Detected	
49)	1,2,3-Trichloropropane	0.00	75		Not Detected	
50)	n-Propylbenzene	0.00	91		Not Detected	
51)	2-Chlorotoluene	0.00	91		Not Detected	
52)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
53)	4-Chlorotoluene	0.00	91		Not Detected	
54)	t-Butylbenzene	0.00	119		Not Detected	
55)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
56)	sec-Butylbenzene	0.00	105		Not Detected	
57)	p-Isopropyltoluene	0.00	119		Not Detected	
58)	1,3-Dichlorobenzene	0.00	146		Not Detected	
59)	1,4-Dichlorobenzene	0.00	146		Not Detected	
60)	n-Butylbenzene	0.00	91		Not Detected	
61)	1,2-Dichlorobenzene	0.00	146		Not Detected	
62)	1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
63)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
64)	Hexachlorobutadiene	0.00	225		Not Detected	
65)	Naphthalene	0.00	128		Not Detected	
66)	1,2,3-Trichlorobenzene	0.00	180		Not Detected	

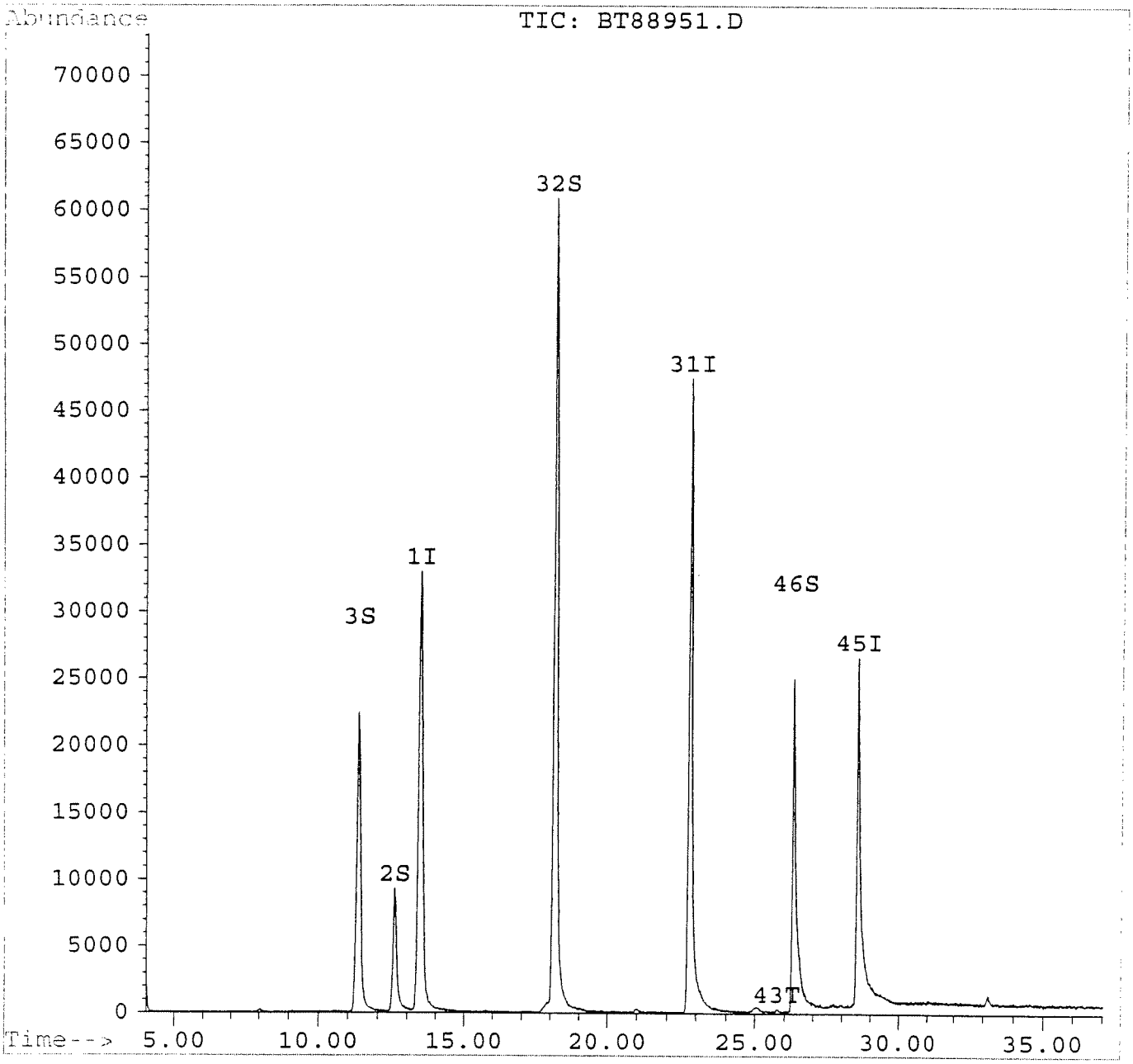
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BT88951.D
Acq Time : Sep 5, 2003 20:28:07.65
Sample : HER-MW10-082803
Misc :
Quant Time: Sep 12 11:12 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration



Quantitation Report

Data File : D:\MSCONV\BT88954.D
Acq Time : Sep 7, 2003 14:29:15.71 Operator:
Sample : HER-MW04-082803 Inst :
Misc : Multiplr: 1.00
Quant Time: Sep 12 11:18 19103

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	13.33	96	150559	50.00 ug/L	-0.24
31) Chlorobenzene-d5	22.67	117	131023	50.00 ug/L	-0.33
45) 1,4-Dichlorobenzene-d4	28.48	152	40856	50.00 ug/L	-0.09
System Monitoring Compounds					%Recovery
2) 1,2-Dichloroethane-d4	12.50	102	2988	52.22 ugL	104.44%
3) Dibromofluoromethane	11.28	113	65511	48.73 ug/L	97.46%
32) Toluene-d8	18.02	98	241396	50.15 ug/L	100.30%
46) 4-Bromofluorobenzene	26.22	95	44963	53.86 ug/L	107.72%
Target Compounds					Qvalue
4) Dichlorodifluoromethane	0.00	85		Not Detected	
5) Chloromethane	0.00	49		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) Bromomethane	0.00	94		Not Detected	
8) Chloroethane	0.00	49		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
11) Methylene Chloride	0.00	84		Not Detected	
12) t-1,2-Dichloroethene	0.00	96		Not Detected	
13) 1,1-Dichloroethane	0.00	63		Not Detected	
14) 2,2-Dichloropropane	0.00	77		Not Detected	
15) c-1,2-Dichloroethene	0.00	61		Not Detected	
16) Chloroform	0.00	83		Not Detected	
17) Bromochloromethane	0.00	49		Not Detected	
18) 1,1,1-Trichloroethane	0.00	97		Not Detected	
19) Carbon Tetrachloride	0.00	117		Not Detected	
20) 1,1-Dichloropropene	0.00	75		Not Detected	
21) Benzene	0.00	78		Not Detected	
22) 1,2-Dichloroethane	0.00	62		Not Detected	
23) Trichloroethene	0.00	95		Not Detected	
24) 1,2-Dichloropropane	0.00	63		Not Detected	
25) Bromodichloromethane	0.00	83		Not Detected	
26) Dibromomethane	0.00	93		Not Detected	
27) c-1,3-Dichloropropene	0.00	75		Not Detected	
28) Toluene	0.00	92		Not Detected	
29) t-1,3-Dichloropropene	0.00	75		Not Detected	
30) 1,1,2-Trichloroethane	0.00	83		Not Detected	
33) Tetrachloroethene	0.00	166		Not Detected	
34) 1,3-Dichloropropane	0.00	76		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BT88954.D
Acq Time : Sep 7, 2003 14:29:15.71
Sample : HER-MW04-082803
Misc :
Quant Time: Sep 12 11:18 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
35)	Dibromochloromethane	0.00	129		Not Detected	
36)	1,2-Dibromoethane	0.00	107		Not Detected	
37)	Chlorobenzene	0.00	112		Not Detected	
38)	1,1,1,2-Tetrachloroethane	0.00	131		Not Detected	
39)	Ethylbenzene	0.00	106		Not Detected	
40)	p,m-Xylene	0.00	106		Not Detected	
41)	o-Xylene	0.00	106		Not Detected	
42)	Styrene	0.00	104		Not Detected	
43)	Bromoform	0.00	173		Not Detected	
44)	Isopropylbenzene	0.00	105		Not Detected	
47)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
48)	Bromobenzene	0.00	156		Not Detected	
49)	1,2,3-Trichloropropane	0.00	75		Not Detected	
50)	n-Propylbenzene	0.00	91		Not Detected	
51)	2-Chlorotoluene	0.00	91		Not Detected	
52)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
53)	4-Chlorotoluene	0.00	91		Not Detected	
54)	t-Butylbenzene	0.00	119		Not Detected	
55)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
56)	sec-Butylbenzene	0.00	105		Not Detected	
57)	p-Isopropyltoluene	0.00	119		Not Detected	
58)	1,3-Dichlorobenzene	0.00	146		Not Detected	
59)	1,4-Dichlorobenzene	0.00	146		Not Detected	
60)	n-Butylbenzene	0.00	91		Not Detected	
61)	1,2-Dichlorobenzene	0.00	146		Not Detected	
62)	1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
63)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
64)	Hexachlorobutadiene	0.00	225		Not Detected	
65)	Naphthalene	0.00	128		Not Detected	
66)	1,2,3-Trichlorobenzene	0.00	180		Not Detected	

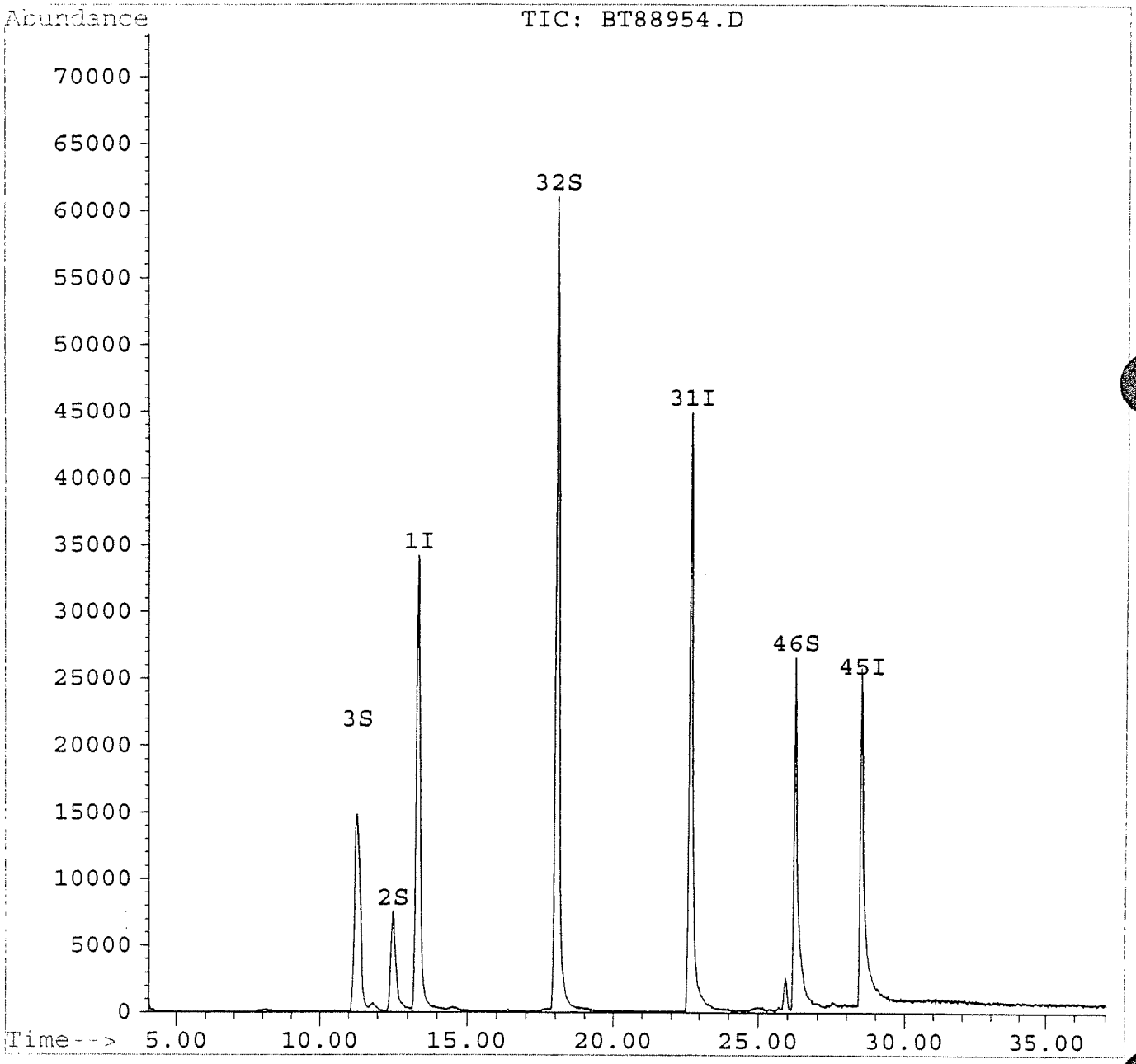
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BT88954.D
Acq Time : Sep 7, 2003 14:29:15.71
Sample : HER-MW04-082803
Misc :
Quant Time: Sep 12 11:18 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration



Quantitation Report

Data File : D:\MSCONV\BT88955.D
Acq Time : Sep 7, 2003 15:10:55.91
Sample : HER-MW11-082803
Misc :
Quant Time: Sep 12 11:19 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	13.32	96	146736	50.00 ug/L	-0.26
31) Chlorobenzene-d5	22.65	117	129695	50.00 ug/L	-0.35
45) 1,4-Dichlorobenzene-d4	28.45	152	43915	50.00 ug/L	-0.12

System Monitoring Compounds					%Recovery
2) 1,2-Dichloroethane-d4	12.45	102	2848	51.07 ugL	102.14%
3) Dibromofluoromethane	11.27	113	65999	50.37 ug/L	100.74%
32) Toluene-d8	18.00	98	250394	52.55 ug/L	105.11%
46) 4-Bromofluorobenzene	26.20	95	49232	54.87 ug/L	109.73%

Target Compounds				Qvalue
4) Dichlorodifluoromethane	0.00	85	Not Detected	
5) Chloromethane	0.00	49	Not Detected	
6) Vinyl Chloride	0.00	62	Not Detected	
7) Bromomethane	0.00	94	Not Detected	
8) Chloroethane	0.00	49	Not Detected	
9) Trichlorofluoromethane	0.00	101	Not Detected	
10) 1,1-Dichloroethene	0.00	96	Not Detected	
11) Methylene Chloride	0.00	84	Not Detected	
12) t-1,2-Dichloroethene	0.00	96	Not Detected	
13) 1,1-Dichloroethane	0.00	63	Not Detected	
14) 2,2-Dichloropropane	0.00	77	Not Detected	
15) c-1,2-Dichloroethene	0.00	61	Not Detected	
16) Chloroform	0.00	83	Not Detected	
17) Bromochloromethane	0.00	49	Not Detected	
18) 1,1,1-Trichloroethane	0.00	97	Not Detected	
19) Carbon Tetrachloride	0.00	117	Not Detected	
20) 1,1-Dichloropropene	0.00	75	Not Detected	
21) Benzene	0.00	78	Not Detected	
22) 1,2-Dichloroethane	0.00	62	Not Detected	
23) Trichloroethene	0.00	95	Not Detected	
24) 1,2-Dichloropropane	0.00	63	Not Detected	
25) Bromodichloromethane	0.00	83	Not Detected	
26) Dibromomethane	0.00	93	Not Detected	
27) c-1,3-Dichloropropene	0.00	75	Not Detected	
28) Toluene	0.00	92	Not Detected	
29) t-1,3-Dichloropropene	0.00	75	Not Detected	
30) 1,1,2-Trichloroethane	0.00	83	Not Detected	
33) Tetrachloroethene	0.00	166	Not Detected	
34) 1,3-Dichloropropane	0.00	76	Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BT88955.D
Acq Time : Sep 7, 2003 15:10:55.91
Sample : HER-MW11-082803
Misc :
Quant Time: Sep 12 11:19 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
35) Dibromochloromethane	0.00	129		Not Detected	
36) 1,2-Dibromoethane	0.00	107		Not Detected	
37) Chlorobenzene	0.00	112		Not Detected	
38) 1,1,1,2-Tetrachloroethane	0.00	131		Not Detected	
39) Ethylbenzene	0.00	106		Not Detected	
40) p,m-Xylene	0.00	106		Not Detected	
41) o-Xylene	0.00	106		Not Detected	
42) Styrene	0.00	104		Not Detected	
43) Bromoform	0.00	173		Not Detected	
44) Isopropylbenzene	0.00	105		Not Detected	
47) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
48) Bromobenzene	0.00	156		Not Detected	
49) 1,2,3-Trichloropropane	0.00	75		Not Detected	
50) n-Propylbenzene	0.00	91		Not Detected	
51) 2-Chlorotoluene	0.00	91		Not Detected	
52) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
53) 4-Chlorotoluene	0.00	91		Not Detected	
54) t-Butylbenzene	0.00	119		Not Detected	
55) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
56) sec-Butylbenzene	0.00	105		Not Detected	
57) p-Isopropyltoluene	0.00	119		Not Detected	
58) 1,3-Dichlorobenzene	0.00	146		Not Detected	
59) 1,4-Dichlorobenzene	0.00	146		Not Detected	
60) n-Butylbenzene	0.00	91		Not Detected	
61) 1,2-Dichlorobenzene	0.00	146		Not Detected	
62) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
63) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
64) Hexachlorobutadiene	0.00	225		Not Detected	
65) Naphthalene	0.00	128		Not Detected	
66) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

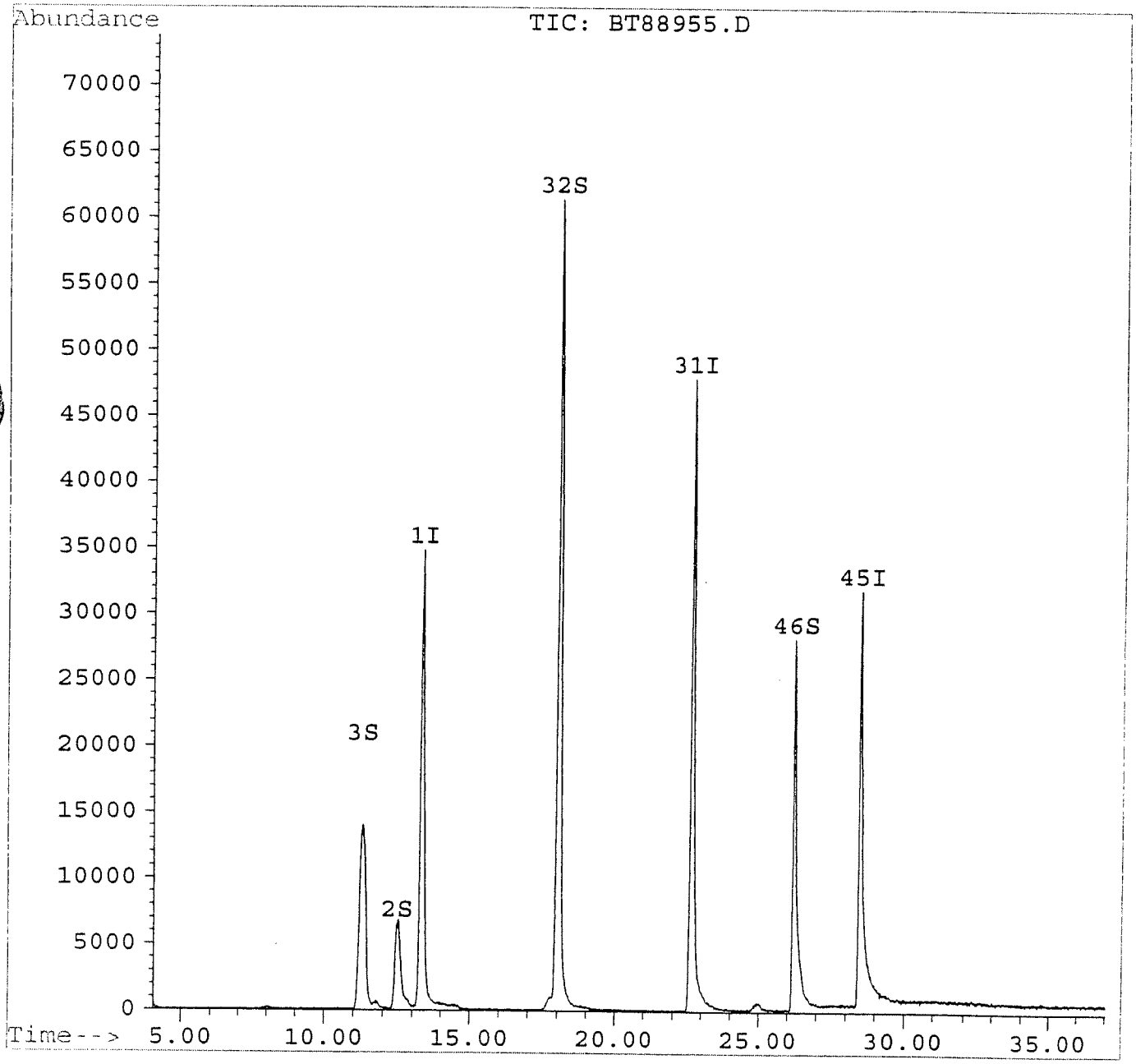
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BT88955.D
Acq Time : Sep 7, 2003 15:10:55.91
Sample : HER-MW11-082803
Misc :
Quant Time: Sep 12 11:19 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration



Quantitation Report

Data File : D:\MSCONV\BT88956.D
Acq Time : Sep 7, 2003 15:52:37.11
Sample : HER-BD03
Misc :
Quant Time: Sep 12 11:21 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	13.32	96	150022	50.00 ug/L	-0.26
31) Chlorobenzene-d5	22.63	117	127849	50.00 ug/L	-0.37
45) 1,4-Dichlorobenzene-d4	28.47	152	41928	50.00 ug/L	-0.10
System Monitoring Compounds					%Recovery
2) 1,2-Dichloroethane-d4	12.53	102	3001	52.64 ugL	105.27%
3) Dibromofluoromethane	11.32	113	65782	49.11 ug/L	98.21%
32) Toluene-d8	17.98	98	245176	52.20 ug/L	104.40%
46) 4-Bromofluorobenzene	26.22	95	47490	55.43 ug/L	110.86%
Target Compounds					Qvalue
4) Dichlorodifluoromethane	0.00	85		Not Detected	
5) Chloromethane	0.00	49		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) Bromomethane	0.00	94		Not Detected	
8) Chloroethane	0.00	49		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
11) Methylene Chloride	0.00	84		Not Detected	
12) t-1,2-Dichloroethene	0.00	96		Not Detected	
13) 1,1-Dichloroethane	0.00	63		Not Detected	
14) 2,2-Dichloropropane	0.00	77		Not Detected	
15) c-1,2-Dichloroethene	0.00	61		Not Detected	
16) Chloroform	0.00	83		Not Detected	
17) Bromochloromethane	0.00	49		Not Detected	
18) 1,1,1-Trichloroethane	0.00	97		Not Detected	
19) Carbon Tetrachloride	0.00	117		Not Detected	
20) 1,1-Dichloropropene	0.00	75		Not Detected	
21) Benzene	0.00	78		Not Detected	
22) 1,2-Dichloroethane	0.00	62		Not Detected	
23) Trichloroethene	0.00	95		Not Detected	
24) 1,2-Dichloropropane	0.00	63		Not Detected	
25) Bromodichloromethane	0.00	83		Not Detected	
26) Dibromomethane	0.00	93		Not Detected	
27) c-1,3-Dichloropropene	0.00	75		Not Detected	
28) Toluene	0.00	92		Not Detected	
29) t-1,3-Dichloropropene	0.00	75		Not Detected	
30) 1,1,2-Trichloroethane	0.00	83		Not Detected	
33) Tetrachloroethene	0.00	166		Not Detected	
34) 1,3-Dichloropropane	0.00	76		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BT88956.D
Acq Time : Sep 7, 2003 15:52:37.11
Sample : HER-BD03
Misc :
Quant Time: Sep 12 11:21 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
35)	Dibromochloromethane	0.00	129		Not Detected	
36)	1,2-Dibromoethane	0.00	107		Not Detected	
37)	Chlorobenzene	0.00	112		Not Detected	
38)	1,1,1,2-Tetrachloroethane	0.00	131		Not Detected	
39)	Ethylbenzene	0.00	106		Not Detected	
40)	p,m-Xylene	0.00	106		Not Detected	
41)	o-Xylene	0.00	106		Not Detected	
42)	Styrene	0.00	104		Not Detected	
43)	Bromoform	0.00	173		Not Detected	
44)	Isopropylbenzene	0.00	105		Not Detected	
47)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
48)	Bromobenzene	0.00	156		Not Detected	
49)	1,2,3-Trichloropropane	0.00	75		Not Detected	
50)	n-Propylbenzene	0.00	91		Not Detected	
51)	2-Chlorotoluene	0.00	91		Not Detected	
52)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
53)	4-Chlorotoluene	0.00	91		Not Detected	
54)	t-Butylbenzene	0.00	119		Not Detected	
55)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
56)	sec-Butylbenzene	0.00	105		Not Detected	
57)	p-Isopropyltoluene	0.00	119		Not Detected	
58)	1,3-Dichlorobenzene	0.00	146		Not Detected	
59)	1,4-Dichlorobenzene	0.00	146		Not Detected	
60)	n-Butylbenzene	0.00	91		Not Detected	
61)	1,2-Dichlorobenzene	0.00	146		Not Detected	
62)	1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
63)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
64)	Hexachlorobutadiene	0.00	225		Not Detected	
65)	Naphthalene	0.00	128		Not Detected	
66)	1,2,3-Trichlorobenzene	0.00	180		Not Detected	

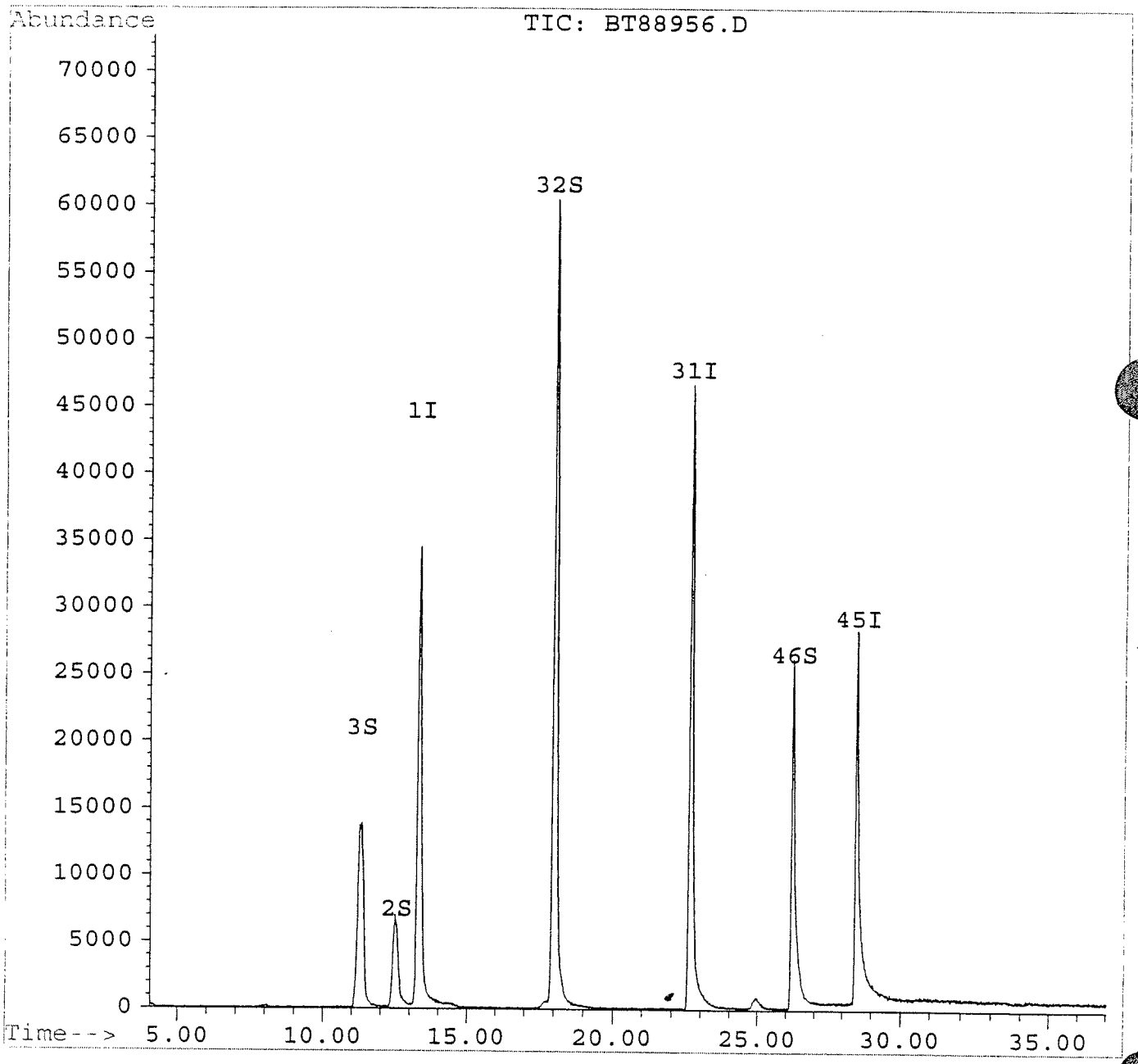
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\MSCONV\BT88956.D
Acq Time : Sep 7, 2003 15:52:37.11
Sample : HER-BD03
Misc :
Quant Time: Sep 12 11:21 19103

Operator:
Inst :
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\01CURVES\090503.M
Title : 5-Point Calibration for Method 8260B
Last Update : Mon Sep 08 11:53:11 2003
Response via : Multiple Level Calibration



APPENDIX A

APPENDIX A

GEOPHYSICAL SURVEY DATA

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
0			
0	0	82.184	29.123
0	10	77.88	29.23
0	20	71.9	26.819
0	30	68.298	22.519
0	40	62.012	18.052
0	50	56.762	15.682
0	60	59.204	13.953
0	70	57.068	11.186
0	80	55.024	10.605
0	90	49.866	12.257
0	100	46.448	11.234
0	110	43.58	7.627
0	120	43.884	5.872
0	130	42.266	4.883
0	140	43.914	3.662
0	150	42.724	3.452
0	160	44.952	2.903
0	170	46.57	2.124
0	180	43.64	1.267
0	190	43.518	0.356
0	200	44.098	1.306
0	210	41.076	2.414
0	220	37.446	2.386
0	230	36.53	0.288
0	240	32.166	0.259
0	250	22.186	-1.955
0	260	12.238	-3.706
0	270	23.986	-1.611
0	280	29.816	-0.297
0	290	26.336	0.222
0	300	28.412	-0.376
0	310	28.106	-0.575
0	320	24.048	-0.562
0	330	31.678	-0.257
0	340	32.104	-0.229
0	350	29.876	0.08
0	360	28.87	0.139
0	370	28.778	0.128
0	380	27.68	0.284
0	390	25.91	1.251
0	400	29.266	1.458
0	410	29.144	1.027
0	420	25.36	-1.833
0	430	28.168	-1.962
0	440	33.722	1.631
0	450	39.916	2.882
0	460	52.338	4.108
0	470	59.296	9.74
0	480	56.336	7.836
0	490	40.192	1.148

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
0	500	52.674	2.809
0	510	47.028	1.153
0	520	42.878	1.019
0	530	38.544	0.486
0	540	38.024	0.65
0	550	40.04	0.516
0	560	40.68	0.31
0	570	41.046	0.238
0	580	62.256	13.547
10			
10	570	22.674	-1.714
10	560	59.144	0.262
10	550	60.364	0.588
10	540	52.674	0.433
10	530	46.692	0.255
10	520	44.312	0.275
10	510	44.616	1.425
10	500	48.736	2.372
10	490	49.012	1.501
10	480	41.23	0.279
10	470	59.754	3.981
10	460	56.03	4.654
10	450	41.382	4.656
10	440	34.028	2.956
10	430	31.494	1.649
10	420	29.144	1.756
10	410	28.046	1.03
10	400	26.734	0.918
10	390	26.246	0.676
10	380	26.55	0.398
10	370	27.374	0.251
10	360	27.894	0.371
10	350	28.778	0.099
10	340	29.724	0.005
10	330	29.694	-0.001
10	320	25.696	0.157
10	310	26.58	-0.192
10	300	28.472	-0.521
10	290	33.906	0.712
10	280	15.32	-1.94
10	270	20.294	-2.063
10	260	28.26	0.913
10	250	30.762	0.086
10	240	33.906	0.389
10	230	35.462	2.023
10	220	36.5	3.906
10	210	39.46	3.636
10	200	44.464	2.557
10	190	45.472	2.083
10	180	45.228	3.261
10	170	45.99	4.45

TERRAIN CONDUCTIVITY DATA

FORMER LANDFILL AREA

Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
10	160	44.006	4.562
10	150	44.25	4.266
10	140	42.786	4.261
10	130	42.084	5.018
10	120	41.962	6.552
10	110	44.526	8.549
10	100	47.242	12.906
10	90	51.116	15.938
10	80	53.71	14.83
10	70	55.97	14.666
10	60	56.03	16.25
10	50	53.558	17.802
10	40	56.916	19.059
10	30	61.798	22.567
10	20	63.11	24.375
10	10	70.282	23.594
10	0	77.424	27.466
20			
20	0	67.75	28.09
20	10	70.344	22.861
20	20	58.136	24.162
20	30	57.282	26.567
20	40	51.24	22.361
20	50	50.842	22.216
20	60	52.918	21.577
20	70	52.216	19.469
20	80	51.208	19.307
20	90	51.3	17.619
20	100	49.224	13.613
20	110	45.35	9.881
20	120	42.878	8.066
20	130	42.206	6.697
20	140	40.954	4.849
20	150	41.412	4.804
20	160	43.06	4.913
20	170	45.166	5.745
20	180	47.21	6.252
20	190	48.34	6.387
20	200	46.966	6.342
20	210	42.114	6.385
20	220	37.568	4.608
20	230	22.858	-0.077
20	240	10.62	-20.07
20	250	32.288	0.323
20	260	32.166	0.282
20	270	30.304	0.251
20	280	30.152	0.793
20	290	21.454	-2.164
20	300	13.642	-4.45
20	310	17.272	-2.283
20	320	37.322	1.221

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
20	330	32.44	0.251
20	340	29.45	0.319
20	350	27.466	0.31
20	360	28.138	0.099
20	370	27.802	0.167
20	380	26.672	0.775
20	390	27.77	0.931
20	400	28.138	1.153
20	410	29.174	1.504
20	420	30.884	1.96
20	430	34.394	3.013
20	440	40.68	3.805
20	450	44.952	4.007
20	460	31.646	-0.497
20	470	35.4	-1.787
20	480	53.1	8.103
20	490	57.496	3.744
20	500	60.242	1.819
20	510	61.524	0.459
20	520	29.296	-1.554
20	530	22.4	-11.16
20	540	52.276	-11.101
20	550	38.238	-1.888
20	560	52.308	0.203
20	570	48.462	1.152
30			
30	560	35.4	-0.808
30	550	38.27	-0.172
30	540	41.168	0.455
30	530	46.418	1.052
30	520	49.804	1.288
30	510	34.454	-2.34
30	500	33.386	-1.929
30	490	40.13	1.657
30	480	38.604	1.811
30	470	28.718	0.213
30	460	17.304	-2.436
30	450	17.608	-2.326
30	440	49.744	5.692
30	430	41.932	4.062
30	420	35.858	2.335
30	410	33.05	1.703
30	400	32.562	1.357
30	390	32.258	2.23
30	380	33.386	1.091
30	370	34.912	1.615
30	360	35.706	1.321
30	350	25.848	-0.986
30	340	13.702	-2.475
30	330	28.534	-0.277
30	320	18.83	-2.272

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
30	310	34.088	-0.003
30	300	33.386	0.15
30	290	32.99	-0.135
30	280	31.524	-0.15
30	270	33.478	0.705
30	260	29.632	0.145
30	250	28.594	0.314
30	240	30.488	0.349
30	230	35.522	1.289
30	220	36.804	2.837
30	210	39.612	5.631
30	200	52.368	10.251
30	190	49.378	9.712
30	180	49.134	7.61
30	170	46.752	5.909
30	160	43.488	5.541
30	150	41.962	5.668
30	140	40.954	6.517
30	130	42.358	9.249
30	120	43.884	10.286
30	110	48.432	11.921
30	100	49.072	15.62
30	90	50.232	19.372
30	80	50.292	22.185
30	70	51.728	25.525
30	60	52.612	29.531
30	50	51.3	28.877
30	40	50.598	27.291
30	30	54.26	26.444
30	20	59.876	22.192
30	10	68.238	25.656
30	0	71.38	28.219
40			
40	0	64.576	32.471
40	10	65.522	26.367
40	20	57.006	21.656
40	30	50.69	23.699
40	40	50.75	25.518
40	50	53.68	32.368
40	60	47.272	32.768
40	70	47.912	29.999
40	80	49.072	25.665
40	90	49.622	21.49
40	100	49.926	17.725
40	110	48.37	14.495
40	120	44.006	13.53
40	130	42.602	11.504
40	140	44.158	9.049
40	150	45.594	7.006
40	160	44.952	5.795
40	170	47.668	5.769

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
40	180	47.332	6.205
40	190	43.824	7.379
40	200	48.37	6.91
40	210	46.508	5.975
40	220	37.568	3.456
40	230	32.136	0.916
40	240	29.296	0.227
40	250	26.336	1.036
40	260	27.588	0.731
40	270	28.534	0.492
40	280	30.67	0.068
40	290	32.38	0.385
40	300	32.624	0.226
40	310	35.43	0.202
40	320	31.83	0.413
40	330	33.6	0.483
40	340	35.614	1.052
40	350	33.752	0.694
40	360	23.956	-1.523
40	370	15.594	-3.608
40	380	15.534	-1.885
40	390	19.5	-0.446
40	400	20.966	0.641
40	410	22.186	0.878
40	420	22.95	0.712
40	430	19.958	-0.863
40	440	11.84	-3.272
40	450	27.008	1.295
40	460	46.142	5.85
40	470	46.63	4.542
40	480	41.076	4.198
40	490	43.732	2.324
40	500	39.246	1.069
40	510	39.154	0.113
40	520	37.658	0.551
40	530	35.462	0.42
40	540	33.294	0.332
40	550	32.104	0.191
40	560	29.724	0.027
50			
50	560	29.664	-1.299
50	550	32.074	0.066
50	540	33.844	0.135
50	530	39.338	0.121
50	520	42.236	0.617
50	510	42.114	0.731
50	500	42.908	0.995
50	490	46.356	1.793
50	480	49.652	2.41
50	470	45.562	1.067
50	460	63.08	5.221

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
50	450	71.228	7.801
50	440	41.474	-0.483
50	430	35.492	-1.028
50	420	55.236	5.727
50	410	47.088	4.273
50	400	43.67	2.949
50	390	40.528	1.899
50	380	35.186	0.685
50	370	36.164	0.843
50	360	36.224	0.828
50	350	34.638	0.751
50	340	34.454	0.534
50	330	36.682	0.51
50	320	33.112	0.554
50	310	31.342	0.214
50	300	28.382	0.049
50	290	28.626	0.486
50	280	25.94	0.373
50	270	24.628	0.088
50	260	25.97	0.839
50	250	25.726	0.924
50	240	27.862	0.501
50	230	30.09	1.067
50	220	34.606	1.969
50	210	38.33	3.685
50	200	41.412	5.001
50	190	44.098	6.337
50	180	45.044	6.82
50	170	47.944	6.91
50	160	49.072	7.401
50	150	45.624	8.667
50	140	43.976	11.923
50	130	41.382	13.863
50	120	46.936	14.523
50	110	48.92	17.125
50	100	46.478	20.493
50	90	44.586	23.918
50	80	43.61	26.617
50	70	42.724	28.7
50	60	49.072	31.905
50	50	45.594	28.588
50	40	46.814	22.85
50	30	55.236	21.861
50	20	59.784	21.968
50	10	64.362	25.43
50	0	70.984	29.683
50	-10	58.898	31.874
60			
60	0	78.308	26.786
60	10	63.05	23.502
60	20	62.592	19.142

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
60	30	60.364	18.403
60	40	53.04	23.508
60	50	46.448	23.815
60	60	55.328	29.04
60	70	52.52	26.211
60	80	41.962	25.127
60	90	40.68	22.936
60	100	45.868	19.927
60	110	51.85	17.79
60	120	49.988	15.09
60	130	42.51	12.182
60	140	43.334	11.024
60	150	46.814	8.749
60	160	48.798	6.883
60	170	45.654	5.964
60	180	42.816	5.501
60	190	35.156	1.718
60	200	37.994	3.184
60	210	36.072	1.872
60	220	32.714	0.988
60	230	2.288	-5.144
60	240	8.82	-6.82
60	250	14.892	-4.665
60	260	20.904	-2.081
60	270	22.064	-0.652
60	280	23.59	-0.532
60	290	29.542	2.668
60	300	27.192	0.288
60	310	28.412	-0.259
60	320	28.748	-0.198
60	330	32.624	0.565
60	340	37.232	0.788
60	350	38.514	0.468
60	360	40.252	0.924
60	370	40.1	1.03
60	380	40.284	1.168
60	390	41.138	1.622
60	400	41.932	1.523
60	410	50.506	-0.029
60	420	43.884	0.795
60	430	40.802	-1.288
60	440	63.63	5.108
60	450	58.868	4.108
60	460	57.25	2.19
60	470	43.366	0.828
60	480	50.598	0.764
60	490	48.554	0.477
60	500	44.83	0.159
60	510	42.328	-0.027
60	520	41.718	-0.255
60	530	41.26	-0.124

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
60	540	34.82	-0.448
60	550	31.066	-0.461
60	560	29.022	-1.058
70			
70	560	29.938	-1.4
70	550	30.822	-0.589
70	540	35.034	-1.052
70	530	44.006	-0.667
70	520	38.392	-1.043
70	510	44.404	-0.646
70	500	49.286	0.235
70	490	48.066	0.091
70	480	56.396	0.711
70	470	57.128	0.558
70	460	53.436	1.578
70	450	56.182	2.66
70	440	60.914	4.246
70	430	60.792	3.768
70	420	44.006	-0.17
70	410	55.146	1.813
70	400	54.168	4.095
70	390	49.958	2.916
70	380	45.44	2.934
70	370	44.342	2.844
70	360	42.664	2.616
70	350	42.358	3.548
70	340	40.588	4.15
70	330	36.622	3.193
70	320	31.616	2.131
70	310	29.48	2.765
70	300	33.508	6.785
70	290	37.354	9.187
70	280	33.264	6.249
70	270	30.914	4.619
70	260	11.81	-8.391
70	250	0.64	-15.147
70	240	5.89	-12.863
70	230	22.522	0.571
70	220	13.184	-1.308
70	210	30.212	1.655
70	200	34.15	4.795
70	190	32.288	1.107
70	180	37.292	1.519
70	170	41.382	0.547
70	160	50.324	8.371
70	150	47.944	10.343
70	140	45.776	11.844
70	130	47.454	13.865
70	120	51.574	19.385
70	110	45.776	17.718
70	100	43.488	18.995

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
70	90	38.238	24.807
70	80	40.558	28.173
70	70	36.53	21.242
70	60	50.782	23.647
70	50	52.52	25.514
70	40	50.872	16.722
70	30	41.534	22.132
70	20	64.972	4.189
70	10	69	25.689
70	0	66.468	28.092
70	-10	63.202	28.805
80			
80	0	69.092	26.993
80	10	70.832	16.254
80	20	51.392	14.934
80	30	58.228	6.037
80	40	56.396	21.082
80	50	61.28	25.112
80	60	55.664	28.61
80	70	31.464	12.274
80	80	42.054	30.795
80	90	41.932	29.994
80	100	41.778	21.639
80	110	48.89	14.168
80	120	45.196	18.097
80	130	56.824	16.099
80	140	60.914	13.929
80	150	56.702	11.631
80	160	44.738	5.034
80	170	37.658	5.005
80	180	36.5	1.923
80	190	32.928	0.464
80	200	28.168	-1.021
80	210	14.862	-0.83
80	220	28.808	3.483
80	230	26	-1.543
80	240	28.504	0.424
80	250	17.762	0.518
80	260	17.272	-2.138
80	270	25.604	9.977
80	280	37.628	15.75
80	290	9.918	1.548
80	300	49.53	18.006
80	310	52.674	13.777
80	320	57.922	15.739
80	330	54.81	17.464
80	340	47.852	10.824
80	350	50.75	6.326
80	360	62.896	18.122
80	370	64.208	12.739
80	380	65.278	10.958

TERRAIN CONDUCTIVITY DATA

FORMER LANDFILL AREA

Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
80	390	66.132	6.263
80	400	57.648	1.907
80	410	50.324	-3.055
80	420	49.592	-3.961
80	430	75.562	4.755
80	440	59.356	3.298
80	450	63.63	2.906
80	460	63.354	1.515
80	470	63.202	0.389
80	480	55.604	0
80	490	56.274	0.282
80	500	52.398	-0.255
80	510	48.156	-0.242
80	520	31.586	-0.187
80	530	48.646	-0.479
80	540	38.604	-0.598
80	550	32.348	-0.339
80	560	30.61	-0.448
90			
90	560	32.836	-0.78
90	550	34.668	-0.554
90	540	38.422	-0.707
90	530	45.898	-0.621
90	520	36.896	-0.29
90	510	49.988	-0.034
90	500	59.51	-0.139
90	490	62.134	-0.358
90	480	71.472	-0.701
90	470	58.838	0.343
90	460	63.66	1.119
90	450	69.824	2.537
90	440	66.986	3.505
90	430	80.384	4.341
90	420	81.452	5.014
90	410	79.04	2.743
90	400	87.922	5.051
90	390	99.792	16.509
90	380	97.474	24.542
90	370	106.048	30.681
90	360	92.804	28.89
90	350	97.412	30.641
90	340	19.166	7.171
90	330	26.458	-10.67
90	320	27.74	7.524
90	310	22.278	-5.635
90	300	18.982	2.818
90	290	43.488	11.476
90	280	41.29	15.09
90	270	43.152	9.359
90	260	32.592	6.201
90	250	27.984	2.004

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
90	240	27.466	2.001
90	230	30.364	0.29
90	220	28.076	0.457
90	210	29.846	7.708
90	200	35.736	3.52
90	190	38.848	2.52
90	180	41.442	1.745
90	170	47.912	2.429
90	160	44.434	5.407
90	150	47.638	8.792
90	140	59.54	15.629
90	130	47.364	18.459
90	120	48.798	9.674
90	110	50.904	20.158
90	100	46.63	26.758
90	90	53.04	30.352
90	80	27.862	24.559
90	70	59.57	30.373
90	60	52.674	30.369
90	50	57.77	24.511
90	40	49.012	24.711
90	30	36.622	-14.953
90	20	60.212	13.148
90	10	71.96	24.737
90	0	65.186	24.337
90	-10	70.526	28.961
100			
100	0	67.504	20.985
100	10	73.944	24.337
100	20	75.562	16.294
100	30	29.816	-10.07
100	40	48.706	17.891
100	50	67.259	30.867
100	60	42.572	28.416
100	70	61.34	30.784
100	80	44.86	30.78
100	90	51.362	30.788
100	100	58.686	30.762
100	110	56.916	23.932
100	120	59.754	12.02
100	130	53.832	17.924
100	140	58.442	11.382
100	150	62.104	6.26
100	160	64.606	3.669
100	170	67.932	2.407
100	180	59.326	1.354
100	190	52.734	3.327
100	200	37.964	2.306
100	210	44.312	6.436
100	220	40.558	6.837
100	230	38.086	1.107

TERRAIN CONDUCTIVITY DATA

FORMER LANDFILL AREA

Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
100	240	39.002	1.986
100	250	44.892	1.896
100	260	50.018	6.33
100	270	51.788	9.203
100	280	42.542	8.74
100	290	32.226	-0.227
100	300	45.838	11.05
100	310	57.19	16.898
100	320	47.638	6.034
100	330	33.6	22.007
100	340	46.204	-1.69
100	350	76.354	12.152
100	360	7.72	26.725
100	370	96.772	13.861
100	380	166.504	30.459
100	390	133.912	30.468
100	400	119.874	22.758
100	410	110.474	14.409
100	420	94.39	6.25
100	430	82.49	4.716
100	440	69.854	2.695
100	450	68.818	2.373
100	460	64.27	-2.153
100	470	64.972	0.624
100	480	67.81	-0.387
100	490	56.916	-0.565
100	500	48.98	-0.095
100	510	51.788	0.08
100	520	47.058	-0.082
100	530	47.242	-0.295
100	540	41.564	-0.121
100	550	38.848	-0.185
100	560	35.218	-0.104
110			
110	560	43.792	0.011
110	550	41.992	-0.461
110	540	45.41	-0.745
110	530	51.27	-0.646
110	520	40.832	-0.165
110	510	58.35	-0.415
110	500	58.32	-0.11
110	490	56.64	-1.85
110	480	69.366	-0.597
110	470	68.42	0.203
110	460	76.722	0.817
110	450	64.27	1.082
110	440	79.162	2.157
110	430	90.606	4.036
110	420	94.116	8.224
110	410	122.314	25.759
110	400	153.504	30.933

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
110	390	210.662	30.894
110	380	142.73	30.872
110	370	94.97	30.852
110	360	266.72	30.808
110	350	115.66	16.814
110	340	37.24	1.932
110	330	89.72	-3.309
110	320	73.24	8.277
110	310	68.36	6.563
110	300	52.18	1.427
110	290	40.28	-2.55
110	280	50.36	-2.186
110	270	56.46	9.128
110	260	53.72	9.168
110	250	55.54	5.014
110	240	54.02	8.94
110	230	54.62	5.767
110	220	61.64	15.033
110	210	47	4.72
110	200	39.06	4.154
110	190	49.74	4.391
110	180	86.06	2.28
110	170	105.9	2.544
110	160	102.84	3.617
110	150	73.54	4.058
110	140	58.6	6.28
110	130	52.18	8.582
110	120	56.76	13.839
110	110	61.64	27.896
110	100	58.9	31.071
110	90	59.82	31.062
110	80	55.84	31.058
110	70	32.66	24.509
110	60	65	31.025
110	50	50.96	28.164
110	40	46.7	10.787
110	30	28.38	-15.151
110	20	70.8	21.876
110	10	68.06	23.381
110	0	67.44	17.279
110	-10	61.64	23.539
120			
120	0	61.64	18.694
120	10	65.62	21.959
120	20	62.56	20.691
120	30	58.28	13.06
120	40	54.62	21.781
120	50	51.26	22.778
120	60	51.58	27.488
120	70	59.5	27.576
120	80	55.54	31.69

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
120	90	65.62	31.666
120	100	60.72	31.642
120	110	45.48	24.438
120	120	47.92	11.291
120	130	55.24	6.783
120	140	66.84	5.098
120	150	115.96	5.574
120	160	143.44	6.183
120	170	108.34	3.575
120	180	136.1	4.911
120	190	42.12	7.97
120	200	36.02	-23.252
120	210	7.94	-8.549
120	220	54.32	10.798
120	230	50.36	7.261
120	240	75.98	21.29
120	250	74.759	10.179
120	260	59.82	5.617
120	270	65.62	10.554
120	280	63.48	9.029
120	290	58.9	8.121
120	300	53.4	-5.477
120	310	55.54	1.512
120	320	75.68	12.656
120	330	67.74	8.446
120	340	112	17.7
120	350	163.88	-6.249
120	360	146.18	31.19
120	370	157.48	31.205
120	380	179.74	31.175
120	390	130.92	31.192
120	400	209.66	31.159
120	410	128.48	31.179
120	420	96.74	13.734
120	430	89.42	5.324
120	440	80.26	2.361
120	450	66.22	1.238
120	460	69.28	1.049
120	470	69.88	-0.126
120	480	65	0.641
120	490	68.36	-0.033
120	500	56.76	-6.272
120	510	58.9	-5.648
120	520	45.78	0.194
120	530	62.26	-0.141
120	540	53.72	-0.064
120	550	50.36	-0.174
120	560	56.46	0.521
130			
130	560	68.96	1.293
130	550	59.82	-0.084

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
130	540	52.8	-0.479
130	530	67.14	-0.016
130	520	59.2	-0.295
130	510	53.1	0.679
130	500	68.66	0.428
130	490	72.64	0.305
130	480	62.86	0.227
130	470	68.06	0.595
130	460	66.84	1.455
130	450	68.96	1.172
130	440	75.68	2.475
130	430	82.7	5.773
130	420	101.92	17.068
130	410	150.76	31.438
130	400	165.4	31.425
130	390	157.16	31.412
130	380	167.24	31.365
130	370	138.86	31.379
130	360	-12.2	31.376
130	350	86.98	31.363
130	340	123.6	13.911
130	330	91.24	15.311
130	320	108.94	13.236
130	310	67.14	4.867
130	300	73.24	-1.106
130	290	72.94	16.075
130	280	57.98	-4.003
130	270	60.72	0.306
130	260	69.28	10.365
130	250	98.26	14.734
130	240	98.26	17.406
130	230	65.62	9.857
130	220	49.44	-2.322
130	210	-6.72	-23.019
130	200	-3.36	-23.015
130	190	-1.84	-14.842
130	180	57.38	8.841
130	170	83.92	4.698
130	160	141	5.396
130	150	94.899	6.383
130	140	61.96	6.048
130	130	49.14	7.594
130	120	45.16	10.546
130	110	39.06	17.336
130	100	47.92	23.511
130	90	57.06	28.868
130	80	54.32	30.815
130	70	54.32	15.631
130	60	40.9	18.644
130	50	51.26	15.864
130	40	60.12	25

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
130	30	57.68	20.129
130	20	50.96	16.02
130	10	62.86	23.875
130	0	59.5	24.722
130	-10	58.6	23.19
140			
140	0	61.96	24.921
140	10	61.96	19.065
140	20	52.8	16.336
140	30	58.28	25.2
140	40	62.56	29.97
140	50	57.06	24.096
140	60	58.9	20.331
140	70	57.38	23.212
140	80	56.16	25.158
140	90	50.66	18.31
140	100	45.48	20.878
140	110	44.26	13.477
140	120	47.3	8.329
140	130	57.68	9.095
140	140	62.86	5.607
140	150	60.42	8.452
140	160	80.88	6.069
140	170	74.16	5.857
140	180	73.86	11.91
140	190	-7.94	-22.437
140	200	-36.32	-22.424
140	210	10.38	-22.403
140	220	69.28	0.293
140	230	69.88	0.472
140	240	61.96	11.651
140	250	70.5	8.891
140	260	65.3	9.332
140	270	85.759	10.387
140	280	73.54	0.316
140	290	86.98	12.389
140	300	79.04	-3.459
140	310	96.74	17.735
140	320	76.9	-14.513
140	330	109.56	17.801
140	340	117.18	1.475
140	350	88.2	30.358
140	360	148.62	30.35
140	370	132.76	30.341
140	380	153.8	30.308
140	390	192.26	30.325
140	400	104.38	30.299
140	410	135.8	30.339
140	420	104.38	18.951
140	430	80.56	6.71
140	440	82.7	3.54

TERRAIN CONDUCTIVITY DATA

FORMER LANDFILL AREA

Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
140	450	78.12	2.046
140	460	69.58	1.332
140	470	78.12	-0.777
140	480	70.2	-0.657
140	490	77.82	0.576
140	500	82.7	-3.799
140	510	69.28	1.548
140	520	66.22	-0.213
140	530	76.9	-0.501
140	540	65	-0.485
140	550	65	0.837
140	560	75.08	1.609
150			
150	560	62.56	2.421
150	550	54.94	1.153
150	540	68.06	0.189
150	530	70.5	-0.341
150	520	68.66	-0.534
150	510	82.1	1.074
150	500	79.96	-2.599
150	490	79.66	1.763
150	480	67.44	-1.4
150	470	64.08	0.613
150	460	72.64	1.8
150	450	71.42	2.774
150	440	72.94	4.525
150	430	74.759	8.626
150	420	99.18	21.801
150	410	129.08	30.474
150	400	122.38	30.452
150	390	149.84	30.415
150	380	113.52	30.422
150	370	154.72	30.422
150	360	178.52	30.382
150	350	196.84	22.94
150	340	115.36	1.791
150	330	88.5	-1.683
150	320	43.94	-22.047
150	310	74.46	-12.555
150	300	85.14	-4.815
150	290	42.12	-0.909
150	280	72.64	15.438
150	270	81.48	2.66
150	260	88.5	20.035
150	250	84.84	10.914
150	240	68.96	-1.455
150	230	68.06	-5.957
150	220	14.04	-21.902
150	210	-18.92	-21.907
150	200	-11.3	-21.885
150	190	39.98	4.273

TERRAIN CONDUCTIVITY DATA

FORMER LANDFILL AREA

Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
150	180	56.76	11.665
150	170	59.5	9.552
150	160	52.18	11.313
150	150	51.26	9.74
150	140	55.24	12.459
150	130	53.4	18.089
150	120	49.44	11.305
150	110	50.96	15.506
150	100	52.8	17.442
150	90	54.62	16.987
150	80	49.44	23.982
150	70	56.46	14.953
150	60	60.12	21.4
150	50	62.26	20.252
150	40	67.44	28.456
150	30	61.04	30.124
150	20	57.68	21.191
150	10	58.28	22.26
150	0	71.42	30.119
150	-10	69.88	29.11
160			
160	0	36.32	1.096
160	10	57.98	22.413
160	20	54.94	17.586
160	30	59.2	22.609
160	40	54.62	23.497
160	50	61.04	20.981
160	60	58.9	22.47
160	70	64.4	21.02
160	80	64.4	17.723
160	90	59.5	21.994
160	100	62.86	20.311
160	110	59.2	14.111
160	120	58.6	16.994
160	130	56.16	19.324
160	140	52.5	16.452
160	150	52.5	11.291
160	160	54.02	15.384
160	170	48.52	15.068
160	180	52.18	11.798
160	190	43.34	9.512
160	200	50.36	6.467
160	210	34.18	10.234
160	220	14.96	-14.278
160	230	37.54	-13.007
160	240	32.96	-5.396
160	250	68.36	3.645
160	260	83.62	13.349
160	270	78.44	6.091
160	280	52.18	7.731
160	290	79.96	1.765

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
160	300	64.08	3.729
160	310	75.38	-7.774
160	320	67.44	-12.516
160	330	43.02	-6.352
160	340	79.96	-21.657
160	350	145.56	12.709
160	360	145.88	29.92
160	370	159.3	29.911
160	380	122.38	29.88
160	390	120.54	29.902
160	400	93.38	29.898
160	410	111.08	29.882
160	420	87.28	18.662
160	430	75.98	9.167
160	440	72.64	6.148
160	450	68.96	3.923
160	460	75.68	2.32
160	470	71.1	2.002
160	480	64.08	-0.18
160	490	71.42	-5.955
160	500	80.26	-1.607
160	510	74.16	0.893
160	520	73.24	0.29
160	530	90.34	7.287
160	540	24.42	-21.635
160	550	18	-21.634
160	560	51.88	-21.624
170			
170	560	55.84	3.899
170	550	48.82	1.942
170	540	72.64	0.883
170	530	83.62	0.068
170	520	58.6	3.474
170	510	77.2	2.691
170	500	77.82	0.69
170	490	64.7	0.598
170	480	57.98	-1.412
170	470	67.74	2.816
170	460	68.96	4.962
170	450	65.3	6.655
170	440	72.64	9.15
170	430	77.82	12.575
170	420	82.7	20.098
170	410	89.72	30.148
170	400	86.06	30.139
170	390	118.4	30.119
170	380	132.14	30.11
170	370	154.72	30.077
170	360	151.36	30.073
170	350	135.2	30.093
170	340	134.88	14.822

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
170	330	56.76	0.604
170	320	126.34	30.042
170	310	76.9	-1.763
170	300	76.9	0.757
170	290	76.6	2.407
170	280	77.52	13.911
170	270	68.66	25.529
170	260	70.2	10.513
170	250	72.94	9.96
170	240	69.58	11.623
170	230	29	-21.722
170	220	21.06	-18.506
170	210	33.88	5.606
170	200	48.82	7.656
170	190	35.4	8.34
170	180	48.22	11.243
170	170	50.04	17.31
170	160	49.44	20.228
170	150	51.26	12.939
170	140	56.46	8.546
170	130	56.46	15.351
170	120	56.76	16.294
170	110	64.4	17.066
170	100	68.96	19.243
170	90	68.06	21.542
170	80	63.48	23.247
170	70	74.759	29.897
170	60	60.42	18.337
170	50	51.88	12.988
170	40	44.86	11.686
170	30	44.56	7.096
170	20	44.86	6.715
170	10	47.3	9.925
170	0	34.18	-5.108
170	-10	41.5	6.05
180			
180	0	42.72	2.206
180	10	40.9	2.252
180	20	42.72	6.664
180	30	40.28	0.475
180	40	44.26	8.007
180	50	49.14	15.533
180	60	56.76	10.719
180	70	62.86	20.03
180	80	74.759	18.372
180	90	76.3	20.882
180	100	73.86	18.65
180	110	65.92	20.358
180	120	64.7	14.269
180	130	58.6	8.005
180	140	53.4	14.175

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
180	150	51.58	15.309
180	160	49.74	11.952
180	170	49.14	11.993
180	180	46.08	8.952
180	190	43.94	8.003
180	200	49.74	10.416
180	210	48.22	9.409
180	220	37.54	2.017
180	230	58.28	8.981
180	240	75.08	7.847
180	250	78.74	15.853
180	260	110.78	29.893
180	270	101.32	29.891
180	280	87.28	12.75
180	290	96.74	11.322
180	300	97.66	29.334
180	310	142.22	29.871
180	320	142.22	29.867
180	330	143.74	29.875
180	340	174.86	29.873
180	350	153.8	29.869
180	360	148.02	29.84
180	370	133.66	29.845
180	380	122.38	29.838
180	390	98.58	29.838
180	400	89.72	29.864
180	410	83.92	27.58
180	420	81.48	16.57
180	430	75.38	14.324
180	440	74.16	21.022
180	450	73.54	18.648
180	460	74.759	10.824
180	470	65	4.165
180	480	63.18	1.885
180	490	64.7	-0.635
180	500	64.7	-8.354
180	510	69.88	2.803
180	520	72.94	0.308
180	530	90.64	0.679
180	540	75.08	0.593
180	550	49.14	1.523
180	560	78.44	3.974
190			
190	560	76.9	2.59
190	550	53.1	0.742
190	540	71.719	0.172
190	530	87.9	0.058
190	520	61.96	0.475
190	510	68.96	0.944
190	500	64.4	-0.113
190	490	60.12	2.125

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
190	480	56.46	2.783
190	470	63.48	6.589
190	460	69.28	16.639
190	450	68.96	25.643
190	440	71.719	23.737
190	430	72.64	23.287
190	420	72.02	19.557
190	410	69.58	26.846
190	400	79.04	30.347
190	390	82.7	30.308
190	380	99.18	30.292
190	370	111.08	30.284
190	360	126.64	30.277
190	350	127.86	30.271
190	340	135.8	30.286
190	330	133.98	30.277
190	320	112.3	30.242
190	310	111.08	30.169
190	300	101.62	14.056
190	290	96.74	16.639
190	280	107.42	30.148
190	270	158.38	30.161
190	260	115.96	30.161
190	250	79.96	30.163
190	240	57.98	1.424
190	230	50.96	12.073
190	220	49.74	8.36
190	210	48.52	9.17
190	200	43.94	8.68
190	190	42.42	10.513
190	180	44.86	12.34
190	170	44.26	10.484
190	160	44.56	12.792
190	150	46.08	14.142
190	140	52.8	15.689
190	130	55.54	8.714
190	120	65.92	16.292
190	110	74.759	24.27
190	100	81.78	30.023
190	90	83.32	22.257
190	80	71.719	16.704
190	70	57.38	17.034
190	60	45.48	2.109
190	50	50.36	12.626
190	40	38.14	-0.242
190	30	38.46	5.49
190	20	35.1	2.364
190	10	35.7	1.133
190	0	39.68	1.277
190	-10	37.84	0.766
200			

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
200	0	39.98	8.075
200	10	37.24	20.079
200	20	34.8	3.678
200	30	36.62	1.484
200	40	40.58	3.391
200	50	41.8	-3.439
200	60	16.48	5.751
200	70	60.72	13.74
200	80	92.78	30.018
200	90	105.6	30.031
200	100	91.859	30.045
200	110	75.08	25.035
200	120	60.42	15.237
200	130	56.16	20.893
200	140	50.66	10.824
200	150	47	7.777
200	160	50.04	6.702
200	170	50.36	6.589
200	180	50.04	5.525
200	190	52.18	5.295
200	200	48.22	3.485
200	210	52.8	3.775
200	220	54.02	8.869
200	230	53.72	9.292
200	240	61.34	11.164
200	250	81.48	14.925
200	260	75.38	28.634
200	270	108.04	30.016
200	280	92.16	23.416
200	290	95.82	20.151
200	300	100.4	29.862
200	310	97.96	29.272
200	320	105.9	19.094
200	330	101.32	28.879
200	340	110.48	29.285
200	350	102.54	27.8
200	360	101.02	29.961
200	370	98.58	29.996
200	380	85.44	29.976
200	390	82.1	29.974
200	400	75.38	29.97
200	410	69.28	26.49
200	420	68.96	25.586
200	430	68.96	24.945
200	440	70.2	26.354
200	450	69.28	24.807
200	460	67.14	15.247
200	470	61.04	2.787
200	480	58.9	3.788
200	490	61.34	3.116
200	500	65.92	0.573

TERRAIN CONDUCTIVITY DATA

FORMER LANDFILL AREA

Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
200	510	74.16	-0.758
200	520	68.66	0.861
200	530	87.58	0.771
200	540	78.74	0.446
200	550	47.92	1.55
200	560	96.44	5.198
210			
210	20	33.538	34.084
210	30	26.886	1.784
210	40	32.898	3.191
210	50	48.218	7.283
210	60	21.668	12.055
210	70	108.856	34.099
210	80	123.138	34.102
210	90	134.28	34.106
210	100	93.68	34.11
210	110	86.98	33.081
210	120	53.72	21.125
210	130	53.72	15.219
210	140	47.3	10.71
210	150	56.76	6.186
210	160	48.52	3.821
210	170	33.88	5.216
210	180	35.7	9.479
210	190	54.02	2.362
210	200	54.62	6.574
210	210	52.5	6.804
210	220	50.96	9.236
210	230	54.32	13.253
210	240	26.86	2.456
210	250	36.02	4.547
210	260	78.74	29.222
210	270	86.98	27.817
210	280	99.18	32.498
210	290	103.76	34.016
210	300	100.4	34.132
210	310	107.12	34.132
210	320	101.62	26.009
210	330	99.48	25.303
210	340	91.56	27.161
210	350	94.899	29.062
210	360	93.08	30.722
210	370	96.44	33.404
210	380	82.7	34.136
210	390	72.94	34.136
210	400	65.3	34.075
210	410	59.82	29.584
210	420	57.98	27.934
210	430	61.04	31.166
210	440	63.48	29.84
210	450	65.62	25.165

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
210	460	59.2	20.794
210	470	54.94	6.702
210	480	54.02	5.89
210	490	53.1	4.573
210	500	60.42	2.849
220			
220	550	6.4	34.174
220	540	2.14	34.174
220	530	3.06	34.174
220	520	2.44	34.176
220	510	54.32	2.249
220	500	65	0.982
220	490	75.98	1.352
220	480	65.3	2.033
220	470	59.2	1.734
220	460	47.92	-7.79
220	450	50.36	6.409
220	440	53.1	5.835
220	430	51.26	8.143
220	420	54.32	16.428
220	410	54.94	22.025
220	400	54.62	25.821
220	390	54.32	26.834
220	380	53.1	25.665
220	370	58.6	29.112
220	360	58.9	32.228
220	350	65	34.099
220	340	72.32	33.158
220	330	81.48	31.712
220	320	92.16	29.746
220	310	90.34	29.272
220	300	89.72	28.599
220	290	98.26	27.67
220	280	92.16	27.3
220	270	111.7	27.883
220	260	104.06	27.177
220	250	102.24	28.039
220	240	100.7	30.374
220	230	89.42	24.913
220	220	68.36	21.996
220	210	42.42	1.012
220	200	46.08	-0.516
220	190	23.5	-0.88
220	180	59.5	6.478
220	170	78.12	6.838
220	160	35.1	7.849
220	150	37.54	6.798
220	140	165.4	9.53
220	130	72.64	7.939
220	120	66.84	4.532
220	110	43.94	2.791

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
220	100	57.68	9.532
220	90	57.38	10.03
220	80	53.72	19.984
220	70	77.2	33.336
220	60	99.8	34.169
220	50	120.84	34.171
220	40	126.96	34.171
220	30	128.18	34.171
220	20	17.08	11.535
220	10	44.86	4.352
220	0	36.02	4.373
220	-10	27.16	2.232
220	-20	27.46	8.316
220	-30	30.22	24.625
220	-40	38.46	9.852
220	-50	46.7	1.708
230			
230	0	25.32	2.001
230	10	23.8	0.942
230	20	24.42	0.505
230	30	27.16	1.745
230	40	37.24	2.471
230	50	22.58	-5.563
230	60	54.32	34.147
230	70	75.68	27.94
230	80	117.18	34.15
230	90	94	34.15
230	100	68.96	34.15
230	110	63.48	25.004
230	120	19.54	8.196
230	130	56.16	6.026
230	140	49.44	13.358
230	150	58.28	5.973
230	160	65.3	6.054
230	170	99.8	19.884
230	180	161.44	12.044
230	190	92.16	11.724
230	200	93.08	8.667
230	210	75.38	8.788
230	220	70.8	9.095
230	230	61.96	10.343
230	240	60.42	14.91
230	250	32.96	-21.466
230	260	50.96	3.215
230	270	66.52	11.509
230	280	77.2	15.293
230	290	106.82	13.462
230	300	105.6	17.336
230	310	108.64	21.878
230	320	84.84	27.557
230	330	93.68	28.129

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
230	340	82.1	26.273
230	350	81.48	26.126
230	360	80.56	26.856
230	370	51.26	23.807
230	380	61.04	25.224
230	390	57.06	29.665
230	400	53.72	29.075
230	410	50.36	25.136
230	420	47.6	21.691
230	430	49.14	20.533
230	440	49.44	21.393
230	450	47.92	17.385
230	460	47.6	12.533
230	470	47	5.778
230	480	40.58	0.288
230	490	50.36	1.19
240			
240	0	-0.219	0.378
240	10	-0.22	0.378
240	20	32.66	0.385
240	30	26.86	-0.139
240	40	27.16	-0.521
240	50	26.56	-0.323
240	60	36.62	-0.115
240	70	29.6	3.535
240	80	44.56	12.619
240	90	31.44	-1.045
240	100	67.14	31.328
240	110	61.96	30.135
240	120	46.7	21.939
240	130	51.88	12.103
240	140	25.02	5.951
240	150	44.86	6.111
240	160	78.74	8.398
240	170	90.34	8.316
240	180	75.08	8.681
240	190	90.02	12.292
240	200	87.58	10.565
240	210	88.5	20.246
240	220	90.64	16.753
240	230	75.38	16.974
240	240	81.48	15.249
240	250	71.719	11.631
240	260	69.58	16.768
240	270	74.46	18.955
240	280	61.64	13.479
240	290	79.34	14.861
240	300	66.84	7.476
240	310	75.98	10.236
240	320	84.22	11.553
240	330	84.54	14.442

TERRAIN CONDUCTIVITY DATA

FORMER LANDFILL AREA

Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
240	340	86.98	19.166
240	350	82.1	21.94
240	360	79.04	21.731
240	370	78.44	21.108
240	380	69.58	21.419
240	390	53.1	22.299
240	400	47.92	12.481
240	410	59.5	21.398
240	420	54.62	19.669
240	430	48.22	18.403
240	440	46.7	16.428
240	450	46.7	15.722
240	460	46.08	13.108
240	470	44.26	11.744
240	480	43.64	8.303
240	490	43.34	4.933
240	500	42.72	2.294
240	510	38.14	-1.181
240	520	50.36	-3.729
240	530	57.98	-10.616
240	540	69.58	2.752
240	550	75.68	1.174
240	560	68.06	0.7
240	570	54.32	1.091
240	580	103.76	5.968
250			
250	490	52.18	3.763
250	480	46.7	3.698
250	470	41.2	5.765
250	460	39.06	8.942
250	450	43.34	12.353
250	440	47.3	13.591
250	430	45.78	14.08
250	420	46.7	16.45
250	410	51.88	17.589
250	400	57.98	17.402
250	390	60.42	18.681
250	380	61.64	21.669
250	370	63.48	22.679
250	360	69.88	22.144
250	350	76.6	22.62
250	340	82.4	23.221
250	330	72.32	19.759
250	320	86.66	15.239
250	310	87.58	14.705
250	300	86.66	13.393
250	290	59.82	11.599
250	280	99.18	16.498
250	270	89.72	18.885
250	260	76.9	29.426
250	250	98.26	26.348

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
250	240	101.62	24.395
250	230	94.6	23.124
250	220	98.58	27.221
250	210	94	27.629
250	200	85.759	27.128
250	190	77.52	16.074
250	180	83	9.174
250	170	83.92	8.635
250	160	71.42	6.052
250	150	92.46	4.336
250	140	70.2	5.83
250	130	10.68	7.577
250	120	47	8.966
250	110	40.28	9.003
250	100	37.24	9.213
250	90	41.8	9.771
250	80	45.78	12.663
250	70	47.92	8.95
250	60	35.4	6.206
250	50	22.88	4.433
250	40	34.18	1.315
250	30	30.52	1.782
250	20	28.68	2.092
250	10	28.38	2.759
250	0	31.44	2.285
250	-10	30.52	2.254
260			
260	561	89.72	8.768
260	551	53.1	4.064
260	541	67.44	2.07
260	531	80.88	1.067
260	521	84.54	1.738
260	511	102.84	-1.94
260	501	68.06	2.1
260	491	56.76	1.016
260	481	47.6	1.644
260	471	42.12	2.456
260	461	41.5	4.692
260	451	43.94	7.862
260	441	44.86	9.433
260	431	43.94	10.003
260	421	47	9.843
260	411	47.92	10.622
260	401	52.5	10.387
260	391	54.02	11.404
260	381	54.94	13.729
260	371	61.34	16.257
260	361	65.92	17.036
260	351	66.52	16.717
260	341	72.64	14.583
260	331	59.2	11.539

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
260	321	73.86	9.571
260	311	67.44	9.898
260	301	72.64	8.286
260	291	76.6	7.845
260	281	91.859	13.371
260	271	103.14	23.353
260	261	111.38	27.306
260	251	87.9	23.995
260	241	108.04	23.932
260	231	99.8	23.903
260	221	93.08	23.037
260	211	83.92	22.946
260	201	73.86	18.289
260	191	65.62	7.98
260	181	65	3.889
260	171	62.86	4.374
260	161	55.24	3.487
260	151	83.32	0.894
260	141	81.78	1.672
260	131	33.26	2.476
260	121	38.46	4.488
260	111	32.34	4.935
260	101	32.34	2.95
260	91	33.26	2.114
260	81	33.88	2.671
260	71	39.98	2.57
260	61	33.26	2.969
260	51	19.54	0.253
260	41	40.9	0.172
260	31	56.16	7.739
260	21	31.12	-3.134
260	11	7.94	-13.915
260	1	-1.52	-22.578
260	-9	30.82	0.553
270			
270	50	31.12	1.381
270	60	41.2	2.403
270	70	33.88	2.881
270	80	25.94	1.631
270	90	24.42	1.238
270	100	25.94	3.52
270	110	24.1	2.035
270	120	32.04	0.709
270	130	42.42	0.569
270	140	53.1	0.87
270	150	79.04	1.124
270	160	48.22	1.653
270	170	49.14	2.87
270	180	57.06	3.573
270	190	60.12	8.558
270	200	72.02	19.32

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
270	210	86.36	22.578
270	220	92.46	24.847
270	230	102.24	23.041
270	240	127.86	23.397
270	250	119.32	24.974
270	260	157.48	25.654
270	270	108.34	21.136
270	280	61.34	15.074
270	290	73.24	9.067
270	300	97.96	7.98
270	310	79.04	9.819
270	320	56.76	11.109
270	330	60.42	11.509
270	340	61.96	6.168
270	350	52.5	9.698
270	360	57.38	15.555
270	370	54.02	15.53
270	380	50.96	13.058
270	390	49.44	11.627
270	400	43.02	10.438
270	410	32.96	11.605
270	420	40.58	10.098
270	430	40.28	12.318
270	440	44.26	10.822
270	450	42.12	8.088
270	460	40.28	6.039
270	470	45.16	3.305
270	480	45.16	-0.376
270	490	58.6	1.475
280			
280	0	27.78	1.209
280	10	39.36	9.409
280	20	36.62	2.283
280	30	35.7	2.381
280	40	35.4	1.251
280	50	4.58	-3.524
280	60	47.6	1.907
280	70	35.1	1.093
280	80	25.64	0.062
280	90	22.28	-0.532
280	100	21.98	-0.876
280	110	25.32	-1.122
280	120	20.14	-0.968
280	130	42.12	-1.082
280	140	41.5	-0.722
280	150	52.8	-0.523
280	160	54.62	-0.091
280	170	46.7	0.591
280	180	53.4	3.34
280	190	53.72	9.258
280	200	66.52	14.23

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
280	210	78.12	17.362
280	220	85.14	19.015
280	230	86.66	16.397
280	240	114.14	14.912
280	250	104.98	14.662
280	260	110.48	13.902
280	270	128.78	14.139
280	280	71.42	15.225
280	290	71.1	12.428
280	300	72.94	12.445
280	310	65.92	6.085
280	320	79.96	11.675
280	330	35.4	8.997
280	340	62.26	10.737
280	350	50.66	9.115
280	360	46.7	11.23
280	370	45.78	13.378
280	380	46.38	9.887
280	390	43.64	9.348
280	400	39.98	9.622
280	410	39.68	6.965
280	420	32.04	5.749
280	430	40.9	9.027
280	440	44.26	7.934
280	450	41.8	5.091
280	460	44.56	3.719
280	470	52.18	2.004
280	480	57.98	2.021
280	490	69.88	3.698
280	500	88.2	3.3
280	510	112.92	3.998
280	520	125.12	5.097
280	530	75.68	4.147
280	540	58.9	7.465
280	550	50.36	8.084
290			
290	480	63.18	2.936
290	470	60.12	3.401
290	460	47.6	5.83
290	450	42.42	1.596
290	440	31.44	6.563
290	430	28.38	1.936
290	420	20.14	-5.804
290	410	39.36	13.398
290	400	39.68	8.714
290	390	40.58	10.392
290	380	42.72	12.145
290	370	43.64	12.206
290	360	49.44	12.505
290	350	47.6	10.684
290	340	34.48	6.695

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
290	330	50.66	10.497
290	320	65.62	17.997
290	310	73.24	17.185
290	300	75.38	14.394
290	290	70.2	13.826
290	280	87.28	11.895
290	270	97.36	11.258
290	260	102.84	11.465
290	250	102.24	13.069
290	240	97.66	13.415
290	230	80.88	16.182
290	220	83	17.211
290	210	76.9	18.058
290	200	63.18	17.453
290	190	54.02	11.414
290	180	48.22	5.756
290	170	46.7	5.049
290	160	48.52	3.325
290	150	47.6	1.776
290	140	29.9	1.159
290	130	34.8	0.722
290	120	18.32	0.891
290	110	20.76	0.255
290	100	18.62	0.867
290	90	20.14	1.142
290	80	23.2	1.835
290	70	31.74	2.486
290	60	56.76	5.065
290	50	-4.28	-2.971
290	40	40.9	4.277
290	30	30.22	3.074
290	20	40.58	2.475
290	10	29	1.903
290	0	25.02	1.442
290	-10	24.42	1.337
300			
300	550	43.34	1.045
300	540	43.94	0.922
300	530	64.4	0.593
300	520	75.38	1.846
300	510	101.62	1.909
300	500	103.46	1.605
300	490	89.42	2.451
300	480	74.16	3.34
300	470	67.74	3.535
300	460	58.9	4.141
300	450	47.3	-2.028
300	440	9.46	-22.947
300	430	17.7	-22.929
300	420	45.48	9.933
300	410	45.78	8.501

TERRAIN CONDUCTIVITY DATA

FORMER LANDFILL AREA

Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
300	400	35.1	7.579
300	390	40.28	6.039
300	380	42.72	9.699
300	370	49.44	17.792
300	360	41.2	0.588
300	350	28.38	-16.614
300	340	32.04	-8.487
300	330	62.26	15.868
300	320	63.48	12.948
300	310	68.36	7.856
300	300	63.48	6.306
300	290	64.4	5.973
300	280	75.38	6.429
300	270	77.2	6.91
300	260	84.22	7.583
300	250	84.22	8.749
300	240	78.74	9.19
300	230	75.08	10.07
300	220	70.8	11.061
300	210	69.28	12.687
300	200	69.58	12.242
300	190	55.24	8.516
300	180	50.66	6.012
300	170	49.74	7.353
300	160	42.42	7.467
300	150	40.9	4.981
300	140	30.82	0.211
300	130	29.9	-0.341
300	120	25.32	-0.795
300	110	20.76	-0.801
300	100	22.58	-0.519
300	90	23.8	0.119
300	80	26.86	0.624
300	70	33.88	-1.594
300	60	50.04	4.408
300	50	0.62	-4.744
300	40	46.08	2.726
300	30	32.96	2.454
300	20	43.34	1.357
300	10	33.56	0.733
300	0	29.6	0.415
300	-10	27.46	0.029
310			
310	0	29.9	1.4
310	10	32.04	2.146
310	20	40.9	3.684
310	30	35.1	4.575
310	40	27.46	0.317
310	50	8.54	-1.922
310	60	57.98	5.56
310	70	32.34	2.798

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
310	80	22.88	1.624
310	90	19.22	0.937
310	100	16.18	-0.003
310	110	17.4	-0.226
310	120	22.58	0.02
310	130	25.02	0.586
310	140	28.68	2.375
310	150	34.8	8.455
310	160	40.9	8.797
310	170	47.3	10.137
310	180	43.02	12.467
310	190	53.72	13.575
310	200	75.68	12.349
310	210	73.86	10.719
310	220	57.06	9.942
310	230	65	8.814
310	240	63.78	8.874
310	250	66.84	8.196
310	260	62.86	7.322
310	270	59.82	7.059
310	280	60.12	6.53
310	290	61.34	5.44
310	300	61.96	5.236
310	310	61.34	5.795
310	320	59.82	9.637
310	330	59.2	14.289
310	340	54.02	11.79
310	350	50.66	15.265
310	360	49.14	12.123
310	370	40.9	9.104
310	380	38.76	7.39
310	390	39.98	5.117
310	400	37.24	6.761
310	410	38.76	5.545
310	420	39.68	5.336
310	430	39.68	2.219
310	440	46.08	6.153
310	450	54.32	5.297
310	460	63.48	4.518
310	470	77.52	5.001
320			
320	0	31.74	-0.042
320	10	36.02	0.883
320	20	48.52	1.73
320	30	32.34	3.454
320	40	40.58	0.538
320	50	6.72	-3.015
320	60	61.04	5.304
320	70	35.7	1.83
320	80	25.94	0.439
320	90	22.28	-0.316

TERRAIN CONDUCTIVITY DATA

FORMER LANDFILL AREA

Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
320	100	20.14	-0.633
320	110	21.06	-1.247
320	120	23.8	-0.981
320	130	24.72	-0.439
320	140	32.04	0.896
320	150	34.8	4.894
320	160	42.42	11.465
320	170	50.96	13.854
320	180	61.96	15.712
320	190	65.92	15.713
320	200	68.66	10.429
320	210	64.08	8.108
320	220	61.04	5.988
320	230	63.78	5.205
320	240	54.94	6.225
320	250	52.8	4.773
320	260	53.72	4.577
320	270	51.26	3.849
320	280	50.96	4.148
320	290	50.36	3.627
320	300	49.14	3.342
320	310	52.18	3.007
320	320	55.84	4.591
320	330	28.68	-22.857
320	340	32.96	-4.257
320	350	43.34	4.92
320	360	42.12	5.464
320	370	38.46	4.31
320	380	35.1	1.479
320	390	35.7	0.758
320	400	38.14	3.667
320	410	41.8	2.914
320	420	41.8	3.586
320	430	47.6	3.825
320	440	50.66	1.087
320	450	57.98	0.771
320	460	69.58	3.402
320	470	103.14	4.861
320	480	119.32	4.31
320	490	115.96	2.985
320	500	95.82	2.35
320	510	72.64	1.51
320	520	53.72	0.889
320	530	45.16	0.45
320	540	36.92	0.604
320	550	47.92	1.317
330			
330	470	116.58	6.601
330	460	86.66	8.018
330	450	71.1	-0.005
330	440	59.5	1.475

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
330	430	54.32	6.491
330	420	45.48	2.254
330	410	35.4	1.495
330	400	34.8	2.645
330	390	36.62	1.749
330	380	37.24	2.923
330	370	35.7	3.695
330	360	29	0.834
330	350	20.76	-0.869
330	340	43.02	2.688
330	330	35.7	-0.729
330	320	45.78	6.1
330	310	44.56	4.52
330	300	47.6	6.074
330	290	40.9	4.213
330	280	44.26	4.253
330	270	49.44	4.826
330	260	39.36	11.226
330	250	61.64	5.949
330	240	62.86	7.943
330	230	63.48	4.014
330	220	55.54	6.908
330	210	70.5	13.058
330	200	74.759	16.985
330	190	75.08	22.506
330	180	75.38	27.137
330	170	70.2	29.395
330	160	62.26	29.07
330	150	45.48	16.474
330	140	38.14	6.631
330	130	28.68	1.918
330	120	22.58	0.448
330	110	19.84	-0.966
330	100	21.36	1.578
330	90	25.94	2.033
330	80	29	2.813
330	70	36.92	4.062
330	60	59.82	7.458
330	50	1.84	-3.476
330	40	34.8	1.697
330	30	29.6	5.982
330	20	57.38	4.06
330	10	41.2	3.05
330	0	32.66	2.291
330	-10	30.82	1.967
330	-20	32.04	1.525
340			
340	550	43.02	0.703
340	540	39.68	0.183
340	530	39.98	0.354
340	520	48.82	0.431

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
340	510	52.5	0.512
340	500	71.1	1.33
340	490	133.36	3.167
340	480	121.76	3.48
340	470	110.78	3.461
340	460	99.18	5.668
340	450	77.52	6.818
340	440	68.96	7.737
340	430	45.16	-18.35
340	420	36.62	-19.111
340	410	51.26	7.048
340	400	38.14	1.503
340	390	31.74	2.987
340	380	34.48	11.502
340	370	32.96	-3.799
340	360	35.7	1.21
340	350	36.02	3.465
340	340	39.06	2.458
340	330	39.98	3.641
340	320	43.02	4.63
340	310	44.56	6.124
340	300	43.94	5.391
340	290	41.5	2.644
340	280	44.56	3.586
340	270	49.74	3.97
340	260	48.22	2.614
340	250	56.76	4.027
340	240	56.46	6.383
340	230	66.52	6.258
340	220	66.22	6.945
340	210	78.44	15.215
340	200	86.66	18.929
340	190	91.859	25.22
340	180	95.52	30.784
340	170	99.8	30.762
340	160	83	30.749
340	150	54.32	25.312
340	140	28.38	4.058
340	130	42.12	3.807
340	120	30.52	0.643
340	110	27.78	-0.082
340	100	30.22	0.534
340	90	30.52	0.791
340	80	33.56	1.462
340	70	39.36	2.612
340	60	55.54	5.424
340	50	34.18	-0.85
340	40	25.02	-1.174
340	30	41.5	6.331
340	20	66.52	3.847
340	10	49.44	2.339

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
340	0	39.06	1.186
350			
350	450	-0.093	-0.02
350	440	72.94	6.64
350	430	66.52	9.782
350	420	67.14	9.009
350	410	33.56	-22.433
350	400	43.02	-5.255
350	390	45.78	2.723
350	380	38.76	1.997
350	370	38.46	5.958
350	360	34.48	-0.049
350	350	36.32	0.226
350	340	33.26	4.071
350	330	38.14	1.262
350	320	38.46	2.478
350	310	41.2	2.813
350	300	44.26	4.187
350	290	44.56	6.203
350	280	46.08	4.876
350	270	47.3	3.698
350	260	49.44	2.195
350	250	51.58	1.159
350	240	54.32	1.745
350	230	59.2	3.336
350	220	68.66	4.812
350	210	72.94	7.579
350	200	79.34	14.412
350	190	92.78	21.709
350	180	101.62	27.218
350	170	111.7	30.501
350	160	93.08	30.503
350	150	106.2	30.468
350	140	47	23.532
350	130	-32.96	-22.301
350	120	25.32	-1.694
350	110	40.28	2.381
350	100	33.26	0.766
350	90	32.34	0.569
350	80	33.26	0.867
350	70	35.7	1.449
350	60	41.8	2.631
350	50	58.9	5.091
350	40	22.28	-2.05
350	30	-52.5	-22.218
350	20	-50.04	-22.205
350	10	65.62	0.889
350	0	61.34	5.758
350	-10	40.9	0.725
350	-20	39.36	0.29
350	-30	39.68	0.194

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
360			
360	0	47	3.116
360	10	-15.86	-22.767
360	20	58.6	-22.731
360	30	20.76	8.871
360	40	39.68	2.311
360	50	50.66	4.553
360	60	45.16	3.838
360	70	31.44	-0.67
360	80	30.52	1.414
360	90	31.44	1.157
360	100	33.26	1.831
360	110	37.24	2.412
360	120	44.56	6.168
360	130	33.26	-10.666
360	140	17.7	-22.494
360	150	77.2	25.382
360	160	34.18	-14.936
360	170	78.44	5.933
360	180	88.5	13.611
360	190	94	22.277
360	200	89.12	20.053
360	210	75.08	9.852
360	220	67.74	9.178
360	230	61.96	3.145
360	240	49.44	0.773
360	250	48.82	1.038
360	260	46.08	0.87
360	270	44.56	1.012
360	280	44.26	2.177
360	290	45.16	3.933
360	300	43.64	2.939
360	310	41.5	1.705
360	320	38.46	1.458
360	330	35.7	1.317
360	340	35.7	0.617
360	350	37.54	0.817
360	360	35.7	1.128
360	370	34.8	-0.519
360	380	36.32	1.523
360	390	39.68	2.638
360	400	46.7	7.518
360	410	50.04	10.872
360	420	57.38	11.829
360	430	59.82	12.525
360	440	62.56	5.699
360	450	65.92	1.585
360	460	61.34	-4.643
360	470	63.18	-3.575
360	480	61.34	1.31
360	490	72.94	1.126

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
360	500	58.6	0.545
360	510	61.64	0.911
360	520	48.82	0.736
360	530	49.14	0.931
360	540	51.26	1.394
360	550	66.22	2.985
370			
370	0	46.08	3.408
370	10	-2.44	-6.853
370	20	117.18	13.85
370	30	88.8	7.068
370	40	36.32	-0.556
370	50	55.24	4.419
370	60	43.94	3.968
370	70	37.24	-2.329
370	80	26.56	-1.255
370	90	26.24	-3.524
370	100	25.94	-7.654
370	110	13.74	-6.153
370	120	12.82	-17.802
370	130	32.96	-7.158
370	140	14.96	-11.302
370	150	49.14	-4.828
370	160	53.4	-15.983
370	170	72.64	6.41
370	180	92.16	16.152
370	190	88.8	12.101
370	200	85.14	17.889
370	210	75.98	8.536
370	220	72.94	4.566
370	230	63.48	2.076
370	240	58.6	0.894
370	250	56.16	0.992
370	260	49.14	1.032
370	270	48.82	1.411
370	280	47	1.407
370	290	44.56	4.757
370	300	46.38	0.887
370	310	43.64	-0.472
370	320	42.42	0.685
370	330	39.36	0.727
370	340	32.96	-5.977
380			
380	550	53.4	1.019
380	540	49.44	0.402
380	530	50.36	0.172
380	520	50.04	-0.082
380	510	51.58	0.29
380	500	52.18	0.06
380	490	45.16	0.727
380	480	48.82	-0.558

TERRAIN CONDUCTIVITY DATA

FORMER LANDFILL AREA

Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
380	470	65.92	0.856
380	460	50.96	1.3
380	450	56.16	1.315
380	440	54.62	-3.04
380	430	48.82	0.938
380	420	50.66	2.927
380	410	50.96	3.441
380	400	48.82	11.193
380	390	41.8	1.815
380	380	38.46	0.213
380	370	36.62	-0.365
380	360	36.92	-1.609
380	350	34.8	-3.492
380	340	33.26	-7.193
380	330	42.72	1.049
380	320	42.72	0.905
380	310	47.6	1.161
380	300	48.82	1.212
380	290	49.44	1.556
380	280	47.92	0.777
380	270	50.36	1.216
380	260	55.54	0.569
380	250	62.26	1.139
380	240	50.96	1.019
380	230	60.42	0.872
380	220	73.24	0.134
380	210	62.86	9.433
380	200	79.96	8.16
380	190	82.4	13.915
380	180	90.02	14.401
380	170	58.6	8.79
380	160	54.02	-1.357
380	150	46.38	-0.486
380	140	38.46	-9.168
380	130	39.68	-3.226
380	120	43.64	3.469
380	110	40.9	1.084
380	100	35.4	1.831
380	90	36.02	1.639
380	80	36.92	2.282
380	70	39.36	2.37
380	60	47.3	3.561
380	50	53.4	3.792
380	40	36.62	0.117
380	30	50.04	4.446
380	20	78.12	15.542
380	10	68.06	6.691
380	0	43.34	1.62
380	-10	40.9	0.975
380	-20	39.68	2.818
390			

TERRAIN CONDUCTIVITY DATA
FORMER LANDFILL AREA
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
390	330	23.8	-0.885
390	320	43.34	-0.597
390	310	49.44	0.461
390	300	48.82	0.689
390	290	48.52	0.606
390	280	49.14	0.578
390	270	50.96	0.933
390	260	53.4	0.972
390	250	59.5	1.107
390	240	74.16	1.01
390	230	16.48	0.85
390	220	85.44	1.203
390	210	68.06	1.846
390	200	62.56	9.551
390	190	77.52	5.697
390	180	91.56	5.868
390	170	58.28	12.74
390	160	62.86	1.828
390	150	39.98	1.379
390	140	36.92	-14.104
390	130	44.26	2.16
390	120	42.42	0.834
390	110	29.9	1.435
390	100	33.26	0.679
390	90	32.66	1.054
390	80	33.26	1.894
390	70	36.92	2.353
390	60	44.56	3.698
390	50	52.18	4.307
390	40	31.74	0.554
390	30	39.68	-0.51
390	20	54.94	3.535
390	10	52.5	3.706
390	0	42.12	2.263
390	-10	42.72	2.002
400			
400	0	43.64	1.962
400	10	48.82	2.866
400	20	50.36	3.18
400	30	36.62	1.216
400	40	32.34	1.321
400	50	50.04	4
400	60	41.8	3.989
400	70	34.8	2.66
400	80	32.34	1.712
400	90	32.96	1.547
400	100	34.48	1.267
400	110	34.18	1.221
400	120	41.5	3.221
400	130	45.16	0.396
400	140	56.16	3.222

TERRAIN CONDUCTIVITY DATA

FORMER LANDFILL AREA

Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
400	150	70.2	9.054
400	160	62.26	5.896
400	170	75.68	4.014
400	180	79.04	7.818
400	190	73.86	2.12
400	200	64.08	4.92
400	210	68.96	2.057
400	220	69.88	-1.141
400	230	18.92	0.461
400	240	69.28	1.19
400	250	57.06	1.058
400	260	52.5	0.824
400	270	49.44	0.832
400	280	48.52	1.021
400	290	49.14	0.828
400	300	49.14	0.687
400	310	48.22	0.565
400	320	48.22	0.812
400	330	44.86	0.202
400	340	33.88	-3.564
400	350	39.68	0.527
400	360	36.62	-1.203

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
0	0	50231.442
0	10	48891.326
0	20	47185.873
0	30	45931.418
0	40	46231.22
0	50	46862.901
0	60	47460.058
0	70	48577.867
0	80	49517.565
0	90	49002.414
0	100	47578.452
0	110	46178.96
0	120	45917.45
0	130	46283.592
0	140	47165.254
0	150	47759.818
0	160	48025.114
0	170	48108.927
0	180	48364.503
0	190	49093.074
0	200	48684.586
0	210	48602.077
0	220	47876.16
0	230	48017.11
0	240	47668.423
0	250	48590.244
0	260	59276.619
0	270	49877.743
0	280	48927.604
0	290	48666.609
0	300	49020.356
0	310	49322.252
0	320	49303.662
0	330	49384.199
0	340	49440.575
0	350	49429.488
0	360	49350.05
0	370	49344.77
0	380	49429.077
0	390	49401.941
0	400	49383.35
0	410	49477.621
0	420	49391.156
0	430	50315.688
0	440	49498.08
0	450	50043.335
0	460	51596.423
0	470	51334.5
0	480	48734.729
0	490	49470.754
0	500	48499.051

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
0	510	48356.329
0	520	49193.018
0	530	49314.201
0	540	49789.235
0	550	49946.865
0	560	49987.364
10	0	49487.862
10	10	49187.996
10	20	48647.114
10	30	47164.164
10	40	47689.246
10	50	48219.99
10	60	48403.092
10	70	49394.806
10	80	49989.399
10	90	48748.676
10	100	47094.075
10	110	45881.94
10	120	45348.393
10	130	45619.87
10	140	46804.329
10	150	47796.334
10	160	48226.498
10	170	48329.118
10	180	48490.764
10	190	48983.171
10	200	48604.298
10	210	47908.6
10	220	47608.426
10	230	47752.556
10	240	48494.423
10	250	49747.929
10	260	51177.038
10	270	52198.334
10	280	62314.223
10	290	44832.929
10	300	48801.602
10	310	49459.112
10	320	49251.098
10	330	49401.662
10	340	49530.985
10	350	49487.627
10	360	49456.894
10	370	49388.156
10	380	49369.91
10	390	48950.271
10	400	49337.03
10	410	48952.471
10	420	49142.814
10	430	49520.704
10	440	49902.98

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
10	450	49903.328
10	460	50291.023
10	470	50535.366
10	480	49726.297
10	490	49802.638
10	500	47825.543
10	510	47882.161
10	520	48201.663
10	530	48108.235
10	540	48051.752
10	550	50398.58
10	560	48923.592
10	570	44976.949
20	0	49883.863
20	10	49593.254
20	20	50416.59
20	30	49041.633
20	40	48975.51
20	50	49300.495
20	60	49568.242
20	70	49927.014
20	80	49450.833
20	90	48235.096
20	100	47222.993
20	110	46209.633
20	120	45319.468
20	130	45463.623
20	140	46382.821
20	150	47524.632
20	160	48197.723
20	170	48662.221
20	180	48772.477
20	190	48792.607
20	200	47998.018
20	210	47374.687
20	220	47315.242
20	230	48590.222
20	240	47364.698
20	250	49349.437
20	260	49970.759
20	270	50765.565
20	280	53132.144
20	290	39591.794
20	300	48583.645
20	310	48994.247
20	320	48712.256
20	330	49319.118
20	340	49614.331
20	350	49547.084
20	360	49355.344
20	370	49601.377

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
20	380	49494.46
20	390	48911.921
20	400	48141.524
20	410	48270.869
20	420	49426.822
20	430	49981.206
20	440	50409.114
20	450	50170.701
20	460	50138.966
20	470	51814.406
20	480	50614.817
20	490	49332.508
20	500	47606.846
20	510	44616.78
20	520	39354.37
20	530	44622.215
20	540	30805.588
20	550	0
20	560	42333.636
30	0	51155.058
30	10	49745.871
30	20	50238.33
30	30	50525.79
30	40	50226.894
30	50	50188.218
30	60	50227.518
30	70	49893.982
30	80	49052.976
30	90	47871.898
30	100	47428.37
30	110	46550.786
30	120	45482.883
30	130	44974.055
30	140	45923.088
30	150	47114.597
30	160	48120.155
30	170	48755.69
30	180	48976.355
30	190	48290.208
30	200	47345.184
30	210	46947.449
30	220	46787.068
30	230	47490.572
30	240	48599.71
30	250	49269.995
30	260	49205.572
30	270	49395.633
30	280	48572.236
30	290	47373.06
30	300	46418.645
30	310	46886.883

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
30	320	42887.494
30	330	47995.436
30	340	53365.313
30	350	49982.189
30	360	49969.766
30	370	51254.798
30	380	51272.333
30	390	50313.731
30	400	47573.598
30	410	45975.982
30	420	47134.096
30	430	51313.094
30	440	54760.257
30	450	57142.444
30	460	57135.239
30	470	56373.237
30	480	50824.237
30	490	55797.014
30	500	49251.71
30	510	48397.253
30	520	49115.294
30	530	48232.73
30	540	48861.788
30	550	50863.083
30	560	50786.514
40	0	53214.929
40	10	50247.138
40	20	49785.465
40	30	50781.068
40	40	50791.719
40	50	50602.237
40	60	50615.397
40	70	50008.494
40	80	48931.842
40	90	47888.095
40	100	47264.869
40	110	46503.586
40	120	45644.979
40	130	45038.457
40	140	45370.666
40	150	46713.495
40	160	47765.802
40	170	48629.69
40	180	48808.728
40	190	48015.439
40	200	46850.731
40	210	46351.337
40	220	46681.063
40	230	47929.691
40	240	48978.2
40	250	49359.983

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
40	260	49262.533
40	270	48890.383
40	280	48442.44
40	290	48276.995
40	300	48205.548
40	310	47291.328
40	320	48494.838
40	330	49848.326
40	340	51131.086
40	350	48072.871
40	360	51811.645
40	370	54117.908
40	380	63432.903
40	390	60663.102
40	400	51524.671
40	410	35175.001
40	420	39157.985
40	430	56317.514
40	440	57932.99
40	450	52726.097
40	460	50325.595
40	470	49811.362
40	480	49309.591
40	490	48905.52
40	500	48804.212
40	510	48883.669
40	520	49057.324
40	530	49507.515
40	540	49623.174
40	550	50066.977
40	560	50245.431
50	0	52600.054
50	10	50854.021
50	20	49799.15
50	30	50083.957
50	40	50652.4
50	50	50598.476
50	60	50863.776
50	70	50701.906
50	80	49367.002
50	90	47762.35
50	100	46902.495
50	110	46619.958
50	120	46146.711
50	130	45515.203
50	140	45372.36
50	150	46102.756
50	160	47380.736
50	170	48105.883
50	180	47794.073
50	190	47075.575

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
50	200	46570.596
50	210	46602.51
50	220	47261.725
50	230	48433.583
50	240	49311.658
50	250	49602.577
50	260	48947.163
50	270	48559.518
50	280	48368.318
50	290	48484.111
50	300	46723.54
50	310	48421.678
50	320	48583.857
50	330	48854.99
50	340	48670.323
50	350	48589.244
50	360	48821.458
50	370	49684.75
50	380	49314.102
50	390	47682.937
50	400	47136.71
50	410	47862.766
50	420	49503.255
50	430	50320.876
50	440	50133.237
50	450	49553.523
50	460	49877.083
50	470	49318.212
50	480	49185.713
50	490	48879.062
50	500	49191.041
50	510	49398.291
50	520	49466.365
50	530	49676.326
50	540	49366.019
50	550	49995.053
50	560	50233.792
60	0	52601.23
60	10	51442.168
60	20	50145.976
60	30	50241.234
60	40	50686.637
60	50	50782.859
60	60	50720.215
60	70	50639.574
60	80	49680.356
60	90	47800.251
60	100	46686.211
60	110	46538.51
60	120	46701.247
60	130	45953.783

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
60	140	45654.559
60	150	45365.596
60	160	46520.055
60	170	47109.51
60	180	46953.595
60	190	46560.11
60	200	46213.513
60	210	46634.205
60	220	47640.72
60	230	50155.304
60	240	49847.991
60	250	50096.685
60	260	48943.316
60	270	49585.967
60	280	48459.29
60	290	47328.254
60	300	47848.335
60	310	48498.47
60	320	48583.308
60	330	48376.185
60	340	48032.794
60	350	48071.786
60	360	48070.977
60	370	48232.76
60	380	48013.118
60	390	47874.215
60	400	47657.775
60	410	47695.939
60	420	48639.177
60	430	49491.69
60	440	49553.295
60	450	49384.724
60	460	49645.499
60	470	51110.704
60	480	48720.055
60	490	49033.855
60	500	49443.92
60	510	49620.005
60	520	49631.638
60	530	49617.936
60	540	49689.171
60	550	49983.421
60	560	50057.787
70	0	52762.37
70	10	51564.974
70	20	50840.429
70	30	49913.234
70	40	51534.955
70	50	51085.577
70	60	51089.601
70	70	51196.514

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
70	80	49158.428
70	90	47383.021
70	100	46501.191
70	110	47187.421
70	120	47194.342
70	130	46329.327
70	140	45612.021
70	150	45188.811
70	160	45900.741
70	170	46399.875
70	180	46433.119
70	190	46882.108
70	200	46740.639
70	210	47265.406
70	220	47594.528
70	230	49702.917
70	240	52577.983
70	250	50189.54
70	260	51548.486
70	270	51465.582
70	280	51577.738
70	290	46556.201
70	300	47050.524
70	310	49091.121
70	320	49283.139
70	330	48000.207
70	340	47534.044
70	350	47811.052
70	360	47086.459
70	370	47470.366
70	380	47569.91
70	390	47331.228
70	400	47141.968
70	410	46926.191
70	420	48418.743
70	430	49097.675
70	440	49273.604
70	450	49260.943
70	460	49406.063
70	470	49439.721
70	480	49269.423
70	490	49256.897
70	500	49532.278
70	510	49699.848
70	520	49674.253
70	530	49649.969
70	540	49674.791
70	550	49737.48
70	560	49939.055
80	0	53320.26
80	10	52221.292

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
80	20	50615.363
80	30	51155.626
80	40	52124.28
80	50	51717.349
80	60	50598.659
80	70	51832.879
80	80	49599.398
80	90	46750.915
80	100	45917.581
80	110	46595.626
80	120	48490.688
80	130	46223.24
80	140	45953.357
80	150	45731.42
80	160	45772.499
80	170	45917.052
80	180	46156.069
80	190	47870.167
80	200	48594.011
80	210	48079.606
80	220	47731.753
80	230	49337.031
80	240	50442.419
80	250	51800.301
80	260	51322.612
80	270	52274.358
80	280	53518.934
80	290	51100.618
80	300	47844.38
80	310	49646.445
80	320	51354.358
80	330	52304.418
80	340	49989.433
80	350	50383.807
80	360	48366.738
80	370	46472.095
80	380	47395.942
80	390	47055.312
80	400	46120.659
80	410	45397.918
80	420	48128.569
80	430	49331.007
80	440	49514.397
80	450	49438.387
80	460	49686.635
80	470	49370.958
80	480	49452.486
80	490	49279.057
80	500	49748.972
80	510	49674.141
80	520	49596.097

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
80	530	49640.443
80	540	49637.928
80	550	49518.361
80	560	49636.891
90	0	54068.018
90	10	52475.394
90	20	51922.697
90	30	53620.66
90	40	54527.62
90	50	54520.88
90	60	53400.258
90	70	51072.763
90	80	51892.119
90	90	47108.506
90	100	45474.256
90	110	45337.163
90	120	47919.024
90	130	46362.256
90	140	46065.006
90	150	46332.061
90	160	46138.656
90	170	46419.411
90	180	46622.331
90	190	47536.29
90	200	49765.51
90	210	48007.071
90	220	47482.401
90	230	49377.164
90	240	50214.36
90	250	51691.021
90	260	53755.998
90	270	52146.164
90	280	52294.317
90	290	54675.599
90	300	54854.388
90	310	53483.367
90	320	58130.522
90	330	55359.059
90	340	53542.11
90	350	50668.045
90	360	48969.955
90	370	46048.98
90	380	47187.975
90	390	46518.09
90	400	44467.109
90	410	44452.437
90	420	47340.108
90	430	49216.819
90	440	49850.442
90	450	49729.248
90	460	49611.444

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
90	470	49357.253
90	480	49290.478
90	490	49301.275
90	500	49190.266
90	510	49539.017
90	520	49642.024
90	530	49719.083
90	540	50115.641
90	550	49735.809
90	560	49840.995
100	0	53125.492
100	10	51974.8
100	20	52351.598
100	30	54370.943
100	40	54077.661
100	50	55827.737
100	60	57524.283
100	70	53796.111
100	80	52342.347
100	90	49523.596
100	100	46155.676
100	110	45110.528
100	120	46328.458
100	130	46528.327
100	140	45960.932
100	150	46433.098
100	160	46390.493
100	170	46660.988
100	180	47320.243
100	190	48614.523
100	200	50421.88
100	210	48640.069
100	220	48561.765
100	230	47851.584
100	240	49639.287
100	250	51176.077
100	260	52995.878
100	270	52783.917
100	280	51670.757
100	290	52702.541
100	300	51550.312
100	310	53484.784
100	320	60993.906
100	330	58402.324
100	340	51759.211
100	350	55109.573
100	360	52106.348
100	370	44657.335
100	380	44832.84
100	390	44153.273
100	400	41667.292

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
100	410	39477.389
100	420	43399.771
100	430	48571.267
100	440	50130.094
100	450	50366.874
100	460	49975.202
100	470	49372.52
100	480	49262.577
100	490	49248.31
100	500	49352.543
100	510	49573.096
100	520	49628.503
100	530	49670.227
100	540	49747.311
100	550	49765.225
100	560	49803.174
110	10	53120.195
110	20	51907.832
110	30	51761.827
110	40	56910.445
110	50	53612.839
110	60	55800.462
110	70	56202.245
110	80	59767.293
110	90	53641.089
110	100	49741.271
110	110	48407.574
110	120	45337.109
110	130	44997.697
110	140	45539.461
110	150	45877.146
110	160	46439.85
110	170	46872.252
110	180	47430.774
110	190	48334.233
110	200	49881.448
110	210	51074.968
110	220	50108.983
110	230	47573.245
110	240	48044.716
110	250	49511.056
110	260	49948.997
110	270	52705.055
110	280	52250.054
110	290	51682.701
110	300	51011.037
110	310	50198.907
110	320	53102.737
110	330	57703.275
110	340	59996.276
110	350	60400.193

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
110	360	51439.457
110	370	48580.286
110	380	45629.822
110	390	44441.809
110	400	40014.823
110	410	35269.131
110	420	34710.414
110	430	42275.194
110	440	48040.062
110	450	50182.811
110	460	50645.868
110	470	50290.671
110	480	49699.121
110	490	49231.146
110	500	49305.144
110	510	49277.276
110	520	49397.312
110	530	49362.671
110	540	49677.649
110	550	49704.659
110	560	49835.009
120	10	51352.154
120	20	51140.637
120	30	53327.239
120	40	54801.002
120	50	55030.215
120	60	54318.171
120	70	55848.962
120	80	53637.774
120	90	50841.425
120	100	48559.957
120	110	46346.244
120	120	45130.664
120	130	45267.095
120	140	45791.588
120	150	46512.751
120	160	47251.929
120	170	48426.175
120	180	50129.27
120	190	52535.636
120	200	52222.14
120	210	51426.468
120	220	49772.533
120	230	49527.664
120	240	49477.358
120	250	49388.107
120	260	51348.403
120	270	50438.557
120	280	50998.096
120	290	49046.838
120	300	53312.019

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
120	310	52999.627
120	320	56242.971
120	330	61203.393
120	340	59353.04
120	350	58213.113
120	360	55543.618
120	370	46601.368
120	380	46118.399
120	390	39404.81
120	400	33476.184
120	410	33693.167
120	420	40449.109
120	430	47035.248
120	440	49649.341
120	450	50495.17
120	460	50481.933
120	470	49901.121
120	480	49425.507
120	490	49027.878
120	500	49898.297
120	510	48996.382
120	520	49535.318
120	530	49531.601
120	540	49717.384
120	550	49821.851
120	560	49676.149
130	0	50921.254
130	10	50897.82
130	20	51771.457
130	30	53332.81
130	40	55430.44
130	50	54469.77
130	60	52291.865
130	70	53259.318
130	80	52706.876
130	90	50708.706
130	100	48582.699
130	110	46776.329
130	120	45649.096
130	130	45878.303
130	140	46240.873
130	150	46959.336
130	160	47895.828
130	170	49669.266
130	180	52186.899
130	190	56940.115
130	200	52954.027
130	210	51211.067
130	220	48951.003
130	230	49693.367
130	240	49990.437

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
130	250	49272.338
130	260	50736.52
130	270	51925.344
130	280	51906.002
130	290	49136.831
130	300	54213.894
130	310	53616.118
130	320	57279.09
130	330	59506.327
130	340	61803.004
130	350	57388.405
130	360	53120.156
130	370	44343.113
130	380	42699.343
130	390	39126.551
130	400	33469.675
130	410	35058.372
130	420	41392.186
130	430	47229.29
130	440	49805.186
130	450	50483.762
130	460	50307.042
130	470	49966.372
130	480	49667.542
130	490	49578.717
130	500	49674.29
130	510	48660.605
130	520	48867.16
130	530	49408.922
130	540	49679.993
130	550	50157.127
130	560	49526.052
140	0	51017.306
140	10	53788.369
140	20	55386.847
140	30	55126.001
140	40	53770.37
140	50	52395.589
140	60	52538.198
140	70	52093.316
140	80	50671.099
140	90	48895.301
140	100	47227.404
140	110	46317.106
140	120	46607.131
140	130	47474.195
140	140	48300.868
140	150	48940.927
140	160	50587.875
140	170	52327.63
140	180	55609.905

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
140	190	54085.616
140	200	51145.238
140	210	48484.247
140	220	50039.047
140	230	50292.782
140	240	50583.23
140	250	49926.924
140	260	51294.222
140	270	51898.644
140	280	49781.57
140	290	51628.022
140	300	51708.466
140	310	56818.043
140	320	57422.797
140	330	58749.696
140	340	59612.12
140	350	51553.015
140	360	46734.216
140	370	41018.891
140	380	40259.982
140	390	37093.699
140	400	33675.143
140	410	40219.605
140	420	45169.155
140	430	48637.486
140	440	49801.357
140	450	50043.949
140	460	50226.662
140	470	50228.301
140	480	50436.519
140	490	49717.077
140	500	48021.05
140	510	48510.925
140	520	49369.407
140	530	49668.857
140	540	49830.747
150	0	51220.582
150	10	51611.468
150	20	53933.956
150	30	55536.457
150	40	54342.751
150	50	53421.459
150	60	53359.718
150	70	53181.483
150	80	51967.009
150	90	50669.076
150	100	49461.922
150	110	47994.809
150	120	47470.321
150	130	47672.854
150	140	47846.993

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
150	150	49009.706
150	160	50194.166
150	170	50813.145
150	180	51135.275
150	190	51877.872
150	200	54102.031
150	210	52543.77
150	220	50194.28
150	230	52209.797
150	240	50832.721
150	250	49834.885
150	260	51248.444
150	270	53565.472
150	280	52692.108
150	290	50757.549
150	300	52889.354
150	310	52583.244
150	320	54297.965
150	330	54816.465
150	340	53009.015
150	350	55870.376
150	360	51664.189
150	370	47579.857
150	380	43219.734
150	390	42042.863
150	400	36162.188
150	410	35896.957
150	420	40889.304
150	430	45533.354
150	440	48561.286
150	450	49537.49
150	460	49603.685
150	470	50573.627
150	480	50218.761
150	490	50703.504
150	500	49068.679
150	510	49692.42
150	520	48715.115
150	530	49425.034
150	540	49767.794
150	550	49600.964
160	0	50072.979
160	10	52531.994
160	20	53764.1
160	30	53619.931
160	40	53981.895
160	50	53802.966
160	60	53854.519
160	70	52228.07
160	80	51255.15
160	90	49624.51

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
160	100	48392.369
160	110	48227.808
160	120	48724.266
160	130	48307.6
160	140	49503.853
160	150	51223.891
160	160	50919.901
160	170	50537.264
160	180	50868.108
160	190	51806.392
160	200	52683.863
160	210	53949.102
160	220	53898.393
160	230	51534.513
160	240	51301.63
160	250	53632.439
160	260	52955.121
160	270	51395.916
160	280	52541.417
160	290	56472.158
160	300	51860.837
160	310	55122.167
160	320	53689.609
160	330	53887.543
160	340	55330.689
160	350	51673.721
160	360	47059.05
160	370	44943.669
160	380	43114.322
160	390	39621.859
160	400	37466.654
160	410	41351.293
160	420	45424.885
160	430	48012.699
160	440	48854.422
160	450	49170.071
160	460	50146.941
160	470	50385.681
160	480	50479.073
160	490	49702.911
160	500	48950.968
160	510	48651.061
160	520	49397.722
160	530	53658.963
160	540	52688.099
160	550	50534.943
170	0	49863.968
170	10	49245.814
170	20	51749.371
170	30	52630.501
170	40	53319.549

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
170	50	55965.074
170	60	54311.283
170	70	53111.763
170	80	52455.799
170	90	51070.643
170	100	49845.093
170	110	48934.803
170	120	48919.915
170	130	48631.248
170	140	48878.989
170	150	50294.211
170	160	50465.262
170	170	50509.797
170	180	50439.636
170	190	50461.772
170	200	51730.225
170	210	53723.998
170	220	54301.173
170	230	52716.036
170	240	51457.446
170	250	54644.586
170	260	53959.864
170	270	49958.861
170	280	51168.042
170	290	55664.418
170	300	59117.97
170	310	55825.132
170	320	53911.931
170	330	52758.917
170	340	54320.572
170	350	53102.856
170	360	51093.236
170	370	47876.132
170	380	44971.171
170	390	43355.083
170	400	40554.565
170	410	39207.903
170	420	42734.668
170	430	46569.255
170	440	48464.964
170	450	48093.086
170	460	48301.381
170	470	49604.185
170	480	50470.334
170	490	50384.377
170	500	49555.878
170	510	48736.789
170	520	48360.58
170	530	49225.713
170	540	49390.209
170	550	49860.356

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
180	0	48436.899
180	10	49265.024
180	20	50319.156
180	30	52223.685
180	40	52299.489
180	50	53327.255
180	60	53841.747
180	70	53188.889
180	80	52723.813
180	90	51515.797
180	100	49954.488
180	110	49327.808
180	120	48807.021
180	130	48695.807
180	140	49252.071
180	150	49975.595
180	160	50195.085
180	170	50221.402
180	180	50407.03
180	190	50541.564
180	200	51199.462
180	210	52653.466
180	220	52469.285
180	230	51049.018
180	240	52738.74
180	250	54984.969
180	260	53534.815
180	270	49146.063
180	280	49146.64
180	290	52964.919
180	300	55789.086
180	310	53301.233
180	320	52078.715
180	330	50838.623
180	340	52206.24
180	350	52950.166
180	360	51932.376
180	370	49489.019
180	380	47462.227
180	390	44636.775
180	400	42443.148
180	410	41619.988
180	420	44828.024
180	430	47987.021
180	440	48502.572
180	450	47261.269
180	460	46997.992
180	470	48717.672
180	480	49959.42
180	490	50543.641
180	500	49152.196

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
180	510	48703.099
180	520	48575.986
180	530	49257.72
180	540	49635.401
180	550	49799.88
180	560	49688.896
190	0	49116.555
190	10	50280.802
190	20	49953.132
190	30	50411.797
190	40	51534.993
190	50	52257.542
190	60	52308.104
190	70	51654.901
190	80	52079.691
190	90	51257.877
190	100	50638.475
190	110	50129.344
190	120	49061.562
190	130	48912.254
190	140	49036.356
190	150	49490.027
190	160	49241.877
190	170	50098.072
190	180	50384.724
190	190	50437.874
190	200	50766.791
190	210	51265.185
190	220	51590.829
190	230	50001.748
190	240	54774.082
190	250	53576.871
190	260	52031.935
190	270	48942.191
190	280	48682.52
190	290	52075.157
190	300	54283.876
190	310	53764.175
190	320	52018.26
190	330	51454.335
190	340	51935.059
190	350	53260.01
190	360	51839.255
190	370	50879.597
190	380	50158.25
190	390	47619.885
190	400	45388.591
190	410	44938.97
190	420	46878.202
190	430	47901.427
190	440	47530.803

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
190	450	46608.898
190	460	45794.281
190	470	47690.997
190	480	49585.821
190	490	49607.896
190	500	48634.887
190	510	48311.365
190	520	48609.466
190	530	49354.507
190	540	49651.053
190	550	49722.022
190	560	49698.564
200	0	49228.142
200	10	56076.795
200	20	49840.067
200	30	49828.008
200	40	50299.301
200	50	51899.83
200	60	54764.212
200	70	53229.821
200	80	53497.3
200	90	52494.125
200	100	52310.17
200	110	51035.95
200	120	50273.405
200	130	48989.808
200	140	48683.905
200	150	49051.912
200	160	49021.636
200	170	49782.322
200	180	49945.494
200	190	50073.344
200	200	50489.82
200	210	50959.449
200	220	51589.367
200	230	52386.818
200	240	52296.656
200	250	54310.086
200	260	54849.7
200	270	51781.943
200	280	51311.122
200	290	51848.956
200	300	53258.546
200	310	52242.766
200	320	51808.423
200	330	51680.844
200	340	51331.192
200	350	52593.914
200	360	51627.136
200	370	51546.713
200	380	50451.277

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
200	390	47871.269
200	400	46523.909
200	410	46207.934
200	420	47027.234
200	430	47366.612
200	440	46596.989
200	450	45863.532
200	460	45466.678
200	470	47583.847
200	480	49315.518
200	490	48921.242
200	500	48454.905
200	510	48517.635
200	520	48909.655
200	530	49503.226
200	540	49726.804
200	550	49792.817
200	560	49522.168
210	20	49500.176
210	30	49756.557
210	40	49965.808
210	50	50532.542
210	60	52260.297
210	70	54502.21
210	80	54297.042
210	90	53635.021
210	100	52635.964
210	110	50967.935
210	120	50312.654
210	130	49038.598
210	140	48455.452
210	150	48528.11
210	160	48933.122
210	170	49680.178
210	180	50001.156
210	190	49798.314
210	200	50197.372
210	210	50548.449
210	220	50886.078
210	230	51274.827
210	240	52699.845
210	250	53418.479
210	260	54779.458
210	270	53745.869
210	280	52299.226
210	290	51950.681
210	300	52690.005
210	310	51762.977
210	320	51900.949
210	330	52088.868
210	340	51509.947

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
210	350	51167.748
210	360	50906.916
210	370	50845.435
210	380	49725.524
210	390	48013.447
210	400	46607.684
210	410	46214.164
210	420	46713.102
210	430	46790.011
210	440	45893.601
210	450	45156.401
210	460	45062.8
210	470	46709.091
210	480	48997.677
210	490	48700.313
210	500	48393.451
220	490	48009.735
220	500	47977.467
220	510	47287.635
220	520	49200.846
220	530	49589.662
220	540	49770.687
220	550	49780.287
220	560	49647.439
230	0	49457.84
230	10	49238.993
230	20	49994.93
230	30	50206.921
230	40	50639.883
230	50	53655.16
230	60	53578.642
230	70	58879.812
230	80	57596.788
230	90	55383.019
230	100	52901.934
230	110	51043.689
230	120	50466.738
230	130	50077.457
230	140	50811.792
230	150	52447.97
230	160	52030.18
230	170	51384.404
230	180	51396.466
230	190	51260.721
230	200	50896.019
230	210	50800.578
230	220	50831.467
230	230	51060.741
230	240	51453.431
230	250	53828.681
230	260	50134.478

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
230	270	49700.537
230	280	49470.684
230	290	51114.657
230	300	53010.894
230	310	53780.209
230	320	53707.273
230	330	52171.128
230	340	50786.047
230	350	49792.625
230	360	49490.51
230	370	49247.082
230	380	47805.368
230	390	47078.586
230	400	46336.683
230	410	45920.275
230	420	46326.05
230	430	45996.793
230	440	45454.698
230	450	44535.316
230	460	44546.736
230	470	46324.662
230	480	49372.936
230	490	48163.955
240	0	49344.546
240	10	50564.467
240	20	48510.097
240	30	50055.731
240	40	51248.808
240	50	56323.111
240	60	60675.628
240	70	64694.402
240	80	60484.15
240	90	58937.13
240	100	54232.741
240	110	50323.57
240	120	50178.54
240	130	49934.297
240	140	50672.096
240	150	51377.793
240	160	50939.587
240	170	53036.291
240	180	53209.501
240	190	52307.853
240	200	51759.127
240	210	50942.254
240	220	51547.887
240	230	51708.649
240	240	52658.593
240	250	50880.641
240	260	49334.785
240	270	48493.009

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
240	280	50666.778
240	290	52391.079
240	300	53456.041
240	310	53546.449
240	320	52367.163
240	330	50807.659
240	340	49616.895
240	350	49038.663
240	360	48705.85
240	370	47557.066
240	380	46598.782
240	390	46404.747
240	400	46360.113
240	410	46429.514
240	420	46167.255
240	430	45525.816
240	440	44762.556
240	450	44609.582
240	460	46233.482
240	470	48124.604
240	480	48466.906
240	490	49497.583
240	500	47913.035
240	510	48982.065
240	520	49644.137
240	530	49739.513
240	540	49784.874
240	550	49683.413
250	0	49573.512
250	10	49688.405
250	20	48194.892
250	30	50078.839
250	40	51080.481
250	50	52793.51
250	60	54013.105
250	70	54712.271
250	80	54570.797
250	90	53364.296
250	100	51931.443
250	110	50568.555
250	120	49977.611
250	130	49911.589
250	140	49769.234
250	150	50351.286
250	160	50759.254
250	170	50799.55
250	180	52475.086
250	190	54195.606
250	200	54526.943
250	210	52176.015
250	220	50962.236

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
250	230	51297.754
250	240	51857.951
250	250	50873.749
250	260	50091.332
250	270	48680.632
250	280	48100.432
250	290	50628.866
250	300	52141.244
250	310	52487.255
250	320	52436.308
250	330	51799.427
250	340	50671.901
250	350	49493.945
250	360	48746.435
250	370	47826.328
250	380	46896.352
250	390	46591.953
250	400	46849.675
250	410	46822.567
250	420	46567.976
250	430	46208.305
250	440	45481.576
250	450	45028.248
250	460	45242.998
250	470	46402.445
250	480	48407.125
250	490	48708.886
260	0	49706.561
260	10	47730.201
260	20	50323.692
260	30	49145.328
260	40	50803.466
260	50	50952.368
260	60	51507.913
260	70	51405.215
260	80	50631.441
260	90	50588.68
260	100	50472.435
260	110	50731.844
260	120	50197.089
260	130	49728.291
260	140	49729.96
260	150	50304.194
260	160	50416.696
260	170	50710.233
260	180	52374.002
260	190	54991.856
260	200	55486.041
260	210	52525.133
260	220	50970.12
260	230	50406.108

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
260	240	52026.705
260	250	51092.642
260	260	49188.945
260	270	47659.595
260	280	47546.41
260	290	49610.74
260	300	51464.223
260	310	51461.777
260	320	51601.698
260	330	51241.36
260	340	50853.916
260	350	50075.3
260	360	49192.577
260	370	48520.659
260	380	47740.466
260	390	47083.567
260	400	47441.083
260	410	47441.919
260	420	47175.521
260	430	46823.239
260	440	45410.32
260	450	45064.262
260	460	45709.625
260	470	47442.077
260	480	48987.865
260	490	49408.398
260	500	48784.613
260	510	48544.983
260	520	49318.906
260	530	49592.36
260	540	49146.313
260	550	49413.088
260	560	49589.488
270	50	50156.832
270	60	50776.431
270	70	51153.916
270	80	50400.62
270	90	50617.975
270	100	50573.666
270	110	50278.613
270	120	49898.207
270	130	49676.658
270	140	49662.832
270	150	49914.775
270	160	50248.399
270	170	50963.683
270	180	52310.728
270	190	54571.044
270	200	54880.148
270	210	52276.855
270	220	50702.028

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
270	230	49811.079
270	240	50241.191
270	250	50716.905
270	260	48926.224
270	270	48042.859
270	280	47894.346
270	290	49154.162
270	300	50502.036
270	310	50976.223
270	320	50763.351
270	330	50455.378
270	340	50107.817
270	350	48953.7
270	360	48731.43
270	370	48150.534
270	380	47738.541
270	390	47912.535
270	400	48329.075
270	410	47953.758
270	420	47206.489
270	430	46619.299
270	440	45647.411
270	450	45699.33
270	460	46191.388
270	470	47804.073
270	480	49436.262
270	490	49866.554
280	0	48035.812
280	10	54305.11
280	20	51502.231
280	30	46868.665
280	40	49184.339
280	50	49855.103
280	60	49559.778
280	70	49938.158
280	80	49930.229
280	90	49902.476
280	100	49898.457
280	110	49804.406
280	120	49723.344
280	130	49729.298
280	140	49814.926
280	150	50064.084
280	160	50530.983
280	170	51393.588
280	180	52923.255
280	190	54221.136
280	200	53460.946
280	210	51940.505
280	220	50185.112
280	230	49309.618

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
280	240	49213.409
280	250	49303.152
280	260	48781.935
280	270	48754.613
280	280	49065.108
280	290	49515.957
280	300	50600.893
280	310	50958.66
280	320	51412.852
280	330	50745.667
280	340	49975.006
280	350	49327.6
280	360	49174.462
280	370	48505.857
280	380	48298.888
280	390	48612.653
280	400	48910.895
280	410	48627.098
280	420	47649.645
280	430	46470.885
280	440	46064.048
280	450	46408.04
280	460	46896.746
280	470	48241.929
280	480	49125.001
280	490	49536.502
280	500	49298.01
280	510	49211.437
280	520	49529.459
280	530	50018.549
280	540	48953.223
280	550	50191.064
280	560	50340.109
290	0	49358.906
290	10	49680.462
290	20	49549.724
290	30	49149.348
290	40	49007.945
290	50	49704.919
290	60	49514.098
290	70	49507.839
290	80	49671.843
290	90	49694.924
290	100	49732.169
290	110	49768.592
290	120	49852.475
290	130	50077.035
290	140	50516.869
290	150	50961.335
290	160	51480.291
290	170	51903.649

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
290	180	53215.306
290	190	53723.496
290	200	52479.93
290	210	50709.913
290	220	49488.867
290	230	48774.764
290	240	48570.358
290	250	48488.027
290	260	48508.853
290	270	48728.196
290	280	48875.885
290	290	48951.183
290	300	49725.125
290	310	50394.628
290	320	51667.099
290	330	51947.194
290	340	50461.376
290	350	48924.263
290	360	50003.009
290	370	49479.618
290	380	48810.857
290	390	49212.256
290	400	49013.568
290	410	48393.777
290	420	48598.142
290	430	47443.685
290	440	46251.382
290	450	47323.146
290	460	47621.042
290	470	48591.319
290	480	48960.521
290	490	49062.463
300	0	49639.191
300	10	49700.724
300	20	49677.218
300	30	49805.755
300	40	50422.459
300	50	49868.858
300	60	49516.342
300	70	50203.82
300	80	49665.945
300	90	49707.487
300	100	49712.313
300	110	49855.202
300	120	49986.671
300	130	50586.617
300	140	52228.18
300	150	52573.444
300	160	52359.608
300	170	52085.931
300	180	52398.978

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
300	190	52486.146
300	200	51128.153
300	210	49734.805
300	220	48770.251
300	230	48310.665
300	240	48193.972
300	250	48321.139
300	260	48426.063
300	270	48484.16
300	280	48349.563
300	290	48194.575
300	300	48723.157
300	310	49639.03
300	320	51162.447
300	330	51064.101
300	340	51564.83
300	350	49749.442
300	360	50605.129
300	370	49120.869
300	380	48918.55
300	390	49447.905
300	400	48602.162
300	410	47969.368
300	420	47502.004
300	430	49309.742
300	440	46099.62
300	450	47474.371
300	460	47926.473
300	470	48667.808
300	480	49023.61
300	490	49577.542
300	500	49176.341
300	510	49439.931
300	520	49589.5
300	530	49624.077
300	540	49575.151
300	550	49414.419
310	0	49632.636
310	10	50085.06
310	20	49641.819
310	30	49777.538
310	40	50430.58
310	50	49696.94
310	60	49562.848
310	70	49751.278
310	80	49717.476
310	90	49687.755
310	100	49834.864
310	110	49901.059
310	120	50341.148
310	130	51289.84

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
310	140	53245.142
310	150	53116.623
310	160	52675.264
310	170	52254.139
310	180	52030.544
310	190	51324.228
310	200	49990.472
310	210	48924.839
310	220	48469.142
310	230	48275.49
310	240	48199.566
310	250	48862.583
310	260	49010.408
310	270	48560.28
310	280	48381.564
310	290	48168.365
310	300	48314.305
310	310	48924.606
310	320	49808.131
310	330	49533.964
310	340	50040.985
310	350	49238.712
310	360	49554.306
310	370	48337.661
310	380	48395.066
310	390	48773.109
310	400	48398.367
310	410	47968.644
310	420	47892.144
310	430	48047.695
310	440	46720.122
310	450	48215.773
310	460	48441.333
310	470	48739.876
310	480	49111.059
320	0	49604.184
320	10	49516.836
320	20	50228.846
320	30	49562.462
320	40	50732.944
320	50	49977.273
320	60	49453.739
320	70	49601.627
320	80	49647.095
320	90	49730.017
320	100	49886.206
320	110	50039.77
320	120	50405.521
320	130	51259.972
320	140	53089.225
320	150	53577.549

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
320	160	53352.892
320	170	52694.73
320	180	51818.569
320	190	50682.091
320	200	49432.637
320	210	48543.071
320	220	48185.563
320	230	48456.362
320	240	51232.813
320	250	48948.334
320	260	49000.113
320	270	49074.547
320	280	48805.368
320	290	48605.777
320	300	48151.438
320	310	48369.312
320	320	49365.895
320	330	51143.115
320	340	48248.078
320	350	48721.846
320	360	48716.667
320	370	48310.201
320	380	48494.774
320	390	49016.644
320	400	48862.905
320	410	48527.43
320	420	48306.718
320	430	47667.746
320	440	48146.443
320	450	48665.402
320	460	48301.08
320	470	49064.221
320	480	49058.933
320	490	49041.741
320	500	49392.138
320	510	49560.389
320	520	49585.897
320	530	49615.858
320	540	49618.492
320	550	49271.133
330	0	49564.263
330	10	49425.234
330	20	49023.217
330	30	49199.606
330	40	47225.277
330	50	49571.659
330	60	49690.982
330	70	49673.491
330	80	49658.535
330	90	49766.11
330	100	49993.496

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
330	110	50436.124
330	120	50858.685
330	130	51625.865
330	140	54604.202
330	150	55324.677
330	160	53437.78
330	170	52370.458
330	180	50695.074
330	190	49353.005
330	200	48729.383
330	210	47849.491
330	220	48037.263
330	230	48349.869
330	240	48858.466
330	250	48867.018
330	260	48684.309
330	270	49691.607
330	280	49787.346
330	290	49019.834
330	300	48634.673
330	310	48428.094
330	320	49093.67
330	330	49205.038
330	340	48169.116
330	350	49460.7
330	360	48738.796
330	370	48949.006
330	380	49358.663
330	390	49359.792
330	400	49553.212
330	410	49392.762
330	420	48309.868
330	430	48032.302
330	440	48836.654
330	450	48544.669
330	460	48440.745
330	470	48852.901
340	0	49143.159
340	10	49186.965
340	20	48921.952
340	30	48967.602
340	40	49440.308
340	50	49853.062
340	60	49677.052
340	70	49756.817
340	80	49675.177
340	90	49839.092
340	100	50061.051
340	110	50404.007
340	120	51003.757
340	130	54563.175

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
340	140	60661.119
340	150	57605.389
340	160	54365.254
340	170	51154.194
340	180	49324.542
340	190	48094.335
340	200	47334.095
340	210	47277.005
340	220	46865.492
340	230	48070.115
340	240	48475.351
340	250	48604.742
340	260	49630.243
340	270	49664.853
340	280	49621.782
340	290	49667.976
340	300	48793.719
340	310	48142.892
340	320	48611.023
340	330	48557.247
340	340	48411.415
340	350	49095.63
340	360	48956.492
340	370	49222.433
340	380	49194.022
340	390	49389.625
340	400	49785.838
340	410	49774.218
340	420	50618.304
340	430	53704.297
340	440	48004.013
340	450	48193.309
340	460	48295.149
340	470	48840.138
340	480	49176.617
340	490	49401.899
340	500	49503.896
340	510	49619.478
340	520	49674.986
340	530	49614.542
340	540	49637.839
340	550	49293.135
350	0	49183.38
350	10	48755.048
350	20	47159.382
350	30	46101.003
350	40	47291.683
350	50	49691.525
350	60	49690.723
350	70	49652.04
350	80	49753.56

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
350	90	49908.307
350	100	50026.382
350	110	50289.544
350	120	51482.418
350	130	57464.884
350	140	63318.688
350	150	56220.603
350	160	52994.911
350	170	52208.724
350	180	49191.497
350	190	47452.329
350	200	47094.018
350	210	46611.254
350	220	46508.111
350	230	47467.813
350	240	48300.578
350	250	48500.635
350	260	49062.457
350	270	49904.775
350	280	49739.591
350	290	49357.367
350	300	48332.844
350	310	48223.373
350	320	48479.354
350	330	48501.915
350	340	48523.652
350	350	47206.568
350	360	48707.066
350	370	49030.535
350	380	48780.067
350	390	49265.997
350	400	49698.898
350	410	51937.33
350	420	50586.705
350	430	48733.375
350	440	48194.14
350	450	48157.699
360	0	50330.375
360	10	53900.117
360	20	50583.181
360	30	49336.329
360	40	48790.02
360	50	49879.84
360	60	49999.806
360	70	49744.902
360	80	49703.262
360	90	49951.871
360	100	49973.782
360	110	50361.634
360	120	51067.639
360	130	57223.619

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
360	140	55529.847
360	150	53002.689
360	160	53037.684
360	170	51476.022
360	180	48773.659
360	190	47735.368
360	200	46533.49
360	210	46309.715
360	220	46831.426
360	230	46696.131
360	240	47920.803
360	250	48440.06
360	260	48928.035
360	270	48680.225
360	280	49453.021
360	290	48594.43
360	300	48743.656
360	310	48643.964
360	320	48526.438
360	330	48387.203
360	340	48560.199
360	350	48701.675
360	360	48163.394
360	370	48968.567
360	380	49111.511
360	390	49735.414
360	400	50102.005
360	410	49854.158
360	420	49719.498
360	430	48304.09
360	440	48214.205
360	450	48541.217
360	460	49870.718
360	470	49261.451
360	480	48988.671
360	490	49298.855
360	500	49422.267
360	510	49579.263
360	520	49702.78
360	530	50591.472
360	540	49442.406
370	0	50516.892
370	10	53293.619
370	20	49640.944
370	30	48367.224
370	40	49312.83
370	50	50045.457
370	60	49463.974
370	70	50151.249
370	80	49413.346
370	90	50461.077

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
370	100	51099.981
370	110	51863.539
370	120	51305.443
370	130	54117.777
370	140	52839.312
370	150	53908.47
370	160	51641.524
370	170	49829.6
370	180	48276.214
370	190	48004.037
370	200	46290.741
370	210	46658.234
370	220	46795.829
370	230	46999.379
370	240	48037.292
370	250	49031.296
370	260	48776.617
370	270	48374.776
370	280	49730.106
370	290	49279.427
370	300	49098.061
370	310	48572.379
370	320	48616.693
370	330	48421.254
370	340	48999.825
380	0	49878.227
380	10	49859.744
380	20	48149.892
380	30	48734.974
380	40	49473.141
380	50	49645.179
380	60	49484.041
380	70	49656.689
380	80	49891.817
380	90	50153.348
380	100	50841.772
380	110	50510.795
380	120	51078.253
380	130	51901.649
380	140	51912.837
380	150	53197.315
380	160	51168.551
380	170	49281.516
380	180	47834.382
380	190	47697.896
380	200	47726.996
380	210	46910.299
380	220	46548.419
380	230	47935.054
380	240	48584.628
380	250	48887.143

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
380	260	48848.032
380	270	48909.941
380	280	49310.491
380	290	48779.072
380	300	48629.429
380	310	48696.318
380	320	49379.046
380	330	48381.494
380	340	48250.013
380	350	48217.467
380	360	48824.613
380	370	49079.933
380	380	49260.917
380	390	48907.129
380	400	49363.355
380	410	48798.983
380	420	48769.257
380	430	48866.129
380	440	48488.277
380	450	49239.972
380	460	49664.776
380	470	49267.171
380	480	50213.348
380	490	48979.326
380	500	49566.394
380	510	49552.178
380	520	49575.867
380	530	49544.153
380	540	49572.565
380	550	49131.084
390	0	49537.918
390	10	49223.199
390	20	49341.577
390	30	49368.595
390	40	49520.487
390	50	49675.471
390	60	49722.435
390	70	49641.707
390	80	49855.572
390	90	50013.385
390	100	50235.125
390	110	50026.724
390	120	50847.117
390	130	51850.533
390	140	52034.127
390	150	51541.716
390	160	50921.793
390	170	49228.649
390	180	47717.523
390	190	48485.403
390	200	47988.738

TOTAL MAGNETIC INTENSITY

FORMER LANDFILL AREA

Hercules, Incorporated

Hattiesburg, Mississippi

East	North	Magnetic Intensity(nT)
390	210	46549.688
390	220	47388.219
390	230	48468.364
390	240	48921.911
390	250	48832.396
390	260	48867.62
390	270	48864.626
390	280	48842.203
390	290	48772.627
390	300	48843.504
390	310	49033.027
390	320	50544.454
390	330	51615.614
400	0	49426.975
400	10	49429.637
400	20	49473.529
400	30	49532.644
400	40	49616.001
400	50	49589.639
400	60	49659.461
400	70	49508.141
400	80	49749.256
400	90	49785.667
400	100	49714.91
400	110	50347.097
400	120	50159.987
400	130	51744.367
400	140	50743.657
400	150	50055.915
400	160	50494.469
400	170	48908.301
400	180	47816.571
400	190	48048.423
400	200	47290.318
400	210	47099.935
400	220	48053.119
400	230	48741.101
400	240	48930.959
400	250	48841.743
400	260	48847.31
400	270	48837.753
400	280	48899.399
400	290	48839.484
400	300	49005.623
400	310	50942.915
400	320	49230.779
400	330	48944.269
400	340	49233.013
400	350	49563.297
400	360	49123.584

TERRAIN CONDUCTIVITY DATA

SMALL GEOPHYSICS GRID

Hercules, Incorporated

Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
0			
0	0	46.052	1.368
0	10	28.228	-0.424
0	20	44.25	1.017
0	30	57.098	2.274
0	40	45.776	1.995
0	50	42.51	1.819
0	60	41.474	1.335
0	70	41.046	2.12
0	80	27.648	-4.251
0	90	34.118	-1.414
0	100	41.748	1.405
0	110	42.664	0.85
0	120	41.87	1.017
0	130	41.474	0.799
0	140	41.32	0.371
0	150	40.924	0.758
0	160	45.716	0.657
0	170	49.836	0.525
0	180	49.926	0.553
0	190	51.758	0.617
0	200	55.512	0.452
20			
20	200	51.392	1.115
20	190	46.936	0.988
20	180	45.532	0.911
20	170	44.616	1.315
20	160	42.054	-0.045
20	150	40.04	-0.913
20	140	39.826	-2.416
20	130	39.886	-2.17
20	120	45.806	-0.123
20	110	47.18	1.999
20	100	47.18	2.098
20	90	47.242	1.455
20	80	47.12	0.35
20	70	48.126	2.021
20	60	44.77	1.721
20	50	44.068	2.177
20	40	49.438	1.962
20	30	53.986	2.792
20	20	38.97	0.905
20	10	75.408	3.256
20	0	72.814	3.891
40			
40	0	69.854	5.438
40	10	61.768	4.213
40	20	42.968	2.291
40	30	56.152	3.342
40	40	51.88	2.623
40	50	48.34	-1.526

TERRAIN CONDUCTIVITY DATA

SMALL GEOPHYSICS GRID

Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
40	60	32.592	-8.123
40	70	39.032	-0.771
40	80	41.718	2.236
40	90	41.688	2.274
40	100	40.222	1.837
40	110	40.954	1.541
40	120	41.442	1.468
40	130	42.388	2.168
40	140	43.854	1.251
40	150	46.784	1.343
40	160	44.068	1.218
40	170	44.952	1.067
40	180	44.556	0.951
40	190	45.104	1.034
40	200	48.676	1.196
60			
60	200	43.64	2.566
60	190	49.14	1.587
60	180	50.66	1.894
60	170	48.52	2.14
60	160	49.44	2.019
60	150	45.78	2.063
60	140	42.12	1.773
60	130	39.98	2.443
60	120	43.02	1.776
60	110	41.8	2.054
60	100	40.9	1.504
60	90	20.44	4.038
60	80	4.88	3.452
60	70	28.08	5.258
60	60	42.72	1.947
60	50	45.78	2.965
60	40	53.4	4.169
60	30	60.42	4.95
60	20	51.88	4.126
60	10	71.1	-0.797
60	0	133.36	16.298
80			
80	0	-46.906	-14.039
80	10	117.34	11.136
80	20	62.866	4.679
80	30	61.92	3.456
80	40	42.054	3.006
80	50	41.81	2.862
80	60	41.382	1.787
80	70	38.178	0.496
80	80	26.642	0.066
80	90	34.852	-0.915
80	100	41.962	-1.172
80	110	43.03	2.23
80	120	30.884	-1.89

TERRAIN CONDUCTIVITY DATA

SMALL GEOPHYSICS GRID

Hercules, Incorporated

Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
80	130	33.448	-0.056
80	140	31.646	0.597
80	150	45.318	1.852
80	160	40.008	-4.762
80	170	50.476	1.706
80	180	49.286	1.161
80	190	49.682	1.541
80	200	49.438	1.093
80	210	45.928	1.488
100			
100	200	48.676	0.893
100	190	48.066	0.9
100	180	49.988	1.668
100	170	54.26	1.611
100	160	46.418	1.624
100	150	42.694	1.71
100	140	43.366	1.831
100	130	44.128	2.465
100	120	38.33	-1.887
100	110	35.096	-1.216
100	100	47.12	0.999
100	90	41.442	1.758
100	80	41.962	1.192
100	70	38.818	1.684
100	60	38.36	1.719
100	50	47.516	2.151
100	40	56.152	2.778
100	30	68.604	4.312
100	20	68.176	3.599
100	10	-2.35	-5.751
100	0	101.838	9.843
120			
120	0	76.6	9.455
120	10	95.22	9.326
120	20	-1.52	-6.197
120	30	59.82	0.905
120	40	62.86	3.583
120	50	48.52	2.557
120	60	39.36	2.227
120	70	39.98	1.846
120	80	39.06	1.721
120	90	41.8	1.774
120	100	41.5	2.289
120	110	39.98	-1.624
120	120	30.52	-3.869
120	130	37.84	-1.174
120	140	39.68	-2.144
120	150	47.6	-7.3
120	160	52.5	-5.694
120	170	56.16	3.673
120	180	54.02	1.802

TERRAIN CONDUCTIVITY DATA
SMALL GEOPHYSICS GRID
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	QUADRATURE	INPHASE
120	190	50.04	1.646
120	200	48.82	1.773
140			
140	200	43.67	0.973
140	190	49.286	1.57
140	180	62.012	1.569
140	170	76.446	5.747
140	160	59.266	-9.664
140	150	61.188	2.601
140	140	53.376	-2.283
140	130	49.134	-0.885
140	120	40.466	2.623
140	110	41.9	0.214
140	100	40.436	1.771
140	90	39.154	1.361
140	80	39.062	1.238
140	70	40.436	1.311
140	60	40.374	1.6
140	50	50.292	2.3
140	40	58.838	1.457
140	30	34.302	-1.012
140	20	37.11	-1.532
140	10	70.404	5.835
140	0	57.22	3.037
160			
160	0	50.598	1.186
160	10	65.46	2.12
160	20	29.602	-0.738
160	30	50.11	2.752
160	40	61.554	11.353
160	50	58.166	12.094
160	60	40.284	2.851
160	70	39.856	1.284
160	80	39.094	1.258
160	90	40.496	1.315
160	100	39.856	2.265
160	110	48.646	1.207
160	120	62.256	1.438
160	130	67.382	1.929
160	140	44.678	3.257
160	150	96.984	2.546
160	160	82.032	3.921
160	170	62.256	6.469
160	180	49.5	2.098
160	190	40.558	0.714
160	200	40.07	1.157

TOTAL MAGNETIC INTENSITY
SMALL GEOPHYSICS GRID
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	MAGNETIC INTENSITY (n/T)
0	200	49592.31
0	190	49601.517
0	180	49642.998
0	170	49580.357
0	160	49769.609
0	150	49731.103
0	140	49696.82
0	130	49659.387
0	120	49657.301
0	110	49702.67
0	100	49457.517
0	90	49507.296
0	80	55763.074
0	70	49702.641
0	60	49523.73
0	50	49702.445
0	40	49547.54
0	30	49641.546
0	20	50117.304
0	10	49770.383
0	0	49697.137
20	0	49677.772
20	10	49902.764
20	20	50152.686
20	30	49607.447
20	40	49622.643
20	50	49611.876
20	60	49640.12
20	70	49554.577
20	80	49630.642
20	90	49605.668
20	100	49693.702
20	110	49776.128
20	120	49633.107
20	130	49796.452
20	140	49731.081
20	150	49676.382
20	160	49528.914
20	170	49793.799
20	180	49772.78
20	190	49658.781
20	200	49772.352
40	200	49677.422
40	190	49724.284
40	180	49684.692
40	170	49668.09
40	160	49668.486
40	150	49614.07
40	140	49555.679

TOTAL MAGNETIC INTENSITY
SMALL GEOPHYSICS GRID
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	MAGNETIC INTENSITY (n/T)
40	130	49775.594
40	120	49771.936
40	110	49641.801
40	100	49753.287
40	90	49767.209
40	80	49639.088
40	70	49763.303
40	60	50042.023
40	50	49696.284
40	40	49571.299
40	30	49545.704
40	20	49746.332
40	10	49688.62
40	0	49618.848
60	0	49674.881
60	10	49588.385
60	20	49483.739
60	30	49539.599
60	40	49641.456
60	50	49741.02
60	60	49895.796
60	70	49943.686
60	80	49890.919
60	90	49543.195
60	100	49546.854
60	110	49650.343
60	120	49660.765
60	130	49521.778
60	140	49736.494
60	150	49529.787
60	160	49675.63
60	170	49745.827
60	180	49627.335
60	190	49742.979
60	200	49779.805
80	200	49698.362
80	190	49664.554
80	180	49525.851
80	170	49391.524
80	160	50729.237
80	150	49697.24
80	140	49678.163
80	130	49355.968
80	120	49790.759
80	110	49736.811
80	100	48244.957
80	90	52815.318
80	80	50107.896
80	70	49832.916

TOTAL MAGNETIC INTENSITY
SMALL GEOPHYSICS GRID
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	MAGNETIC INTENSITY (n/T)
80	60	49719.025
80	50	49674.054
80	40	49566.807
80	30	49498.939
80	20	49550.1
80	10	49606.808
80	0	49401.417
100	0	49275.626
100	10	49332.982
100	20	49577.407
100	30	49510.796
100	40	49546.784
100	50	49520.562
100	60	49574.499
100	70	49749.562
100	80	49756.011
100	90	49680.659
100	100	50000.058
100	110	50319.811
100	120	49271.068
100	130	49390.988
100	140	49414.354
100	150	49593.834
100	160	49538.726
100	170	49604.88
100	180	49515.735
100	190	49602.582
100	200	49524.166
120	200	49610.637
120	190	49545.263
120	180	49462.39
120	170	49254.209
120	160	48870.45
120	150	49980.906
120	140	49214.662
120	130	49790.023
120	120	49828.54
120	110	50130.843
120	100	49778.028
120	90	49727.334
120	80	49651.426
120	70	49683.501
120	60	49589.022
120	50	49640.12
120	40	49673.313
120	30	49886.342
120	20	47511.481
120	10	47998.019
120	0	49820.681

TOTAL MAGNETIC INTENSITY
SMALL GEOPHYSICS GRID
Hercules, Incorporated
Hattiesburg, Mississippi

EAST	NORTH	MAGNETIC INTENSITY (n/T)
140	0	49929.026
140	10	48714.314
140	20	49494.981
140	30	49754.636
140	40	49442.288
140	50	49338.17
140	60	49305.513
140	70	49612.988
140	80	49799.645
140	90	49592.382
140	100	49631.564
140	110	50019.227
140	120	48457.152
140	130	49664.022
140	140	50938.116
140	150	50556.911
140	160	50189.527
140	170	48673.801
140	180	49368.009
140	190	49407.94
140	200	49517.05
160	200	49463.707
160	190	49216.454
160	180	49275.668
160	170	48736.77
160	160	49909.626
160	150	50944.459
160	140	49779.297
160	130	49765.926
160	120	49546.368
160	110	49506.726
160	100	49367.426
160	90	49708.008
160	80	49431.018
160	70	49355.253
160	60	48930.525
160	50	48656.012
160	40	48559.914
160	30	50186.77
160	20	49593.16
160	10	49563.472
160	0	50261.297

APPENDIX B

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APPENDIX B

BORING LOGS/WELL CONSTRUCTION DIAGRAMS

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-1
Project No.: HER22173
Date(s): 11-Aug-03
Logged By: CVC
Well/Boring Location:
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater:
Date:
Reference:
Elevation - Top of Casing:
Inner Casing:
Outer Casing:
Water Table:
Date:
Reference:
Remarks: Groundwater was not encountered during drilling.

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	dark brown, silty-sand (ML)			
5	2		as above; slight odor			
10	3		as above; slow probing from 9 -10			
	4		no recovery except small amount of wood			
15			Probe refusal at 15.0 feet below ground surface			
20						

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-2
Project No.: HER22173
Date(s): 11-Aug-03
Logged By: CVC
Well/Boring Location: East of the northeast fence corner.
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater: 10.2
Date: 31-Oct-03
Reference: TOC
Elevation - Top of Casing: 172.99
Inner Casing: 1 inch
Outer Casing: NA
Water Table: 162.79
Date:
Reference: TOC
Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ well sock, filter sand, & granular bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	dark brown and black, friable, silty-sand (ML)			3.5
5	2		as above; some wood fragments			
10	3		as above; wet at 10.5 feet			
15	4		as above; saturated			
20			as above;			
			Probe refusal at 21feet below ground surface			

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-3
Project No.: HER22173
Date(s): 11-Aug-03
Logged By: CVC
Well/Boring Location: East of the northeast fence corner.
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater: 11.83
Date: 31-Oct-03
Reference: TOC
Elevation - Top of Casing: 172.73
Inner Casing: 1 inch
Outer Casing: NA
Water Table: 160.9
Date:
Reference: TOC

Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ well sock, filter sand, & granular bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	dark brown and black, friable, silty-sand (ML)			
5	2		as above;			
10	3		as above; wood fragments and resinous material			
15	4		Probe refusal at 12.5 feet below ground surface			
20						

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-4
Project No.: HER22173
Date(s): 11-Aug-03
Logged By: CVC
Well/Boring Location: East of the northeast fence corner.
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater: 17.3
Date: 31-Oct-03
Reference: TOC
Elevation - Top of Casing: 185.35
Inner Casing: 1 inch
Outer Casing: NA
Water Table: 168.05
Date:
Reference: TOC
Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ well sock, filter sand, & bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Organic Vapor Headspace Analysis (ppm)
	1	n/a	dark brown and black, silty-sand (ML)	
5	2		as above	
			brown, silty clay (CL); strong odor	565
10	3		No lithology - sample tube crushed	851
	4		No lithology - sample tube crushed	1817
15	5		tan, gray & black, fine sand (SM), some crossbedding; strong odor	242
	6		as above; some sub-rounded - rounded, chert gravel; strong odor	243
20	7		as above; abundant pea gravel and coarse sand; strong odor	464
			tan, soft, plastic, clay (CH)	
			Probe refusal at 23.2 feet below ground surface	

Graphical Logs: Strata, Well Construction

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-5
Project No.: HER22173
Date(s): 11-Aug-03
Logged By: CVC
Well/Boring Location: East of the northeast fence corner.
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater: 7.29
Date: 31-Oct-03
Reference: TOC
Elevation - Top of Casing: 170.11
Inner Casing: 1 inch
Outer Casing: NA
Water Table: 162.82
Date:
Reference: TOC

Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ well sock, filter sand, & bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	dark brown and black, friable, v-silty-sand (ML)			
5	2		as above; saturated below 5 ft.			0
10	3		as above			0
	4		as above; abundant wood chips			
15	5		as above;			
			gray, soft-firm, plastic, clay (CH)			
20			Boring terminated at 20 feet below ground surface			

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-6
Project No.: HER22173
Date(s): 11-Aug-03
Logged By: CVC
Well/Boring Location: East of the northeast fence corner.
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater: 14.29
Date: 31-Oct-03
Reference: TOC
Elevation - Top of Casing: 166.54
Inner Casing: 1 inch
Outer Casing: NA
Water Table: 152.25
Date:
Reference: TOC
Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ well sock, filter sand, & bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	dark brown and black, fine, sand (ML); some wood chips			0
5	2		as above			0
10	3		as above; damp			
	4		tan and gray, fine sand (SM)			
15	5		as above;			
			gray, soft-firm, plastic, clay (CH)			
20			Boring terminated at 19 feet below ground surface			

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-7
Project No.: HER22173
Date(s): 11-Aug-03
Logged By: CVC
Well/Boring Location: East of the northeast fence corner.
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater: 14.78
Date: 31-Oct-03
Reference: TOC
Elevation - Top of Casing: 183.8
Inner Casing: 1 inch
Outer Casing: NA
Water Table: 169.02
Date:
Reference: TOC

Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ well sock, filter sand, & bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	tan and orange brown, silty, clay (CL)			
5	2		as above			67
			orange-brown and white, fine, silty sand (SM)			140
10	3					
	4		as above; saturated below 13 ft			52
15						
	5		as above; mild odor			0
20						
	6		tan, soft, plastic, clay (CH)			0
			Boring terminate at 24 ft below ground surface			

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-8
Project No.: HER22173
Date(s): 11-Aug-03
Logged By: CVC
Well/Boring Location: East of the northeast fence corner.
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater: 12.89
Date: 31-Oct-03
Reference: TOC
Elevation - Top of Casing: 171.46
Inner Casing: 1 inch
Outer Casing: NA
Water Table: 158.57
Date:
Reference: TOC
Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ filter sand, & bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	black and gray, fine, sand (ML);			17.5
5	2		as above; some wood fragments			52
10	3		as above;			29
	4		as above; abundant wood fragments, saturated below 14 ft			5
15	5		as above;			
20			gray, fine, sand (SM)			0
			Boring terminated at 24ft below ground surf.			

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-9
Project No.: HER22173
Date(s): 12-Aug-03
Logged By: CVC
Well/Boring Location: East of the northeast fence corner.
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater: 9.88
Date: 31-Oct-03
Reference: TOC
Elevation - Top of Casing: 161.84
Inner Casing: 1 inch
Outer Casing: NA
Water Table: 151.96
Date:
Reference: TOC

Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ filter sand, & bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	See Boring Log for TP-11 for lithology			
5	2					
10	3					
	4					
15			Boring terminated at 16 feet below ground surface			
20						

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-10
Project No.: HER22173
Date(s): 12-Aug-03
Logged By: CVC
Well/Boring Location: East of the northeast fence corner.
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater: 7.99
Date: 31-Oct-03
Reference: TOC
Elevation - Top of Casing:
Inner Casing: 1 inch
Outer Casing: NA
Water Table:
Date:
Reference: TOC
Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ filter sand, & bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	See Boring Log for TP-5 for lithology			
5	2					
10	3					
	4					
15			Boring terminated at 16 feet below ground surface			
20						

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

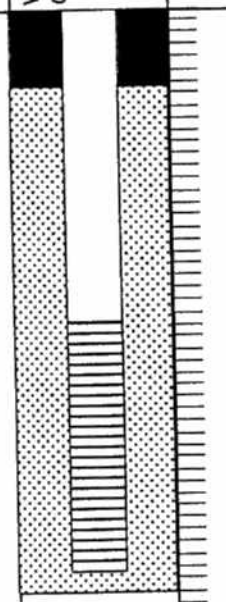
BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-11
Project No.: HER22173
Date(s): 12-Aug-03
Logged By: CVC
Well/Boring Location: East of the northeast fence corner.
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater: 8.94
Date: 31-Oct-03
Reference: TOC
Elevation - Top of Casing:
Inner Casing: 1 inch
Outer Casing: NA
Water Table:
Date:
Reference: TOC

Remarks:
Temporary well installed with 5 ft of 0.01 slot, PVC screen w/ filter sand, & bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	See Boring Log for TP-4 for lithology			
5	2					
10	3					
			Boring terminated at 12 feet below ground surface			
15						
20						



Note: Not all portions of this form are applicable to all projects

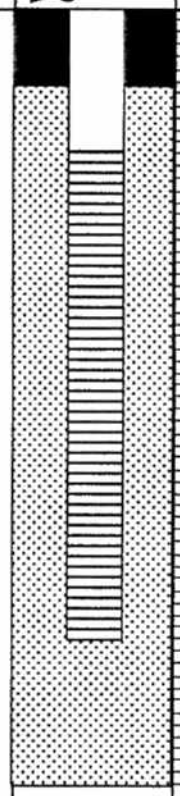
Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-12
Project No.: HER22173
Date(s): 12-Aug-03
Logged By: CVC
Well/Boring Location: East of the northeast fence corner.
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater: 5.27
Date: 31-Oct-03
Reference: TOC
Elevation - Top of Casing:
Inner Casing: 1 inch
Outer Casing: NA
Water Table:
Date:
Reference: TOC
Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ filter sand, & bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	See Boring Log for TP-1 for lithology			
5	2					
10	3					
	4					
15			Boring terminated at 16 feet below ground surface			
20						



Note: Not all portions of this form are applicable to all projects

BORING LOG

Eco-Systems, Inc.
Consultants, Engineers and Scientists

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-13
Project No.: HER22173
Date(s): 12-Aug-03
Logged By: CVC
Well/Boring Location: East of the northeast fence corner
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Date: 31-Oct-03
Reference: TOC
Depth to Groundwater: 8.51
Inner Casing: 1 inch
Outer Casing: NA
Elevation - Top of Casing: 175.67
Date:
Reference: TOC
Water Table: 167.16

Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ filter sand, & bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	dark brown and black, friable, sandy, silt (ML)			
5	2		as above; saturated below 5 ft.			
			as above			
10	3		gray, fine, sand (SM); saturated			
	4		as above;			
15			gray, plastic, clay (CH)			
			Boring terminated at 16 feet below ground surface			
20						

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-14
Project No.: HER22173
Date(s): 12-Aug-03
Logged By: CVC
Well/Boring Location: East of the northeast fence corner.
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater: 4.81
Date: 31-Oct-03
Reference: TOC
Elevation - Top of Casing: 174.51
Inner Casing: 1 inch
Outer Casing: NA
Water Table: 169.7
Date:
Reference: TOC
Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ filter sand, & bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	dark brown and black, friable, sandy, silt (ML)			
5	2		as above			
			gray, fine, sand (SM); some clayey zones			
10	3		as above; saturated			
15	4		as above;			
20			Boring terminated at 16 feet below ground surface			

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Project No.: HER22173
Date(s): 12-Aug-03
Well/Boring No.: GP-15
Logged By: CVC
Well/Boring Location: East of the northeast fence corner
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Date: 31-Oct-03
Reference: TOC
Depth to Groundwater: 19.92
Inner Casing: 1 inch
Outer Casing: NA
Elevation - Top of Casing: 179.73
Date:
Reference: TOC
Water Table: 159.81

Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ filter sand, & bentonite seal

Depth	Sample		Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Constr.	Organic Vapor Headspace Analysis (ppm)
	1	n/a	dark brown and black, friable, sandy, silt (ML); some cinders			
5	2		as above			
10	3		as above; thin layer of resin at 9.5 ft			
15	4		as above; 2 inches of resin at 15.5 ft			
20	5		as above; wood fragments, concrete fragments, resin			
25	6		as above; charred wood, brick fragments, resin			
30	7		gray, med-coarse, micaceous, sand (SM)			
35			Boring terminated at 29 feet below ground surface			
40						

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Well/Boring No.: GP-16
Project No.: HER22173
Date(s): 13-Aug-03
Logged By: CVC
Well/Boring Location: East of the northeast fence corner
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater: 10.88
Date: 31-Oct-03
Reference: TOC
Elevation - Top of Casing: 164.9
Inner Casing: 1 inch
Outer Casing: NA
Water Table: 154.02
Date:
Reference: TOC
Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ well sock, filter sand, & bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	dark brown and black, fine, sand (ML); some wood chips; brick fragments, concrete fragments, resin			0
			yellow-brown and white resin			
5	2					0
10	3		no recovery			
			sandy, gravel (GM); (fill)			
	4		gray, soft, plastic, sandy, clay (CH)			
15						
	5		as above; firm to hard			
20			Boring terminated at 20 feet below ground surface			

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project: Hercules - Hattiesburg
Project No.: HER22173
Date(s): 13-Aug-03
Well/Boring No.: GP-17
Logged By: CVC
Well/Boring Location: East of the northeast fence corner.
Drilling Method: Geoprobe
Drilling Contractor: Singley Construction Company
Depth to Groundwater: 6.14
Date: 31-Oct-03
Reference: TOC
Elevation - Top of Casing: 157.79
Inner Casing: 1 inch
Outer Casing: NA
Water Table: 151.65
Date:
Reference: TOC

Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ well sock, filter sand, & bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	brown, fine, silty, sand (ML);			
			tan and gray fine sand (SM)			
5	2		as above			
10	3		as above			
			gray, stiff, sandy, clay (CH)			
	4		Boring terminated at 12 feet below ground surface			
15	5					
20						

Note: Not all portions of this form are applicable to all projects

Eco-Systems, Inc.
Consultants, Engineers and Scientists

BORING LOG

Sheet: 1 of 1

Project:	Hercules - Hattiesburg	Well/Boring No.:	GP-18
Project No.:	HER22173	Date(s): 11-Aug-03	Logged By: CVC
Well/Boring Location:	East of the northeast fence corner.		
Drilling Method:	Geoprobe	Drilling Contractor:	Singley Construction Company
Depth to Groundwater:	15.73	Date: 31-Oct-03	Reference: TOC
Elevation - Top of Casing:	167.77	Inner Casing: 1 inch	Outer Casing: NA
Water Table:	152.04	Date:	Reference: TOC

Remarks:
Temporary well installed with 10 ft of 0.01 slot, PVC screen w/ well sock, filter sand, & bentonite seal

Depth, Sample Pt.	Sample Location	Blows	Lithologic Description	Graphical Logs: Strata	Graphical Logs: Well Construction	Organic Vapor Headspace Analysis (ppm)
	1	n/a	dark brown and black, fine, sand (ML);			
5	2		as above			
10	3		lt gray, fine, sand (SM)			
	4		as above			
15	5		as above;			
			gray, hard, silty, clay (CH)			
20			Boring terminated at 20 feet below ground surface			

Note: Not all portions of this form are applicable to all projects

APPENDIX C

ESI

APPENDIX C

LABORATORY ANALYTICAL REPORTS

Bonner Analytical Testing Company

2703 Oak Grove Road, Hattiesburg, MS 39402
Phone: (601) 264-2854 Fax: (601) 268-7084

CASE NARRATIVE: (Hercules)

Volatiles and Semivolatiles

Samples were received at BATCO on August 11, 12, 13, 14, 28 and September 3, 2003. The following lists all samples received and the analysis requested.

Date Received	Hercules ID	Bonner ID	MATRIX	VOLATILES	SEMIVOLS	DIOXATHION
8/11/03	HER GP04-7-8	BT88678	S	X		
8/11/03	HER GP02-GW	BT88679	W	X		X
8/11/03	HER GP04-GW	BT88680	W	X		X
8/12/03	HER-GP08-GW	BT88700	W	X		X
8/12/03	HER GP08-DUP-GW	BT88701	W	X		X
8/12/03	HER GP08-MS-GW	BT88702	W	X		X
8/12/03	HER GP08-MSD-GW	BT88703	W	X		X
8/12/03	HER GP06-GW	BT88704	W	X		X
8/12/03	HER RS-01	BT88705	W	X		X
8/12/03	HER GP05-GW	BT88707	W	X		X
8/12/03	HER GP07-GW	BT88708	W	X		X
8/13/03	HER GP14-GW	BT88739	W	X		X
8/13/03	HER GP09-GW	BT88740	W	X		X
8/13/03	HER GP13-GW	BT88741	W	X		X
8/13/03	HER GP15-GW	BT88742	W	X		X
8/13/03	HER BD01	BT88743	W	X		
8/13/03	HER GP17-GW	BT88744	W	X		X
8/13/03	HER GP09-GW	BT88745	W	X	X	
8/13/03	HER GP10-GW	BT88746	W	X	X	X
8/13/03	HER BD02	BT88747	W	X	X	X
8/13/03	HER GP11-GW	BT88748	W	X		X
8/14/03	HER GP11-GW	BT88794	W		X	
8/14/03	HERGP18-GW	BT88795	W	X		X
8/14/03	HER GP12-GW	BT88796	W	X	X	X

Date Received	Hercules ID	Bonner ID	MATRIX	VOLATILES	SEMIVOLS	DIOXATHION
8/28/03	HER MW01-082803	BT88950	W	X		X
8/28/03	HER MW10-082803	BT88951	W	X		X
8/28/03	HER MW10 MS	BT88952	W	X		X
8/28/03	HER MW10 MSD	BT88953	W	X		X
8/28/03	HER MW04-082803	BT88954	W	X		X
8/28/03	HER MW11-082803	BT88955	W	X		X
8/28/03	HER BD03	BT88956	W	X		X
9/3/03	HER CM00-SW090303	BT89024	W	X		X
9/3/03	HER CM01-SW090903	BT89025	W	X		X
9/3/03	HER CM00 MS/MSD	BT89026	W	X		X
9/3/03	HER CM00-SD090303	BT89027	S	X		X
9/3/03	HER CM01-SD090303	BT89028	S	X		X
9/3/03	HER CM00 MS/MSD	BT89029	S	X		X

Semivolatiles

Samples were extracted on 8/18/03 @ 0800 hrs. This included the five samples, a method blank, a lab control, a matrix spike, and a matrix spike duplicate. Each sample was spiked with a surrogate mix containing six compounds, three acidic at 200 ppm and three base/neutrals at 100 ppm. The lab control, matrix spike, and matrix spike duplicate were spiked with a matrix spike solution containing eleven compounds, ranging in concentration from 100 ppm (B/N) to 150 ppm (acids). The samples were extracted and concentrated according to SW-846 EPA Method 3510C.

A DFTPP tuning standard and a 6 point calibration curve containing 65 target compounds, 6 surrogate compounds, and 6 internal standards were ran on the gas chromatograph (GC) equipped with a mass selective detector (MS). The DFTTP standard, as well as the linearity of the curve, met all QA/QC requirements set in EPA method 8270C.

The samples were analyzed on 8/21/03 and 8/22/03 under the same conditions as the calibration curve. No target compounds were found in any samples sent by Hercules for semivolatile analysis. Surrogate recoveries ranged from 19.04% to 78.04%.

Volatiles

Samples were analyzed for volatile organic compounds (VOCs) utilizing a 5890 Series II Hewlett Packard Gas Chromatograph (GC) and a Perkin-Elmer Ion Trap Detector. These samples were run within the fourteen-day holding time window according to EPA

SW846 Method 8260B All QA/QC criteria were within the limits set in EPA SW846 Method 8260B. The only exception is that the surrogate recoveries were out of range for BT88678 (HER_GP04-78) and BT88679 (HER_GP02-GW) due to matrix affect. The sample dilutions and the surrogate recoveries were within the acceptable range.

A BFB standard was run on the HP-5890 GC to verify that the Ion Trap Detector was tuned and functioning properly. A five point calibration curve was obtained from dilutions of a working standard, 8260 calibration mix, which proved to pass linearity in accordance to EPA Method 8260B. Initial and continuing calibration verifications were acquired, analyzed, and passed during the sequence of the sample run. All Quality Assurance and Control measures were met in accordance to Method 8260B.

Volatile compounds were detected in the following samples.

BT88700	HER-GP08-GW
BT88701	HER-GP08-GW DUP
BT88704	HER-GP06-GW
BT88707	HER-GP05-GW
BT88708	HER-GP07-GW
BT88739	HER-GP14-GW
BT88742	HER-GP15-GW
BT88743	HER-BDO1
BT88748	HER-GP11-GW
BT88796	HER-GP12-GW
BT88678	HER-GP04 -7-8
BT88679	HER-GP02-GW
BT88680	HER-GP04-GW
BT88950	HER-MW01-082803
BT88951	HER-MW10-082803

All remaining samples were non-detect for all target compounds.

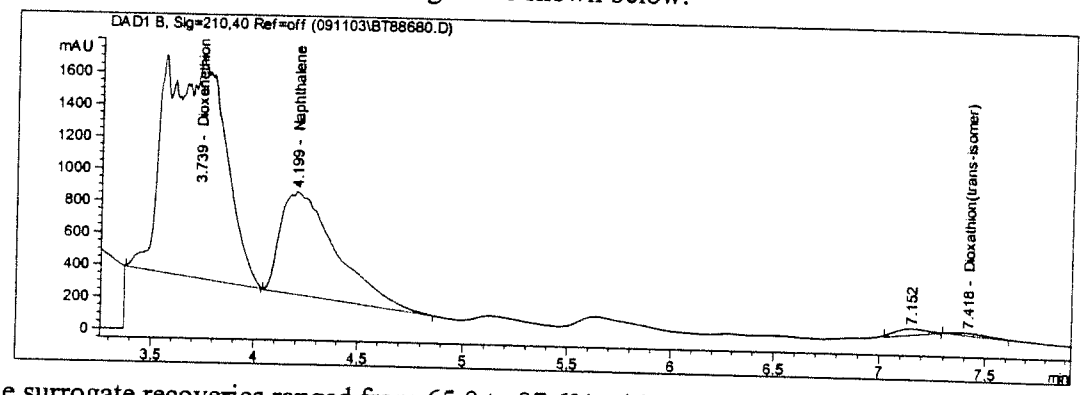
Dioxathion Analysis

A Dioxathion Calibration working standard was prepared from the individual Dioxenethion, Dioxathion (cis), and Dioxathion (trans) isomers obtained from Sigma-Aldrich Chemicals. Dilutions were made from the working standard to obtain an eight-point curve (0.4 to 20 ppm) utilizing a HP-1090 HPLC and HP-Chem software. A Diode-Array Detector, DAD, was used to obtain the data. Table 1 illustrates the retention times, linearity correlation coefficient, and the PQL's.

Table 1-Calibration Data

Dioxathion Isomer	Retention Times @ 210 nm (min)	Calibration of Linearity Correlation Coefficient	Practical Quant Limits for Water (ppb)	Practical Quant Limits for Soils (ppb)
Dioxenethion	3.648	0.9997	2.19	170
Dioxathion (cis)	6.914	0.9974	4.75	134
Dioxathion (trans)	7.462	0.9998	3.04	149

Water samples were extracted on 08/15/03 using EPA SW846 Method 3510C for Separatory Funnel Liquid-Liquid Extraction. Methylene chloride was the extracting solvent and exchanged to acetonitrile at 1-mL final volume. The samples were then analyzed on 09/12/03, using the HP-1090 HPLC under the same method as the calibration. None of the samples indicated the presence of any of the Dioxathion isomers, with the exception of sample HER-GP04-GW. The presence of multiple peaks at the retention time of Dioxenethion, caused by possible interferences, made quantitation of the analyte impossible. The chromatogram is shown below.



The surrogate recoveries ranged from 65.0 to 97.6% with exception to sample HER-BD02 at 42.4% due to loss of extraction solvent and sample HER-GP08-GW Duplicate, which may have been due to interferences in the peak. Samples received on 08/28/03 and 09/03/03 were extracted on 09/03/03, but have not been reported at this time due to instrument malfunction.

Authorized By: _____
Michael S. Bonner, PhD.

BONNER ANALYTICAL TESTING COMPANY

2703 Oak Grove Road, Hattiesburg, MS 39402

Phone: (601)-264-2854 Fax: (601)-268-7084 Email: batco@batco.com

WWW.BATCO.COM

Testing Your World for a Safer Tomorrow

YOUR COMPANY NAME: Hercules

YOUR COMPANY ADDRESS: 7th St, Hattiesburg, MS

NAME OF PERSON TO CONTACT: Charles Carey

CONTACT PERSON'S PHONE: 601 926 4440 FAX:

CONTACT PERSON'S EMAIL:

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER

LABORATORY USE

Turn Around Time: Standard

Project Number: 007591

	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	VOC 8260B	Dioxane 8270						NUMBER OF CONTAINERS	PRESERVATION	File ID
1	HER-MW01-082803	28AUG03	1215	Water	✓	✓								BT88950
2	HER-MW10-082803	"	1400	"	✓	✓								BT88951
3	HER-MW10-MS	"	1400	"	✓	✓								BT88952
4	HER-MW10-MSD	"	1400	"	✓	✓								BT88953
5	HER-MW04-082803	"	1545	"	✓	✓								BT88954
6	HER-MW11-082803	"	~~1545~~ 1500	"	✓	✓								BT88955
7	HER-BD03			"	✓	✓								BT88956
8														BT
9														BT
10														BT

SAMPLE COLLECTOR/RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Charles V. Carey	28AUG03	1820	

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

METHOD OF SHIPMENT (If Any)	RELINQUISHED BY:

DATE	TIME	RECEIVED FOR BATCO BY:	DATE/TIME
		Jannie Rinke	8-29-03 0830

REMARKS:

☐ REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS

(Signature)

IF SAMPLE IS DETERMINED TO BE HAZARDOUS, A MINIMUM ADDITIONAL CHARGE OF $30.00 PER SAMPLE WILL BE ASSESSED.

REVISION NO 1.2
22/01

YOUR COMPANY NAME: Eco-Systems, Inc.

YOUR COMPANY ADDRESS: 439 Katherine Dr. Suite 2A
Jackson, MS. 39232

NAME OF PERSON TO CONTACT: Charles Coney

CONTACT PERSON'S PHONE: 601-936-4440 FAX:

CONTACT PERSON'S EMAIL:

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER

BONNER ANALYTICAL TESTING COMPANY

2703 Oak Grove Road, Hattiesburg, MS 39402

Phone: (601)-264-2854 Fax: (601)-268-7084 Email: batco@batco.com

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LABORATORY USE

Turn Around Time

Project Number: 007656

	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PARAMETERS FOR ANALYSIS: 8260 B	PARAMETERS FOR ANALYSIS: DIOXATHION						NUMBER OF CONTAINERS	PRESERVATION	File ID
1	HER-CM00-SW090303	9-3-03	1430	WT	2	2								BT89024
2	HER-CM01-SW090303	9-3-03	1345	WT	2	2								BT89025
3	HER-CM00-MS/MSD	9-3-03	1430	WT	3	1								BT89026
4	HER-CM00-SD090303	9-3-03	1430	SL	3	1								BT89027
5	HER-CM01-SD090303	9-3-03	1345	SL	3	1								BT89028
6	HER-CM00-MS/MSD	9-3-03	1430	SL	2	1								BT89029
7														BT
8														BT
9														BT
10														BT

SAMPLE COLLECTOR/RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Brian Kittrell	9-3-03	1600	Pam Thompson

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

METHOD OF SHIPMENT (If Any)

RELINQUISHED BY:

DATE	TIME	RECEIVED FOR BATCO BY:	DATE/TIME
		[illegible]	9-3-03 1600

REMARKS:

☐ REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS

_____ (Signature)

IF SAMPLE IS DETERMINED TO BE HAZARDOUS, A MINIMUM ADDITIONAL CHARGE OF $30.00 PER SAMPLE WILL BE ASSESSED.

REVISION NO 1.2
03/22/01

BONNER ANALYTICAL TESTING COMPANY
2703 Oak Grove Road, Hattiesburg, MS 39402
Phone: (601)-264-2854 Fax: (601)-268-7084 Email: batco@batco.com
WWW.BATCO.COM

Testing Your World for a Safer Tomorrow

YOUR COMPANY NAME: Eco-Systems Inc.
YOUR COMPANY ADDRESS: 439 Katherine Dr. Suite 2A
Jackson, MS 39232

NAME OF PERSON TO CONTACT: Charles Corney
CONTACT PERSON'S PHONE: 601-209-0148 FAX:
CONTACT PERSON'S EMAIL:

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER

LABORATORY USE
Turn Around Time
Project Number: 007443

	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	8260B	DIOXATHION						NUMBER OF CONTAINERS	PRESERVATION	File ID
1	HER-GP14-GW	8-13-03	0932	Water	3	2								BT 88739
2	HER-GP09-GW	8-13-03	1047	Water	3	2								BT 88740
3	HER-GP13-GW	8-13-03	1000	Water	3	2								BT 88741
4	HER-GP15-GW	8-12-03	~~1000~~ 1800 cvc	Water	3	2								BT 88742
5	BD01	—	—	Water	3									BT 88743
6	HER-GP17-GW- Hold	8-13-03	1100	water	3	2								BT 88744
7														BT
8														BT
9														BT
10														BT

SAMPLE COLLECTOR/RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Brian Kittrell	8-13-03	1140	Sherry Roberts				

METHOD OF SHIPMENT (If Any)	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR BATCO BY:	DATE/TIME
	—			[signature]	8-13-03 @ 1200

REMARKS:

☐ REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS
(Signature)
IF SAMPLE IS DETERMINED TO BE HAZARDOUS, A MINIMUM ADDITIONAL CHARGE OF $30.00 PER SAMPLE WILL BE ASSESSED.

REVISION NO 1.2
/22/01

YOUR COMPANY NAME: Eco-Systems, Inc

YOUR COMPANY ADDRESS: 439 Katherine Drive. Suite 2A
Jackson, MS 39232

NAME OF PERSON TO CONTACT: Charles Coney

CONTACT PERSON'S PHONE: 601-209-0148 FAX:

CONTACT PERSON'S EMAIL:

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER

BONNER ANALYTICAL TESTING COMPANY

2703 Oak Grove Road, Hattiesburg, MS 39402

Phone: (601)-264-2854 Fax: (601)-268-7084 Email: batco@batco.com

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LABORATORY USE

Turn Around Time

Project Number: J07415

	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	8260B	DIOXATHION						NUMBER OF CONTAINERS	PRESERVATION	File ID
1	HER-GP05-GW	8-12-03	1423	Water	3	2								BT 88707
2	HER-GP07-GW	8-12-03	1620	Water	3	2								BT 88708
3														BT
4					Rush									BT
5														BT
6														BT
7														BT
8														BT
9														BT
10														BT

SAMPLE COLLECTOR/RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Susan Kittrell	8-12-03	1710	Pam Thompson

METHOD OF SHIPMENT (If Any)	RELINQUISHED BY:

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

DATE	TIME	RECEIVED FOR BATCO BY:	DATE/TIME
		Janice Ravart	8/12/03 1715

REMARKS:

☐ REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS

_____ (Signature)

IF SAMPLE IS DETERMINED TO BE HAZARDOUS, A MINIMUM ADDITIONAL CHARGE OF $30.00 PER SAMPLE WILL BE ASSESSED.

REVISION NO 1.2
03/22/01

YOUR COMPANY NAME: Eco-Systems Inc
YOUR COMPANY ADDRESS: 4390 Katherine Dr. Suite 2A
Jackson, MS. 39232

NAME OF PERSON TO CONTACT: Charles Coney
CONTACT PERSON'S PHONE: 601-209-0148 FAX:
CONTACT PERSON'S EMAIL:

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER

BONNER ANALYTICAL TESTING COMPANY
2703 Oak Grove Road, Hattiesburg, MS 39402
Phone: (601)-264-2854 Fax: (601)-268-7084 Email: batco@batco.com
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LABORATORY USE
Turn Around Time
Project Number: 007444

	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	8260B	DIOXATHIOW	8270					NUMBER OF CONTAINERS	PRESERVATION	File ID
1	HER-GP09-GW	8-13-03	1328	Water			2							BT 88745
2	HER-GP10-GW	8-13-03	1445	Water		2	2							BT 88746
3	HER-BD02			Water		2	2							BT 88747
4	HER-GP11-GW	8-13-03	1428	Water		2								BT 88748
5														BT
6														BT
7														BT
8														BT
9														BT
10														BT

SAMPLE COLLECTOR/RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Brian Kittell	8-13-03	1635	Pam Thompson

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

METHOD OF SHIPMENT (If Any)	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR BATCO BY:	DATE/TIME
				Janice Parrott	8/13/03 @1635

REMARKS: For HER-GP11-GW 1 of the 2 Liter Ambers has only 1/4 Volume.

☐ REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS
_____ (Signature)
IF SAMPLE IS DETERMINED TO BE HAZARDOUS, A MINIMUM ADDITIONAL CHARGE OF $30.00 PER SAMPLE WILL BE ASSESSED.

REVISION NO 1.2
22/01

Extractions

BONNER ANALYTICAL TESTING COMPANY

2703 Oak Grove Road, Hattiesburg, MS 39402

Phone: (601)-264-2854 Fax: (601)-268-7084 Email: batco@batco.com

WWW.BATCO.COM

Testing Your World for a Safer Tomorrow

YOUR COMPANY NAME: Eco-Systems Inc

YOUR COMPANY ADDRESS: 4390 Katherine Dr. Suite 2A
Jackson, MS. 39232

NAME OF PERSON TO CONTACT: Charles Coney

CONTACT PERSON'S PHONE: 601-209-0148 FAX:

CONTACT PERSON'S EMAIL:

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER

LABORATORY USE

Turn Around Time

Project Number: 007444

	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	8260B	DIOXATHION	8270					NUMBER OF CONTAINERS	PRESERVATION	File ID
1	HER-GP09-GW	8-13-03	1328	Water			2							BT 88745
2	HER-GP10-GW	8-13-03	1445	Water		2	2							BT 88746
3	HER-BD02			Water		2	2							BT 88747
4	HER-GP11-GW	8-13-03	1428	Water		2								BT 88748
5														BT
6														BT
7	MB, LC, MS, MSD													BT
8														BT
9														BT
10														BT

SAMPLE COLLECTOR/RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Brian Kittell	8-13-03	1635	Pam Thompson

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

METHOD OF SHIPMENT (If Any)

RELINQUISHED BY:

DATE	TIME	RECEIVED FOR BATCO BY:	DATE/TIME
		Janiece Rawalt	8/13/03 @1635

REMARKS: For HER-GP11-GW 1 of the 2 Liter Ambers was only 1/4 Volume.

☐ REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS

_____ (Signature)

IF SAMPLE IS DETERMINED TO BE HAZARDOUS, A MINIMUM ADDITIONAL CHARGE OF $30.00 PER SAMPLE WILL BE ASSESSED.

REVISION NO 1.2
12/01

Estimated

BONNER ANALYTICAL TESTING COMPANY

2703 Oak Grove Road, Hattiesburg, MS 39402

Phone: (601)-264-2854 Fax: (601)-268-7084 Email: batco@batco.com

WWW.BATCO.COM

Testing Your Water for a Safer Tomorrow

YOUR COMPANY NAME: Eco-Systems, Inc.

YOUR COMPANY ADDRESS: 439 Katherine Dr. Jackson, MS 39282

NAME OF PERSON TO CONTACT: Charles Coney

CONTACT PERSON'S PHONE: 601 936 4440 FAX: 601 936 4463

CONTACT PERSON'S EMAIL: charles.coney@eco-systemsinc.com

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER
Hercules		

LABORATORY USE

Turn Around Time: Standard

Project Number: 007473

	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	VOC	SVOC	Dioxathion					NUMBER OF CONTAINERS	PRESERVATION	File ID
1	HER-GP11-GW	14AUG03	1145	Water		✓								BT 88794 X
2	HER-GP18-GW	14AUG03	1315	"	✓		✓							BT 88795
3	HER-GP12-GW	14AUG03	1440	"	✓	✓	✓							BT 88796 X
4														BT
5														BT
6														BT
7														BT
8														BT
9														BT
10														BT

SAMPLE COLLECTOR/RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Charles V. Coney	14AUG03	1600	Pam Thompson

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

METHOD OF SHIPMENT (If Any)	RELINQUISHED BY:

DATE	TIME	RECEIVED FOR BATCO BY:	DATE/TIME
		Janice Rawalt	08/14/03 1600

REMARKS:

☐ REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS

_____ (Signature)

IF SAMPLE IS DETERMINED TO BE HAZARDOUS, A MINIMUM ADDITIONAL CHARGE OF $30.00 PER SAMPLE WILL BE ASSESSED.

REVISION NO 1.2
03/22/01

YOUR COMPANY NAME: Eco-Systems, Inc.
YOUR COMPANY ADDRESS: 439 Katherine Dr.
Jackson, MS 39232

NAME OF PERSON TO CONTACT: Charles Coney
CONTACT PERSON'S PHONE: 601 936 4440 FAX: 601 936 4463
CONTACT PERSON'S EMAIL: charles.coney@eco-systemsinc.com

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER
Hercules		

BONNER ANALYTICAL TESTING COMPANY

2703 Oak Grove Road, Hattiesburg, MS 39402

Phone: (601)-264-2854 Fax: (601)-268-7084 Email: batco@batco.com

WWW.BATCO.COM

Testing Your World for a Safer Tomorrow

	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	VOC	SVOC	Dioxathion					NUMBER OF CONTAINERS	PRESERVATION	LABORATORY USE (File ID)
1	HER-GP11-GW	14AUG03	1145	Water		✓								BT 88794
2	HER-GP18-GW	14AUG03	1315	"	✓		✓							BT 88795
3	HER-GP12-GW	14AUG03	1440	"	✓	✓	✓							BT 88796
4														BT
5														BT
6														BT
7														BT
8														BT
9														BT
10														BT

LABORATORY USE

Turn Around Time: Standard

Project Number: 007473

SAMPLE COLLECTOR/RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Charles V. Coney	14AUG03	1600	Pam Thompson

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

METHOD OF SHIPMENT (If Any):

RELINQUISHED BY:

DATE	TIME	RECEIVED FOR BATCO BY:	DATE/TIME
		Janice Rawalt	08/14/03 1600

REMARKS:

☐ REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS

_____ (Signature)

IF SAMPLE IS DETERMINED TO BE HAZARDOUS, A MINIMUM ADDITIONAL CHARGE OF $30.00 PER SAMPLE WILL BE ASSESSED.

REVISION NO 1.2
03/22/01

BONNER ANALYTICAL TESTING COMPANY

2703 Oak Grove Road, Hattiesburg, MS 39402
Phone: (601)-264-2854 Fax: (601)-268-7084 Email: batco@batco.com
WWW.BATCO.COM

Testing Your World for a Safer Tomorrow

YOUR COMPANY NAME: Hercules
YOUR COMPANY ADDRESS: 7th St, Hattiesburg, MS
NAME OF PERSON TO CONTACT: Charles Carey
CONTACT PERSON'S PHONE: 601 986 4440 FAX:
CONTACT PERSON'S EMAIL:

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER

LABORATORY USE
Turn Around Time: Standard
Project Number: 007591

	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	VOC 8260B	Dioxin						NUMBER OF CONTAINERS	PRESERVATION	File ID
1	HER-MW01-082803	28AUG03	1215	Water	✓	✓								BT88950
2	HER-MW10-082803	"	1400	"	✓	✓								BT88951
3	HER-MW10-MS	"	1400	"	✓	✓								BT88952
4	HER-MW10-MSD	"	1400	"	✓	✓								BT88953
5	HER-MW04-082803	"	1545	"	✓	✓								BT88954
6	HER-MW11-082803	"	~~1545~~ 1600	"	✓	✓								BT88955
7	HER-BD03			"	✓	✓								BT88956
8														BT
9														BT
10														BT

SAMPLE COLLECTOR/RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Charles V. Carey	28AUG03	1820	[signature]

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

METHOD OF SHIPMENT (If Any)	RELINQUISHED BY:

DATE	TIME	RECEIVED FOR BATCO BY:	DATE/TIME
		Jamie R[illegible]	8-29-03 0830

REMARKS:

☐ REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS
_____ (Signature)
IF SAMPLE IS DETERMINED TO BE HAZARDOUS, A MINIMUM ADDITIONAL CHARGE OF $30.00 PER SAMPLE WILL BE ASSESSED.

REVISION NO 1.2
03/22/01

YOUR COMPANY NAME: Eco-Systems, Inc

YOUR COMPANY ADDRESS: 439 Katherine Drive, Suite 2A
Jackson, Ms 39232

NAME OF PERSON TO CONTACT: Charles Coney

CONTACT PERSON'S PHONE: 601-209-0148 FAX:

CONTACT PERSON'S EMAIL: charles.coney@eco-systemsinc.com

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER

BONNER ANALYTICAL TESTING COMPANY

2703 Oak Grove Road, Hattiesburg, MS 39402

Phone: (601)-264-2854 Fax: (601)-268-7084 Email: batco@batco.com

WWW.BATCO.COM

Testing Your World for a Safer Tomorrow

	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	8260 B	Dioxathion						NUMBER OF CONTAINERS	PRESERVATION	File ID
1	HER-GP04-7-8	8-11-03	1115	Soil	1									BT 88678
2	HER-GP02-GW	8-11-03	1350	Water	3	2								BT 88679
3	HER-GP04-GW	8-11-03	1540	Water	3	2								BT 88680
4														BT
5					Rush									BT
6														BT
7														BT
8														BT
9														BT
10														BT

LABORATORY USE

Turn Around Time

Project Number: 107403

SAMPLE COLLECTOR/RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Brian Kittrell	8-11-03	1655	Pam Thompson

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

METHOD OF SHIPMENT (If Any)

RELINQUISHED BY:

DATE	TIME	RECEIVED FOR BATCO BY:	DATE/TIME
		Charlie [illegible]	8-11-03 1700

REMARKS:

☐ REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS

(Signature)

IF SAMPLE IS DETERMINED TO BE HAZARDOUS, A MINIMUM ADDITIONAL CHARGE OF $30.00 PER SAMPLE WILL BE ASSESSED.

REVISION NO 1.2
[illegible]/22/01

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Hercules
Location: **HER_MW01-082803**
File #: BT88950

	Date	Time	Analyst
Collected:	08/28/03	12:15	Client
Received:	08/29/03	8:30	LR
Analyzed:	09/08/03	19:46	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007591

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE			BLANK			MATRIX SPIKE (BT88952)			MATRIX SPIKE DUP (BT88953)		
			Detected Amount ug/L (ppb)	Amount ug	% Recovery	Detected Amount ug/L (ppb)	Amount ug	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ng	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ng	Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			49.9	250	100	49.8	250	100
Benzene	71-43-2	1.00	ND			ND			48.5	250	97.0	50.8	250	102
Trichloroethene	79-01-6	1.00	ND			ND			51.6	250	103	51.8	250	104
Toluene	108-88-3	1.00	ND			ND			46.2	250	92.3	47.8	250	96
Chlorobenzene	108-90-7	1.00	ND			ND			50.8	250	102	53.9	250	108
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	1.34			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	2.70			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	1.39			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	2.20			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	5.05			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	1.34			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	ND			ND			ND			ND		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Hercules
Location: **HER_MW01-082803**
File #: BT88950

	Date	Time	Analyst
Collected:	08/28/03	12:15	Client
Received:	08/29/03	8:30	LR
Analysis:	09/08/03	19:46	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007591

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88952) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88953) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	1.40 J			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	1.23			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		48.3	250.0	96.5	51.2	250.0	102	48.8	250	97.5	50.6	250	101
Dibromofluoromethane	1868-53-7		50.6	250.0	101	51.3	250.0	103	51.0	250	102	51.0	250	102
Toluene-d8	2037-26-5		49.7	250.0	99.5	49.5	250.0	99.0	48.5	250	96.9	49.6	250	99.2
4-Bromofluorobenzene	460-00-4		53.3	250.0	107	56.3	250.0	113	55.9	250	112	56.3	250	113

PQL is set as low point on the curve
J result is above MDL bul below PQL

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-MW-01-082803
File #: BT88950

	Date		Analyst
Collected:	08/28/03	12:15	Client
Extracted:	09/03/03	13:45	SCF
Analyzed:	09/17/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	ND			ND			4.67	5.00	93.4	4.69	5.00	93.8
Dioxathion (cis)	0.400	ND			ND			4.79	5.00	95.8	4.82	5.00	96.4
Dioxathion (trans)	0.400	ND			ND			4.35	5.00	87.0	4.19	5.00	83.8
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.36	5.00	87.2	2.99	5.00	59.8	4.13	5.00	82.6	4.89	5.00	97.8

Certified by: _____
Michael S. Bonner, Ph.D.
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Hercules
Location: **HER_MW04-082803**
File #: BT88954

	Date	Time	Analyst
Collected:	08/28/03	15:45	Client
Received:	08/29/03	8:30	LR
Analyzed:	09/09/03	14:29	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007591

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88952) Detected Amount ug/L (ppb)	MATRIX SPIKE (BT88952) Spike Amount ng	MATRIX SPIKE (BT88952) Spike % Recovery	MATRIX SPIKE DUP (BT88953) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP (BT88953) Spike Amount ng	MATRIX SPIKE DUP (BT88953) Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			49.9	250	100	49.8	250	100
Benzene	71-43-2	1.00	ND			ND			48.5	250	97	50.8	250	102
Trichloroethene	79-01-6	1.00	ND			ND			51.6	250	103	51.8	250	104
Toluene	108-88-3	1.00	ND			ND			46.2	250	92	47.8	250	96
Chlorobenzene	108-90-7	1.00	ND			ND			50.8	250	102	53.9	250	108
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	ND			ND			ND			ND		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Hercules
Location: **HER_MW04-082803**
File #: BT88954

	Date	Time	Analyst
Collected:	08/28/03	15:45	Client
Received:	08/29/03	8:30	LR
Analysis:	09/09/03	14:29	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007591

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88952) Detected Amount ug/L (ppb)	MATRIX SPIKE (BT88952) Spike Amount ng	MATRIX SPIKE (BT88952) Spike % Recovery	MATRIX SPIKE DUP (BT88953) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP (BT88953) Spike Amount ng	MATRIX SPIKE DUP (BT88953) Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		52.2	250.0	104	51.2	250.0	102	48.8	250	97.5	50.6	250	101
Dibromofluoromethane	1868-53-7		48.7	250.0	97.5	51.3	250.0	103	51.0	250	102	51.0	250	102
Toluene-d8	2037-26-5		50.2	250.0	100	49.5	250.0	99.0	48.5	250	96.9	49.6	250	99.2
4-Bromofluorobenzene	460-00-4		53.9	250.0	108	56.3	250.0	113	55.9	250	112	56.3	250	113

PQL is set as low point on the curve
J result is above MDL bul below PQL

Certified by: Michael S. Bonner,Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: **Hercules/Eco-Systems**
Sample ID: HER-MW04-082803
File #: BT88954

	Date		Analyst
Collected:	08/28/03	15:45	Client
Extracted:	09/03/03	13:45	SCF
Analyzed:	10/31/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	6.34			ND			4.67	5.00	93.4	4.69	5.00	93.8
Dioxathion (cis)	0.400	1.82			ND			4.79	5.00	95.8	4.82	5.00	96.4
Dioxathion (trans)	0.400	ND			ND			4.35	5.00	87.0	4.19	5.00	83.8
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.87	5.00	97.4	2.99	5.00	59.8	4.13	5.00	82.6	4.89	5.00	97.8

Certified by: _____
Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Hercules
Location: **HER_MW10-082803**
File #: BT88951

	Date	Time	Analyst
Collected:	08/28/03	14:00	Client
Received:	08/29/03	8:30	LR
Analyzed:	09/08/03	20:28	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007591

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88952) Detected Amount ug/L (ppb)	MATRIX SPIKE (BT88952) Spike Amount ng	MATRIX SPIKE (BT88952) Spike % Recovery	MATRIX SPIKE DUP (BT88953) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP (BT88953) Spike Amount ng	MATRIX SPIKE DUP (BT88953) Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			49.9	250	100	49.8	250	100
Benzene	71-43-2	1.00	ND			ND			48.5	250	97	50.8	250	102
Trichloroethene	79-01-6	1.00	ND			ND			51.6	250	103	51.8	250	104
Toluene	108-88-3	1.00	ND			ND			46.2	250	92	47.8	250	96
Chlorobenzene	108-90-7	1.00	ND			ND			50.8	250	102	53.9	250	108
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	1.55			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	ND			ND			ND			ND		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Hercules
Location: **HER_MW10-082803**
File #: BT88951

	Date	Time	Analyst
Collected:	08/28/03	14:00	Client
Received:	08/29/03	8:30	LR
Analysis:	09/08/03	20:28	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007591

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88952) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE % Recovery	MATRIX SPIKE DUP (BT88953) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		48.3	250.0	96.5	51.2	250.0	102	48.8	250	97.5	50.6	250	101
Dibromofluoromethane	1868-53-7		50.6	250.0	101	51.3	250.0	103	51.0	250	102	51.0	250	102
Toluene-d8	2037-26-5		49.7	250.0	99.5	49.5	250.0	99.0	48.5	250	96.9	49.6	250	99.2
4-Bromofluorobenzene	460-00-4		53.3	250.0	107	56.3	250.0	113	55.9	250	112	56.3	250	113

PQL is set as low point on the curve
J result is above MDL bul below PQL

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-MW10-082803
File #: BT88951

	Date	Time	Analyst
Collected:	08/28/03	14:00	Client
Extracted:	09/03/03	13:45	SCF
Analyzed:	09/17/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	ND			ND			4.67	5.00	93.4	4.69	5.00	93.8
Dioxathion (cis)	0.400	ND			ND			4.79	5.00	95.8	4.82	5.00	96.4
Dioxathion (trans)	0.400	ND			ND			4.35	5.00	87.0	4.19	5.00	83.8
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.09	5.00	81.8	2.99	5.00	59.8	4.13	5.00	82.6	4.89	5.00	97.8

Certified by: _____
Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-MW10-082803
File #: BT88951D

	Date		Analyst
Collected:	08/28/03		Client
Extracted:	09/03/03	13:45	SCF
Analyzed:	09/17/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike		Detected Amount ug/L (ppb)	Spike		Detected Amount ug/mL (ppm)	Spike		Detected Amount ug/mL (ppm)	Spike	
			Amount ug/L	% Recovery		Amount ug/L	% Recovery		Amount ug/mL	% Recovery		Amount ug/mL	% Recovery
Dioxenethion	0.400	ND			ND			4.67	5.00	93.4	4.69	5.00	93.8
Dioxathion (cis)	0.400	ND			ND			4.79	5.00	95.8	4.82	5.00	96.4
Dioxathion (trans)	0.400	ND			ND			4.35	5.00	87.0	4.19	5.00	83.8
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.41	5.00	88.2	2.99	5.00	59.8	4.13	5.00	82.6	4.89	5.00	97.8

Certified by: _____
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QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Hercules
Location: **HER_MW11-082803**
File #: BT88955

	Date	Time	Analyst
Collected:	08/28/03	17:15	Client
Received:	08/29/03	8:30	LR
Analyzed:	09/09/03	15:10	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007591

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88952) Detected Amount ug/L (ppb)	MATRIX SPIKE (BT88952) Spike Amount ng	MATRIX SPIKE (BT88952) Spike % Recovery	MATRIX SPIKE DUP (BT88953) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP (BT88953) Spike Amount ng	MATRIX SPIKE DUP (BT88953) Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			49.9	250	100	49.8	250	100
Benzene	71-43-2	1.00	ND			ND			48.5	250	97	50.8	250	102
Trichloroethene	79-01-6	1.00	ND			ND			51.6	250	103	51.8	250	104
Toluene	108-88-3	1.00	ND			ND			46.2	250	92	47.8	250	96
Chlorobenzene	108-90-7	1.00	ND			ND			50.8	250	102	53.9	250	108
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	ND			ND			ND			ND		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Hercules
Location: **HER_MW11-082803**
File #: BT88955

	Date	Time	Analyst
Collected:	08/28/03	17:15	Client
Received:	08/29/03	8:30	LR
Analysis:	09/09/03	15:10	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007591

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88952) Detected Amount ug/L (ppb)	MATRIX SPIKE (BT88952) Spike Amount ng	MATRIX SPIKE (BT88952) Spike % Recovery	MATRIX SPIKE DUP (BT88953) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP (BT88953) Spike Amount ng	MATRIX SPIKE DUP (BT88953) Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		51.1	250.0	102	51.2	250.0	102	48.8	250	97.5	50.6	250	101
Dibromofluoromethane	1868-53-7		50.4	250.0	101	51.3	250.0	103	51.0	250	102	51.0	250	102
Toluene-d8	2037-26-5		52.6	250.0	105	49.5	250.0	99.0	48.5	250	96.9	49.6	250	99.2
4-Bromofluorobenzene	460-00-4		54.9	250.0	110	56.3	250.0	113	55.9	250	112	56.3	250	113

PQL is set as low point on the curve
J result is above MDL but below PQL

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-MW11-082803
File #: BTB8956

Collected:	08/28/03		Client
Extracted:	09/03/03	13:45	SCF
Analyzed:	10/31/03		SCF
	Date		Analyst

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	6.24			ND			4.67	5.00	93.4	4.69	5.00	93.8
Dioxathion (cis)	0.400	ND			ND			4.79	5.00	95.8	4.82	5.00	96.4
Dioxathion (trans)	0.400	ND			ND			4.35	5.00	87.0	4.19	5.00	83.8
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.44	5.00	88.8	2.99	5.00	59.8	4.13	5.00	82.6	4.89	5.00	97.8

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QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco-Systems Inc.
Location: **HER_CM00-SW090303**
File #: BT89024

	Date	Time	Analyst
Collected:	09/03/03	14:30	Client
Received:	09/03/03	16:00	LR
Analyzed:	09/17/03	19:11	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007656

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT89026Z) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT89026Y) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			39.5	250	79	40.0	250	80
Benzene	71-43-2	1.00	ND			ND			55.1	250	110	50.5	250	101
Trichloroethene	79-01-6	1.00	ND			ND			40.2	250	80	38.5	250	77
Toluene	108-88-3	1.00	ND			ND			45.1	250	90	45.6	250	91
Chlorobenzene	108-90-7	1.00	ND			ND			28.2	250	56 *	41.2	250	82
Bromobenzene	108-86-1	1.00	4.18			ND			6.90			7.34		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	3.40			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	4.61			ND			1.86			1.94		
Dibromochloromethane	124-48-1	1.00	ND			ND			2.57			1.99		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	3.44			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	3.66			ND			2.39			3.46		
1,4-Dichlorobenzene	106-46-7	1.00	7.54			ND			3.89			4.17		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			6.81			4.63		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	4.14			ND			6.15			3.11		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			1.02		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	ND			ND			2.27 J			8.23		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco-Systems Inc.
Location: **HER_CM00-SW090303**
File #: BT89024

	Date	Time	Analyst
Collected:	09/03/03	14:30	Client
Received:	09/03/03	16:00	LR
Analysis:	09/17/03	19:11	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007656

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT89026Z) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT89026Y) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	3.16			ND			2.20			2.73		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			1.99			2.36		
1,3,5-Trimethylbenzene	108-67-8	1.00	1.04			ND			3.53			4.84		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	8.31			ND			ND			24.9		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		44.6	250.0	89.2	49.4	250.0	98.8	46.8	250	93.7	50.5	250	101
Dibromofluoromethane	1868-53-7		48.2	250.0	96.4	56.1	250.0	112	46.9	250	93.7	50.2	250	100
Toluene-d8	2037-26-5		51.6	250.0	103	52.3	250.0	105	52.1	250	104	54.3	250	109
4-Bromofluorobenzene	460-00-4		46.8	250.0	93.7	46.2	250.0	92.3	51.0	250	102	55.2	250	110

* Surogate recoveries out of range, Previous dilutions with in range.
PQL is set as low point on the curve
J result is above MDL but below PQL

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco-Systems Inc.
Location: **HER_CM01-SW090303**
File #: BT89025

	Date	Time	Analyst
Collected:	09/03/03	13:45	Client
Received:	09/03/03	16:00	LR
Analyzed:	09/18/03	11:22	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007656

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT89026Z) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT89026Y) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			39.5	250	79	40.0	250	80
Benzene	71-43-2	1.00	ND			ND			55.1	250	110	50.5	250	101
Trichloroethene	79-01-6	1.00	ND			ND			40.2	250	80	38.5	250	77
Toluene	108-88-3	1.00	4.66			ND			45.1	250	90	45.6	250	91
Chlorobenzene	108-90-7	1.00	6.58			ND			28.2	250	56 *	41.2	250	82
Bromobenzene	108-86-1	1.00	13.0			ND			6.90			7.34		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	2.53			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	4.17			ND			1.86			1.94		
Dibromochloromethane	124-48-1	1.00	ND			ND			2.57			1.99		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	3.76			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	3.42			ND			2.39			3.46		
1,4-Dichlorobenzene	106-46-7	1.00	6.35			ND			3.89			4.17		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			6.81			4.63		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	1.71			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	1.55			ND			6.15			3.11		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			1.02		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	14.7			ND			2.27 J			8.23		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco-Systems Inc.
Location: **HER_CM01-SW090303**
File #: BT89025

	Date	Time	Analyst
Collected:	09/03/03	13:45	Client
Received:	09/03/03	16:00	LR
Analysis:	09/18/03	11:22	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007656

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT89026Z) Detected Amount ug/L (ppb)	MS Spike Amount ng	MS Spike % Recovery	MATRIX SPIKE DUP (BT89026Y) Detected Amount ug/L (ppb)	MSD Spike Amount ng	MSD Spike % Recovery
Styrene	100-42-5	1.00	2.36			ND			2.20			2.73		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	6.64			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	1.80 J			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	1.30			ND			1.99			2.36		
1,3,5-Trimethylbenzene	108-67-8	1.00	1.57			ND			3.53			4.84		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	7.41			ND			ND			24.9		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		58.4	250.0	116.9	49.4	250.0	98.8	46.8	250	93.7	50.5	250	101
Dibromofluoromethane	1868-53-7		54.5	250.0	109.0	56.1	250.0	112	46.9	250	93.7	50.2	250	100
Toluene-d8	2037-26-5		53.0	250.0	106	52.3	250.0	105	52.1	250	104	54.3	250	109
4-Bromofluorobenzene	460-00-4		54.6	250.0	109.2	46.2	250.0	92.3	51.0	250	102	55.2	250	110

* Surogate recoveries out of range, Previous dilutions with in range.
PQL is set as low point on the curve
J result is above MDL but below PQL

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco-Systems Inc.
Location: HER_CM00-SD-090303
File #: BT89027

	Date	Time	Analyst
Collected:	09/03/03	14:30	Client
Received:	09/03/03	16:00	LR
Analyzed:	09/18/03	13:27	MGJ

Sample Type: Soil
Analysis Method: 8260B
Project Number: 007656

Compound Name	CAS Number	PQL ug/Kg (ppb)	SAMPLE Detected Amount ug/Kg (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/Kg (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT89026Z) Detected Amount ug/Kg (ppb)	MS Spike Amount ng	MS Spike % Recovery	MATRIX SPIKE DUP (BT89026Y) Detected Amount ug/Kg (ppb)	MSD Spike Amount ng	MSD Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			50.7	250	101	47.8	250	96
Benzene	71-43-2	5.00	ND			ND			55.1	250	110	42.5	250	85
Trichloroethene	79-01-6	5.00	ND			ND			53.9	250	108	50.8	250	102
Toluene	108-88-3	5.00	ND			ND			48.7	250	97	52.7	250	105
Chlorobenzene	108-90-7	5.00	ND			ND			45.2	250	90	45.4	250	91
Bromobenzene	108-86-1	5.00	4.79 J			ND			4.44 J			4.68 J		
Bromochloromethane	74-97-5	5.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	5.00	ND			ND			ND			ND		
Bromoform	75-25-2	5.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	5.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	5.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	5.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	5.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	5.00	ND			ND			ND			ND		
Chloromethane	74-87-3	5.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	5.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	5.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	5.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	5.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	5.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	5.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	5.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	5.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	5.00	4.54 J			ND			3.60 J			4.29 J		
Dichlorodifluoromethane	75-71-8	5.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	5.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	5.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	5.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	5.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	5.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	5.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	5.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	5.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	5.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	5.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	5.00	ND			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	ND			ND			ND			ND		
n-Propylbenzene	103-65-1	5.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco-Systems Inc.
Location: **HER_CM00-SD-090303**
File #: BT89027

	Date	Time	Analyst
Collected:	09/03/03	14:30	Client
Received:	09/03/03	16:00	LR
Analysis:	09/18/03	13:27	MGJ

Sample Type: Soil
Analysis Method: 8260B
Project Number: 007656

Compound Name	CAS Number	PQL ug/Kg (ppb)	SAMPLE Detected Amount ug/Kg (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/Kg (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT89026Z) Detected Amount ug/Kg (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT89026Y) Detected Amount ug/Kg (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	5.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	5.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	5.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	5.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	5.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	5.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	5.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	5.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	5.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	5.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		49.6	250.0	99.3	49.4	250.0	98.8	52.0	250	104.0	44.5	250	89
Dibromofluoromethane	1868-53-7		53.0	250.0	105.9	56.1	250.0	112	55.1	250	110.1	49.7	250	99
Toluene-d8	2037-26-5		52.0	250.0	104	52.3	250.0	105	53.9	250	108	52.9	250	106
4-Bromofluorobenzene	460-00-4		45.6	250.0	91.2	46.2	250.0	92.3	48.7	250	97	51.5	250	103

* Surogate recoveries out of range, Previous dilutions with in range.
PQL is set as low point on the curve
J result is above MDL but below PQL

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco-Systems Inc.
Location: **HER_CM01-SD-090303**
File #: BT89028

	Date	Time	Analyst
Collected:	09/03/03	13:45	Client
Received:	09/03/03	16:00	LR
Analyzed:	09/18/03	14:10	MGJ

Sample Type: Soil
Analysis Method: 8260B
Project Number: 007656

Compound Name	CAS Number	PQL ug/Kg (ppb)	SAMPLE Detected Amount ug/Kg (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/Kg (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT89026Z) Detected Amount ug/Kg (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT89026Y) Detected Amount ug/Kg (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			50.7	250	101	47.8	250	96
Benzene	71-43-2	5.00	ND			ND			55.1	250	110	42.5	250	85
Trichloroethene	79-01-6	5.00	ND			ND			53.9	250	108	50.8	250	102
Toluene	108-88-3	5.00	7.28			ND			48.7	250	97	52.7	250	105
Chlorobenzene	108-90-7	5.00	ND			ND			45.2	250	90	45.4	250	91
Bromobenzene	108-86-1	5.00	7.67			ND			4.44 J			4.68 J		
Bromochloromethane	74-97-5	5.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	5.00	ND			ND			ND			ND		
Bromoform	75-25-2	5.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	5.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	5.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	5.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	5.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	5.00	ND			ND			ND			ND		
Chloromethane	74-87-3	5.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	5.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	5.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	5.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	5.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	5.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	5.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	5.00	3.21 J			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	5.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	5.00	5.07			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	5.00	ND			ND			3.60 J			4.29 J		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	5.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	5.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	5.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	5.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	5.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	5.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	5.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	5.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	5.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	5.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	5.00	ND			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	ND			ND			ND			ND		
n-Propylbenzene	103-65-1	5.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco-Systems Inc.
Location: **HER_CM01-SD-090303**
File #: BT89028

	Date	Time	Analyst
Collected:	09/03/03	13:45	Client
Received:	09/03/03	16:00	LR
Analysis:	09/18/03	14:10	MGJ

Sample Type: Soil
Analysis Method: 8260B
Project Number: 007656

Compound Name	CAS Number	PQL ug/Kg (ppb)	SAMPLE Detected Amount ug/Kg (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/Kg (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT89026Z) Detected Amount ug/Kg (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT89026Y) Detected Amount ug/Kg (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	5.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	5.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	5.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	5.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	5.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	5.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	5.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	5.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	5.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	5.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		49.1	250.0	98.2	49.4	250.0	98.8	52.0	250	104.0	44.5	250	89
Dibromofluoromethane	1868-53-7		43.5	250.0	87.0	56.1	250.0	112	55.1	250	110.1	49.7	250	99
Toluene-d8	2037-26-5		54.9	250.0	110	52.3	250.0	105	53.9	250	108	52.9	250	106
4-Bromofluorobenzene	460-00-4		50.2	250.0	100.3	46.2	250.0	92.3	48.7	250	97	51.5	250	103

* Surogate recoveries out of range, Previous dilutions with in range.
PQL is set as low point on the curve
J result is above MDL but below PQL

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco-Systems, Inc.
Location: **HER-GP02-GW**
File #: BT88679

	Date	Time	Analyst
Collected:	08/11/03	13:50	SR
Received:	08/11/03	17:00	LR
Analyzed:	08/11/03	18:00	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007403

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88703) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	1.05	15.0			ND			59.8	250	120	58.7	250	117
Benzene	71-43-2	1.00	70500			ND			58.3	250	117	58.2	250	116
Trichloroethene	79-01-6	1.00	2.33			ND			59.9	250	120	56.8	250	114
Toluene	108-88-3	1.00	4800			ND			59.2	250	118	58.4	250	117
Chlorobenzene	108-90-7	1.00	71.2			ND			53.8	250	108	55.8	250	112
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	1.71			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	1.49	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	3.76			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	223			ND			ND			ND		
Chloroethane	75-00-3	1.11	18.4			ND			ND			ND		
Chloroform	66-67-3	1.00	317			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	6.06			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	1.78			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	2.40			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	3.10	15.0			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	27.8			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	46.1			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	1.05	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	20.3			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	1.03	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	115			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	1.11			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	2.10			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	61.7			ND			ND			ND		
Methylene chloride	75-09-2	1.28	ND			ND			12.4			12.0		
Naphthalene	91-20-3	1.10	20.4			ND			ND			ND		
n-Propylbenzene	103-65-1	1.00	ND			ND			72.1			71.2		
									ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco-Systems, Inc.
Location: **HER-GP02-GW**
File #: BT88679

	Date	Time	Analyst
Collected:	08/11/03	13:50	SR
Received:	08/11/03	17:00	LR
Analysis:	08/11/03	18:00	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007403

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE DUP (BT88703) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP (BT88703) Spike Amount ng	MATRIX SPIKE DUP (BT88703) Spike % Recovery	MATRIX SPIKE DUP (BT88703) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP (BT88703) Spike Amount ng	MATRIX SPIKE DUP (BT88703) Spike % Recovery
Styrene	100-42-5	1.00	4.49			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	1.03	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	30.9			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	1.36	8.16			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	1.25	10.1			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	39.4			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	1.19	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	5.33			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	3.76			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	3.07			ND			ND			ND		
Xylenes (total)	1330-20-7	1.50	466			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		327.2	250.0	654.5 *	45.7	250.0	91.3	48.0	250	95.9	46.0	250	92.1
Dibromofluoromethane	1868-53-7		32.0	250.0	63.9 *	46.2	250.0	92.3	44.5	250	89.0	44.0	250	88.0
Toluene-d8	2037-26-5		49.4	250.0	98.8	51.6	250.0	103.1	54.7	250	109	54.2	250	108
4-Bromofluorobenzene	460-00-4		45.6	250.0	91.1	56.0	250.0	112.0	52.3	250	105	50.9	250	102

PQL is set as low point on the curve

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP02-GW
File #: BT88679

	Date		Analyst
Collected:	08/11/03	13:50	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		3.94	5.00	78.8	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

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QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco-Systems Inc.
Location: **HER_GP04- 7-8**
File #: BT88678

	Date	Time	Analyst
Collected:	08/11/03	11:15	Client
Received:	08/29/03	8:30	LR
Analyzed:	09/09/03	15:52	MGJ

Sample Type: Soil
Analysis Method: 8260B
Project Number: 007403

Compound Name	CAS Number	PQL ug/Kg (ppb)	SAMPLE Detected Amount ug/Kg (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/Kg (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/Kg (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/Kg (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.25	ND			ND			62.7	250	125	61.1	250	122
Benzene	71-43-2	5.00	62.0			ND			59.5	250	119	58.3	250	117
Trichloroethene	79-01-6	5.00	ND			ND			58.5	250	117	58.1	250	116
Toluene	108-88-3	5.00	43.4			ND			49.9	250	100	49.0	250	98
Chlorobenzene	108-90-7	5.00	ND			ND			47.1	250	94	47.1	250	94
Bromobenzene	108-86-1	5.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	5.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	5.00	ND			ND			ND			ND		
Bromoform	75-25-2	5.00	ND			ND			ND			ND		
Bromomethane	74-83-9	7.45	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	5.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	5.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	5.00	ND			ND			4.63 J			5.39		
Carbon Tetrachloride	56-23-5	5.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.55	ND			ND			ND			ND		
Chloroform	66-67-3	5.00	ND			ND			ND			ND		
Chloromethane	74-87-3	5.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	5.00	9.50			ND			ND			ND		
4-Chlorotoluene	106-43-4	5.00	4.47 J			ND			ND			ND		
Dibromochloromethane	124-48-1	5.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	5.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	5.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	5.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	5.00	4.09 J			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	5.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	5.00	4.56 J			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	5.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	15.50	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	5.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	5.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.25	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	5.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	5.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.15	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	5.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	5.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	5.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	5.00	19.0			ND			ND			ND		
Hexachlorobutadiene	87-68-3	5.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	5.00	1.04 J			ND			ND			ND		
p-Isopropyltoluene	99-87-6	5.00	ND			ND			4.62 J			5.4		
Methylene chloride	75-09-2	6.40	ND			ND			ND			ND		
Naphthalene	91-20-3	5.50	ND			ND			38.6			35.75		
n-Propylbenzene	103-65-1	5.00	7.64			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco-Systems Inc.
Location: **HER_GP04- 7-8**
File #: BT88678

	Date	Time	Analyst
Collected:	08/11/03	11:15	Client
Received:	08/29/03	8:30	LR
Analysis:	09/09/03	15:52	MGJ

Sample Type: Soil
Analysis Method: 8260B
Project Number: 007403

Compound Name	CAS Number	PQL ug/Kg (ppb)	SAMPLE Detected Amount ug/Kg (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/Kg (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/Kg (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/Kg (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	5.00	23.5			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.15	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	5.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	5.00	26.0			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	6.80	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	6.25	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	5.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	5.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	5.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.95	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	5.00	36.0			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	5.00	22.2			ND			ND			ND		
Vinyl chloride	75-01-4	5.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	7.50	304			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		40.5	250.0	81	54.0	250.0	108	48.2	250	96.4	43.9	250	87.8
Dibromofluoromethane	1868-53-7		0.0	250.0	0.0 *	50.9	250.0	102	50.0	250	100	50.3	250	101
Toluene-d8	2037-26-5		45.2	250.0	90	50.9	250.0	102	50.6	250	101	49.8	250	99.6
4-Bromofluorobenzene	460-00-4		72.4	250.0	145 *	55.3	250.0	111	53.5	250	107	55.1	250	110

* Surogate recoveries out of range, Previous dilutions with in range.
PQL is set as low point on the curve
J result is above MDL but below PQL

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco-Systems, Inc.
Location: **HER-GP04-GW**
File #: BT88680

	Date	Time	Analyst
Collected:	08/11/03	15:40	SR
Received:	08/11/03	17:00	LR
Analyzed:	08/11/03	23:22	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007403

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88703) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.8	250	120	58.7	250	117
Benzene	71-43-2	1.00	269			ND			58.3	250	117	58.2	250	116
Trichloroethene	79-01-6	1.00	ND			ND			59.9	250	120	56.8	250	114
Toluene	108-88-3	1.00	80.9			ND			59.2	250	118	58.4	250	117
Chlorobenzene	108-90-7	1.00	ND			ND			53.8	250	108	55.8	250	112
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	1.23			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	1.15			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	5.25			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	4.10			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	33.8			ND			12.4			12.0		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	16.45			ND			72.1			71.2		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco-Systems, Inc.
Location: **HER-GP04-GW**
File #: BT88680

	Date	Time	Analyst
Collected:	08/11/03	15:40	SR
Received:	08/11/03	17:00	LR
Analysis:	08/11/03	23:22	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007403

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE DUP (BT88703) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP (BT88703) Spike Amount ng	MATRIX SPIKE DUP (BT88703) Spike % Recovery	MATRIX SPIKE DUP (BT88703) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP (BT88703) Spike Amount ng	MATRIX SPIKE DUP (BT88703) Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	3.88 J			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	3.03 J			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	10.67			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	4.08			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	12.3			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		40.5	250.0	81.0	45.7	250.0	91.3	48.0	250	95.9	46.0	250	92.1
Dibromofluoromethane	1868-53-7		46.9	250.0	93.7	46.2	250.0	92.3	44.5	250	89.0	44.0	250	88.0
Toluene-d8	2037-26-5		51.3	250.0	102.6	51.6	250.0	103.1	54.7	250	109	54.2	250	108
4-Bromofluorobenzene	460-00-4		51.0	250.0	102.1	56.0	250.0	112.0	52.3	250	105	50.9	250	102

PQL is set as low point on the curve
J result is above MDL but below PQL

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP04-GW
File #: BT88680

	Date		Analyst
Collected:	08/11/03	15:40	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	1.92			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		3.81	5.00	76.2	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

Certified by: Michael S. Bonner, Ph.D
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QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA

VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.

Location: **HER-GP05-GW**

File #: BT88707

	Date	Time	Analyst
Collected:	08/12/03	14:23	Client
Received:	08/12/03	17:15	JR
Analyzed:	08/13/03	5:34	MGJ

Sample Type: Water

Analysis Method: 8260B

Project Number: 007415

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE			BLANK			MATRIX SPIKE (BT88702)			MATRIX SPIKE DUP (BT88703)		
			Detected Amount ug/L (ppb)	Amount ug	% Recovery	Detected Amount ug/L (ppb)	Amount ug	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ng	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ng	Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.8	250	120	58.7	250	117
Benzene	71-43-2	1.00	ND			ND			58.3	250	117	58.2	250	116
Trichloroethene	79-01-6	1.00	ND			ND			59.9	250	120	56.8	250	114
Toluene	108-88-3	1.00	20.7			ND			59.2	250	118	58.4	250	117
Chlorobenzene	108-90-7	1.00	ND			ND			53.8	250	108	55.8	250	112
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			12.4			12.0		
Naphthalene	91-20-3	5.00	ND			ND			ND			ND		
n-Propylbenzene	103-65-1	1.00	ND			ND			72.1			71.2		
									ND			ND		

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QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP05-GW**
File #: BT88707

	Date	Time	Analyst
Collected:	08/12/03	14:23	Client
Received:	08/12/03	17:15	JR
Analysis:	08/13/03	5:34	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007415

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		48.0	250	96.1	43.2	250	86.5	48.0	250	95.9	46.0	250	92.1
Dibromofluoromethane	1868-53-7		43.1	250	86.3	43.7	250	87.5	44.5	250	89.0	44.0	250	88.0
Toluene-d8	2037-26-5		54.5	250	109	54.0	250	108	54.7	250	109	54.2	250	108
4-Bromofluorobenzene	460-00-4		51.1	250	102	50.8	250	102	52.3	250	105	50.9	250	102

PQL is set as low point on the curve

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP05-GW
File #: BT88707

	Date		Analyst
Collected:	08/12/03	14:23	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		3.54	5.00	70.8	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

*PQL's are the lowest point on the calibration curve

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

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QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP06-GW**
File #: BT88704

	Date	Time	Analyst
Collected:	08/12/03	11:00	Client
Received:	08/12/03	13:30	JR
Analyzed:	08/13/03	6:38	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007413

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88703) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.8	250	120	58.7	250	117
Benzene	71-43-2	1.00	ND			ND			58.3	250	117	58.2	250	116
Trichloroethene	79-01-6	1.00	ND			ND			59.9	250	120	56.8	250	114
Toluene	108-88-3	1.00	13.6			ND			59.2	250	118	58.4	250	117
Chlorobenzene	108-90-7	1.00	ND			ND			53.8	250	108	55.8	250	112
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			12.4			12.0		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	ND			ND			72.1			71.2		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP06-GW**
File #: BT88704

	Date	Time	Analyst
Collected:	08/12/03	11:00	Client
Received:	08/12/03	13:30	JR
Analysis:	08/13/03	6:38	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007413

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		46.6	250	93.2	43.2	250	86.5	48.0	250	95.9	46.0	250	92.1
Dibromofluoromethane	1868-53-7		44.6	250	89.2	43.7	250	87.5	44.5	250	89.0	44.0	250	88.0
Toluene-d8	2037-26-5		54.7	250	109	54.0	250	108	54.7	250	109	54.2	250	108
4-Bromofluorobenzene	460-00-4		48.9	250	97.8	50.8	250	102	52.3	250	105	50.9	250	102

PQL is set as low point on the curve

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP06-GW
File #: BT88704

	Date		Analyst
Collected:	08/12/03	11:00	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Spike Amount ug/L	SAMPLE Spike % Recovery	METHOD BLANK Detected Amount ug/L (ppb)	METHOD BLANK Spike Amount ug/L	METHOD BLANK Spike % Recovery	MATRIX SPIKE Detected Amount ug/mL (ppm)	MATRIX SPIKE Spike Amount ug/mL	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUPLICATE Detected Amount ug/mL (ppm)	MATRIX SPIKE DUPLICATE Spike Amount ug/mL	MATRIX SPIKE DUPLICATE Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.64	5.00	92.8	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

*PQL's are the lowest point on the calibration curve

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL ING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA

VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.

Location: **HER-GP07-GW**

File #: BT88708

	Date	Time	Analyst
Collected:	08/12/03	14:23	Client
Received:	08/12/03	17:15	JR
Analyzed:	08/13/03	7:42	MGJ

Sample Type: Water

Analysis Method: 8260B

Project Number: 007415

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88703) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.8	250	120	58.7	250	117
Benzene	71-43-2	1.00	89.6			ND			58.3	250	117	58.2	250	116
Trichloroethene	79-01-6	1.00	ND			ND			59.9	250	120	56.8	250	114
Toluene	108-88-3	1.00	8.35			ND			59.2	250	118	58.4	250	117
Chlorobenzene	108-90-7	1.00	ND			ND			53.8	250	108	55.8	250	112
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			12.4			12.0		
Naphthalene	91-20-3	5.00	ND			ND			ND			ND		
n-Propylbenzene	103-65-1	1.00	ND			ND			72.1			71.2		
									ND			ND		

BONNER ANALYTIC. TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA

VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP07-GW**
File #: BT88708

	Date	Time	Analyst
Collected:	08/12/03	14:23	Client
Received:	08/12/03	17:15	JR
Analysis:	08/13/03	7:42	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007415

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		48.0	250	96.1	43.2	250	86.5	48.0	250	95.9	46.0	250	92.1
Dibromofluoromethane	1868-53-7		43.1	250	86.3	43.7	250	87.5	44.5	250	89.0	44.0	250	88.0
Toluene-d8	2037-26-5		54.5	250	109	54.0	250	108	54.7	250	109	54.2	250	108
4-Bromofluorobenzene	460-00-4		51.1	250	102	50.8	250	102	52.3	250	105	50.9	250	102

PQL is set as low point on the curve

Certified by: Michael S. Bonner,Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP07-GW
File #: BT88708

	Date		Analyst
Collected:	08/12/03	16:20	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	0.604			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		3.86	5.00	77.2	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

*PQL's are the lowest point on the calibration curve

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP08-GW**
File #: BT88700

	Date	Time	Analyst
Collected:	08/12/03	8:52	Client
Received:	08/12/03	13:30	JR
Analyzed:	08/13/03	8:47	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007413

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702) Detected Amount ug/L (ppb)	MATRIX SPIKE (BT88702) Spike Amount ng	MATRIX SPIKE (BT88702) Spike % Recovery	MATRIX SPIKE DUP (BT88703) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP (BT88703) Spike Amount ng	MATRIX SPIKE DUP (BT88703) Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.8	250	120	58.7	250	117
Benzene	71-43-2	1.00	ND			ND			58.3	250	117	58.2	250	116
Trichloroethene	79-01-6	1.00	ND			ND			59.9	250	120	56.8	250	114
Toluene	108-88-3	1.00	10.4			ND			59.2	250	118	58.4	250	117
Chlorobenzene	108-90-7	1.00	ND			ND			53.8	250	108	55.8	250	112
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	11.1			ND			12.4			12.0		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	52.4			ND			72.1			71.2		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP08-GW**
File #: BT88700

	Date	Time	Analyst
Collected:	08/12/03	8:52	Client
Received:	08/12/03	13:30	JR
Analysis:	08/13/03	8:47	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007413

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		46.3	250	92.6	43.2	250	86.5	48.0	250	95.9	46.0	250	92.1
Dibromofluoromethane	1868-53-7		43.3	250	86.6	43.7	250	87.5	44.5	250	89.0	44.0	250	88.0
Toluene-d8	2037-26-5		54.7	250	109	54.0	250	108	54.7	250	109	54.2	250	108
4-Bromofluorobenzene	460-00-4		49.4	250	98.7	50.8	250	102	52.3	250	105	50.9	250	102

PQL is set as low point on the curve

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP08-GW
File #: BT88700

Collected: 08/12/03 8:52 Client
Extracted: 08/15/03 9:45 SCF
Analyzed: 09/12/03 SCF
Date Analyst

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Spike Amount ug/L	SAMPLE Spike % Recovery	METHOD BLANK Detected Amount ug/L (ppb)	METHOD BLANK Spike Amount ug/L	METHOD BLANK Spike % Recovery	MATRIX SPIKE Detected Amount ug/mL (ppm)	MATRIX SPIKE Spike Amount ug/mL	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUPLICATE Detected Amount ug/mL (ppm)	MATRIX SPIKE DUPLICATE Spike Amount ug/mL	MATRIX SPIKE DUPLICATE Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	1.52			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.88	5.00	97.9	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

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QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP08-Dup-GW**
File #: BT88701

	Date	Time	Analyst
Collected:	08/12/03	8:52	Client
Received:	08/12/03	13:30	JR
Analyzed:	08/13/03	9:51	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007413

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702) Detected Amount ug/L (ppb)	MATRIX SPIKE (BT88702) Spike Amount ng	MATRIX SPIKE (BT88702) Spike % Recovery	MATRIX SPIKE DUP (BT88703) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP (BT88703) Spike Amount ng	MATRIX SPIKE DUP (BT88703) Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.8	250	120	58.7	250	117
Benzene	71-43-2	1.00	ND			ND			58.3	250	117	58.2	250	116
Trichloroethene	79-01-6	1.00	ND			ND			59.9	250	120	56.8	250	114
Toluene	108-88-3	1.00	7.50			ND			59.2	250	118	58.4	250	117
Chlorobenzene	108-90-7	1.00	ND			ND			53.8	250	108	55.8	250	112
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	11.5			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			12.4			12.0		
Naphthalene	91-20-3	5.00	55.7			ND			ND			ND		
n-Propylbenzene	103-65-1	1.00	ND			ND			72.1			71.2		
									ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP08-Dup-GW**
File #: BT88701

	Date	Time	Analyst
Collected:	08/12/03	8:52	Client
Received:	08/12/03	13:30	JR
Analysis:	08/13/03	9:51	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007413

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		49.3	250	98.6	43.2	250	86.5	48.0	250	95.9	46.0	250	92.1
Dibromofluoromethane	1868-53-7		43.3	250	86.7	43.7	250	87.5	44.5	250	89.0	44.0	250	88.0
Toluene-d8	2037-26-5		54.7	250	109	54.0	250	108	54.7	250	109	54.2	250	108
4-Bromofluorobenzene	460-00-4		51.3	250	103	50.8	250	102	52.3	250	105	50.9	250	102

PQL is set as low point on the curve

Certified by: Michael S. Bonner,Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP08-GW Dup
File #: BT88701

	Date		Analyst
Collected:	08/12/03	8:52	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		7.25	5.00	145.0	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

Certified by: Michael S. Bonner
Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP08-GW Matrix Spike
File #: BT88702

	Date		Analyst
Collected:	08/12/03	8:52	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Spike Amount ug/L	SAMPLE Spike % Recovery	METHOD BLANK Detected Amount ug/L (ppb)	METHOD BLANK Spike Amount ug/L	METHOD BLANK Spike % Recovery	MATRIX SPIKE Detected Amount ug/mL (ppm)	MATRIX SPIKE Spike Amount ug/mL	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUPLICATE Detected Amount ug/mL (ppm)	MATRIX SPIKE DUPLICATE Spike Amount ug/mL	MATRIX SPIKE DUPLICATE Spike % Recovery
Dioxenethion	0.400	4.56			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	5.30			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	4.81			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.55	5.00	91.0	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

Certified by: Michael S. Bonner
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BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP08-GW Matrix Spike Dup
File #: BT88703

	Date		Analyst
Collected:	08/12/03	8:52	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	4.85			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	4.43			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	4.77			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.18	5.00	83.6	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

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QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP09-GW**
File #: BT88740

	Date	Time	
Collected:	08/13/03	10:47	Client
Received:	08/13/03	12:00	JR
Analyzed:	08/13/03	20:01	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007443

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702) Detected Amount ug/L (ppb)	MATRIX SPIKE (BT88702) Spike Amount ng	MATRIX SPIKE (BT88702) Spike % Recovery	MATRIX SPIKE DUP (BT88703) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP (BT88703) Spike Amount ng	MATRIX SPIKE DUP (BT88703) Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.8	250	120	58.7	250	117
Benzene	71-43-2	1.00	ND			ND			58.3	250	117	58.2	250	116
Trichloroethene	79-01-6	1.00	ND			ND			59.9	250	120	56.8	250	114
Toluene	108-88-3	1.00	ND			ND			59.2	250	118	58.4	250	117
Chlorobenzene	108-90-7	1.00	ND			ND			53.8	250	108	55.8	250	112
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			12.4			12.0		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	ND			ND			72.1			71.2		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP09-GW**
File #: BT88740

	Date	Time	Analyst
Collected:	08/13/03	10:47	Client
Received:	08/13/03	12:00	JR
Analysis:	08/13/03	20:01	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007443

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		52.6	250	105	49.3	250	98.7	48.0	250	95.9	46.0	250	92.1
Dibromofluoromethane	1868-53-7		50.0	250	99.9	43.1	250	86.2	44.5	250	89.0	44.0	250	88.0
Toluene-d8	2037-26-5		54.9	250	110	55.0	250	110	54.7	250	109	54.2	250	108
4-Bromofluorobenzene	460-00-4		51.6	250	103	51.3	250	103	52.3	250	105	50.9	250	102

PQL is set as low point on the curve

Certified by: Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
BASE NEUTRALS AND ACIDS - GC/MS ANALYSIS DATA

Client: Hercules
Location: HER-GP09-GW
File #: BT88745

	Date	Time	Analyst
Collected:	8/13/03	1328	Client
Extracted:	8/18/03	800	WTD
Analyzed:	8/21/03	151	WTD

Sample Type: Water
Extraction Method: 3510C
Analysis Method: 8270C

Compound Name	CAS Number	PQL* ug/L (ppb)	BT88745 Detected Amount ug/L (ppb)	BT88745 Spike Amount ug	BT88745 Spike % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Spike Amount ug	BLANK Spike % Recovery	Matrix Spike(BT88747) Detected Amount ng/ul in the extract	Matrix Spike Spike Amount ug	Matrix Spike Spike % Recovery	Matrix Spike Duplicate Detected Amount ng/ul in the extract	Matrix Spike Duplicate Spike Amount ug	Matrix Spike Duplicate Spike % Recovery
Phenol	108-95-2	10.0	ND			ND			38.93	150.00	25.95	6.68	150.00	4.45
Bis(2-chloroethyl)ether	111-44-4	10.0	ND			ND			ND			ND		
2-Chlorophenol	95-57-8	10.0	ND			ND			82.81	150.00	55.21	82.81	150.00	55.21
1,3-Dichlorobenzene	541-73-1	10.0	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	10.0	ND			ND			37.60	100.00	37.60	46.80	100.00	46.80
Benzyl Alcohol	100-51-6	10.0	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	10.0	ND			ND			ND			ND		
2-Methylphenol	95-48-7	10.0	ND			ND			ND			ND		
Bis(2-chloroisopropyl)ether	108-60-1	10.0	ND			ND			ND			ND		
4-Methylphenol	106-44-5	10.0	ND			ND			ND			ND		
Hexachloroethane	67-72-1	10.0	ND			ND			ND			ND		
N-Nitroso-di-N-propylamine	621-64-7	10.0	ND			ND			61.42	100.00	61.42	73.39	100.00	73.39
Nitrobenzene	98-95-3	10.0	ND			ND			ND			ND		
Isophorone	78-59-1	10.0	ND			ND			ND			ND		
2,4-Dimethylphenol	105-67-9	10.0	ND			ND			ND			ND		
2-Nitrophenol	88-75-5	10.0	ND			ND			ND			ND		
Benzoic Acid	65-85-0	10.0	ND			ND			ND			ND		
Bis(2-chloroethoxy)methane	111-91-1	10.0	ND			ND			ND			ND		
2,4-Dichlorophenol	120-83-2	10.0	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	10.0	ND			ND			40.94	100.00	40.94	50.75	100.00	50.75
Naphthalene	91-20-3	10.0	ND			ND			ND			ND		
4-Chloroaniline	106-47-8	10.0	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	10.0	ND			ND			ND			ND		
4-Chloro-3-methylphenol	59-50-7	10.0	ND			ND			105.32	150.00	70.21	57.22	150.00	38.15
2-Methylnaphthalene	91-57-6	10.0	ND			ND			ND			ND		
Hexachlorocyclopentadiene	77-47-4	10.0	ND			ND			ND			ND		
2,4,6-Trichlorophenol	88-06-2	10.0	ND			ND			ND			ND		
2,4,5-Trichlorophenol	95-95-4	10.0	ND			ND			ND			ND		
2-Chloronaphthalene	91-58-7	10.0	ND			ND			ND			ND		
2-Nitroaniline	88-74-4	10.0	ND			ND			ND			ND		
Dimethylphthalate	131-11-3	10.0	ND			ND			ND			ND		
Acenaphthylene	208-96-8	10.0	ND			ND			ND			ND		
2,6-Dinitrotoluene	606-20-2	10.0	ND			ND			ND			ND		
3-Nitroaniline	99-09-2	10.0	ND			ND			ND			ND		
Acenaphthene	83-32-9	10.0	ND			ND			59.25	100.00	59.25	64.64	100.00	64.64
2,4-Dinitrophenol	51-28-5	10.0	ND			ND			ND			ND		
4-Nitrophenol	100-02-7	10.0	ND			ND			30.77	150.00	20.51	18.29	150.00	12.19
Dibenzofuran	132-64-9	10.0	ND			ND			ND			ND		
2,4-Dinitrotoluene	121-14-2	10.0	ND			ND			73.18	100.00	73.18	76.06	100.00	76.06
Diethylphthalate	84-66-2	10.0	ND			ND			ND			ND		
Fluorene	86-73-7	10.0	ND			ND			ND			ND		
4-Chlorophenyl-phenylether	7005-72-3	10.0	ND			ND			ND			ND		
4-Nitroaniline	100-01-6	10.0	ND			ND			ND			ND		
4,6-Dinitro-2-methylphenol	534-52-1	10.0	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
BASE NEUTRALS AND ACIDS - GC/MS ANALYSIS DATA

Client: **Hercules**
Location: HER-GP09-GW
File #: BT88745

	Date	Time	Analyst
Collection:	8/13/03	1328	Client
Extraction:	8/18/03	800	WTD
Analysis:	8/21/03	151	WTD

Sample Type: Water
Extraction Method: 3510C
Analysis Method: 8270C

Compound Name	CAS Number	PQL* ug/L (ppb)	BT88745 Detected Amount ug/L (ppb)	BT88745 Spike Amount ug	BT88745 Spike % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Spike Amount ug	BLANK Spike % Recovery	Matrix Spike Detected Amount ng/ul in the extract	Matrix Spike Spike Amount ug	Matrix Spike Spike % Recovery	Matrix Spike Duplicate Detected Amount ng/ul in the extract	Matrix Spike Duplicate Spike Amount ug	Matrix Spike Duplicate Spike % Recovery
N-Nitrosodiphenylamine	86-30-6	10.0	ND			ND			ND			ND		
4-Bromophenyl-phenylether	101-55-3	10.0	ND			ND			ND			ND		
Hexachlorobenzene	118-74-1	10.0	ND			ND			ND			ND		
Pentachlorophenol	87-86-5	10.0	ND			ND			144.86	150.00	96.57	63.51	150.00	42.34
Phenanthrene	85-01-8	10.0	ND			ND			ND			ND		
Anthracene	120-12-7	10.0	ND			ND			ND			ND		
Di-n-butylphthalate	84-74-2	10.0	ND			ND			ND			ND		
Fluoranthene	206-44-0	10.0	ND			ND			ND			ND		
Pyrene	129-00-0	10.0	ND			ND			69.76	100.00	69.76	73.39	100.00	73.39
Butylbenzylphthalate	85-68-7	10.0	ND			ND			ND			ND		
Benzo(a)anthracene	56-55-3	10.0	ND			ND			ND			ND		
3,3'-Dichlorobenzidiene	91-94-1	10.0	ND			ND			ND			ND		
Chrysene	218-01-9	10.0	ND			ND			ND			ND		
Bis(2-ethylhexyl)phthalate	117-81-7	10.0	ND			ND			ND			ND		
Di-n-octylphthalate	117-84-0	10.0	ND			ND			ND			ND		
Benzo(b)fluoranthene	205-99-2	10.0	ND			ND			ND			ND		
Benzo(k)fluoranthene	207-08-9	10.0	ND			ND			ND			ND		
Benzo(a)pyrene	50-32-8	10.0	ND			ND			ND			ND		
Indeno(1,2,3-c,d)pyrene	193-39-5	10.0	ND			ND			ND			ND		
Dibenzo(a,h)anthracene	53-70-3	10.0	ND			ND			ND			ND		
Benzo(g,h,I)perylene	191-24-2	10.0	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
2-Fluorophenol			42.38	200.00	21.19	70.09	200.00	35.05	46.24	200.00	23.12	1.24	200.00	0.62 *
Phenol-d5			37.41	200.00	18.71	49.78	200.00	24.89	37.40	200.00	18.70	5.97	200.00	2.99 *
Nitrobenzene-d5			58.55	100.00	58.55	60.18	100.00	60.18	58.22	100.00	58.22	70.40	100.00	70.40
2-Fluorobiphenyl			67.36	100.00	67.36	50.59	100.00	50.59	60.87	100.00	60.87	68.93	100.00	68.93
2,4,6-Tribromophenol			98.67	200.00	49.34	131.52	200.00	65.76	127.57	200.00	63.79	3.22	200.00	1.61 *
Terphenyl-d14			72.26	100.00	72.26	75.96	100.00	75.96	75.12	100.00	75.12	79.84	100.00	79.84

*PQL is defined as the low point on the calibratrion curve.

Certified by: Michael S. Bonner

Micheal S. Bonner,Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP09-GW
File #: BT88740

	Date		Analyst
Collected:	08/13/03	10:47	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	Spike % Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.00	5.00	80.0	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

*PQL's are the lowest point on the calibration curve

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

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QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP10-GW**
File #: BT88746

	Date	Time	Analyst
Collected:	08/13/03	14:45	Client
Received:	08/13/03	16:35	JR
Analyzed:	08/24/03	14:53	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007444

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702Z) Detected Amount ug/L (ppb)	MS Spike Amount ng	MS Spike % Recovery	MATRIX SPIKE DUP (BT88703Z) Detected Amount ug/L (ppb)	MSD Spike Amount ng	MSD Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.7	250	119	59.3	250	119
Benzene	71-43-2	1.00	ND			ND			56.1	250	112	53.3	250	107
Trichloroethene	79-01-6	1.00	ND			ND			59.2	250	118	56.6	250	113
Toluene	108-88-3	1.00	ND			ND			39.8	250	79.6	56.5	250	113
Chlorobenzene	108-90-7	1.00	ND			ND			40.5	250	80.9	44.7	250	89.3
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			ND			ND		
Methylene chloride	75-09-2	5.00	ND			ND			5.64			5.35		
Naphthalene	91-20-3	5.00	ND			ND			ND			ND		
n-Propylbenzene	103-65-1	1.00	ND			ND			78.6			77.3		
									ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP10-GW**
File #: BT88746

	Date	Time	Analyst
Collected:	08/13/03	14:45	Client
Received:	08/13/03	16:35	JR
Analysis:	08/24/03	14:53	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007444

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		45.3	250	90.6	54.0	250	108	52.2	250	104	53.0	250	106
Dibromofluoromethane	1868-53-7		47.0	250	93.9	50.9	250	102	54.0	250	108	57.9	250	116
Toluene-d8	2037-26-5		53.7	250	107	50.9	250	102	51.7	250	103	49.5	250	98.9
4-Bromofluorobenzene	460-00-4		55.9	250	112	55.8	250	112	50.3	250	101	48.6	250	97.2

PQL is set as low point on the curve

Certified by: Michael S. Bonner,Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
BASE NEUTRALS AND ACIDS - GC/MS ANALYSIS DATA

Client: Hercules
Location: HER-GP10-GW
File #: BT88746

	Date	Time	Analyst
Collected:	8/13/03	1445	Client
Extracted:	8/18/03	800	WTD
Analyzed:	8/21/03	249	WTD

Sample Type: Water
Extraction Method: 3510C
Analysis Method: 8270C

Compound Name	CAS Number	PQL* ug/L (ppb)	BT88746			BLANK			Matrix Spike(BT88747)			Matrix Spike Duplicate		
			Detected Amount ug/L (ppb)	Spike		Detected Amount ug/L (ppb)	Spike		Detected Amount ng/ul in the extract	Spike		Detected Amount ng/ul in the extract	Spike	
				Amount ug	% Recovery		Amount ug	% Recovery		Amount ug	% Recovery		Amount ug	% Recovery
Phenol	108-95-2	10.0	ND			ND			38.93	150.00	25.95	6.68	150.00	4.45
Bis(2-chloroethyl)ether	111-44-4	10.0	ND			ND			ND			ND		
2-Chlorophenol	95-57-8	10.0	ND			ND			82.81	150.00	55.21	82.81	150.00	55.21
1,3-Dichlorobenzene	541-73-1	10.0	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	10.0	ND			ND			37.60	100.00	37.60	46.80	100.00	46.80
Benzyl Alcohol	100-51-6	10.0	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	10.0	ND			ND			ND			ND		
2-Methylphenol	95-48-7	10.0	ND			ND			ND			ND		
Bis(2-chloroisopropyl)ether	108-60-1	10.0	ND			ND			ND			ND		
4-Methylphenol	106-44-5	10.0	ND			ND			ND			ND		
Hexachloroethane	67-72-1	10.0	ND			ND			ND			ND		
N-Nitroso-di-N-propylamine	621-64-7	10.0	ND			ND			61.42	100.00	61.42	73.39	100.00	73.39
Nitrobenzene	98-95-3	10.0	ND			ND			ND			ND		
Isophorone	78-59-1	10.0	ND			ND			ND			ND		
2,4-Dimethylphenol	105-67-9	10.0	ND			ND			ND			ND		
2-Nitrophenol	88-75-5	10.0	ND			ND			ND			ND		
Benzoic Acid	65-85-0	10.0	ND			ND			ND			ND		
Bis(2-chloroethoxy)methane	111-91-1	10.0	ND			ND			ND			ND		
2,4-Dichlorophenol	120-83-2	10.0	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	10.0	ND			ND			40.94	100.00	40.94	50.75	100.00	50.75
Naphthalene	91-20-3	10.0	ND			ND			ND			ND		
4-Chloroaniline	106-47-8	10.0	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	10.0	ND			ND			105.32	150.00	70.21	57.22	150.00	38.15
4-Chloro-3-methylphenol	59-50-7	10.0	ND			ND			ND			ND		
2-Methylnaphthalene	91-57-6	10.0	ND			ND			ND			ND		
Hexachlorocyclopentadiene	77-47-4	10.0	ND			ND			ND			ND		
2,4,6-Trichlorophenol	88-06-2	10.0	ND			ND			ND			ND		
2,4,5-Trichlorophenol	95-95-4	10.0	ND			ND			ND			ND		
2-Chloronaphthalene	91-58-7	10.0	ND			ND			ND			ND		
2-Nitroaniline	88-74-4	10.0	ND			ND			ND			ND		
Dimethylphthalate	131-11-3	10.0	ND			ND			ND			ND		
Acenaphthylene	208-96-8	10.0	ND			ND			ND			ND		
2,6-Dinitrotoluene	606-20-2	10.0	ND			ND			ND			ND		
3-Nitroaniline	99-09-2	10.0	ND			ND			ND			ND		
Acenaphthene	83-32-9	10.0	ND			ND			59.25	100.00	59.25	64.64	100.00	64.64
2,4-Dinitrophenol	51-28-5	10.0	ND			ND			ND			ND		
4-Nitrophenol	100-02-7	10.0	ND			ND			30.77	150.00	20.51	18.29	150.00	12.19
Dibenzofuran	132-64-9	10.0	ND			ND			ND			ND		
2,4-Dinitrotoluene	121-14-2	10.0	ND			ND			73.18	100.00	73.18	76.06	100.00	76.06
Diethylphthalate	84-66-2	10.0	ND			ND			ND			ND		
Fluorene	86-73-7	10.0	ND			ND			ND			ND		
4-Chlorophenyl-phenylether	7005-72-3	10.0	ND			ND			ND			ND		
4-Nitroaniline	100-01-6	10.0	ND			ND			ND			ND		
4,6-Dinitro-2-methylphenol	534-52-1	10.0	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
BASE NEUTRALS AND ACIDS - GC/MS ANALYSIS DATA

Client: **Hercules**
Location: **HER-GP10-GW**
File #: **BT88746**

	Date	Time	Analyst
Collection:	8/13/03	1445	Client
Extraction:	8/18/03	800	WTD
Analysis:	8/21/03	249	WTD

Sample Type: Water
Extraction Method: 3510C
Analysis Method: 8270C

Compound Name	CAS Number	PQL* ug/L (ppb)	BT88746 Detected Amount ug/L (ppb)	BT88746 Spike Amount ug	BT88746 Spike % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Spike Amount ug	BLANK Spike % Recovery	Matrix Spike Detected Amount ng/ul in the extract	Matrix Spike Spike Amount ug	Matrix Spike Spike % Recovery	Matrix Spike Duplicate Detected Amount ng/ul in the extract	Matrix Spike Duplicate Spike Amount ug	Matrix Spike Duplicate Spike % Recovery
N-Nitrosodiphenylamine	86-30-6	10.0	ND			ND			ND			ND		
4-Bromophenyl-phenylether	101-55-3	10.0	ND			ND			ND			ND		
Hexachlorobenzene	118-74-1	10.0	ND			ND			ND			ND		
Pentachlorophenol	87-86-5	10.0	ND			ND			144.86	150.00	96.57	63.51	150.00	42.34
Phenanthrene	85-01-8	10.0	ND			ND			ND			ND		
Anthracene	120-12-7	10.0	ND			ND			ND			ND		
Di-n-butylphthalate	84-74-2	10.0	ND			ND			ND			ND		
Fluoranthene	206-44-0	10.0	ND			ND			ND			ND		
Pyrene	129-00-0	10.0	ND			ND			69.76	100.00	69.76	73.39	100.00	73.39
Butylbenzylphthalate	85-68-7	10.0	ND			ND			ND			ND		
Benzo(a)anthracene	56-55-3	10.0	ND			ND			ND			ND		
3,3'-Dichlorobenzidiene	91-94-1	10.0	ND			ND			ND			ND		
Chrysene	218-01-9	10.0	ND			ND			ND			ND		
Bis(2-ethylhexyl)phthalate	117-81-7	10.0	ND			ND			ND			ND		
Di-n-octylphthalate	117-84-0	10.0	ND			ND			ND			ND		
Benzo(b)fluoranthene	205-99-2	10.0	ND			ND			ND			ND		
Benzo(k)fluoranthene	207-08-9	10.0	ND			ND			ND			ND		
Benzo(a)pyrene	50-32-8	10.0	ND			ND			ND			ND		
Indeno(1,2,3-c,d)pyrene	193-39-5	10.0	ND			ND			ND			ND		
Dibenzo(a,h)anthracene	53-70-3	10.0	ND			ND			ND			ND		
Benzo(g,h,i)perylene	191-24-2	10.0	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
2-Fluorophenol			52.58	200.00	26.29	70.09	200.00	35.05	46.24	200.00	23.12	1.24	200.00	0.62 *
Phenol-d5			39.27	200.00	19.64	49.78	200.00	24.89	37.40	200.00	18.70	5.97	200.00	2.99 *
Nitrobenzene-d5			63.63	100.00	63.63	60.18	100.00	60.18	58.22	100.00	58.22	70.40	100.00	70.40
2-Fluorobiphenyl			69.72	100.00	69.72	50.59	100.00	50.59	60.87	100.00	60.87	68.93	100.00	68.93
2,4,6-Tribromophenol			117.13	200.00	58.57	131.52	200.00	65.76	127.57	200.00	63.79	3.22	200.00	1.61 *
Terphenyl-d14			66.70	100.00	66.70	75.96	100.00	75.96	75.12	100.00	75.12	79.84	100.00	79.84

*PQL is defined as the low point on the calibratrion curve.

Certified by: Micheal S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY
QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: Hercules/Eco-Systems
Sample ID: HER-GP10-GW
File #: BT88746

	Date		Analyst
Collected:	08/13/03	14:45	Client
Extracted:	08/15/03	9:45	SCF
Analyzed:	09/12/03		SCF

Sample Type: Water
Extraction Method: SW846 3510C
Analysis Method: Modified SW846

COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			MATRIX SPIKE			MATRIX SPIKE DUPLICATE		
		Detected Amount ug/L (ppb)	Spike		Detected Amount ug/L (ppb)	Spike		Detected Amount ug/mL (ppm)	Spike		Detected Amount ug/mL (ppm)	Spike	
			Amount ug/L	% Recovery		Amount ug/L	% Recovery		Amount ug/mL	% Recovery		Amount ug/mL	% Recovery
Dioxenethion	0.400	ND			ND			4.55	5.00	93.4	4.85	5.00	99.8
Dioxathion (cis)	0.400	ND			ND			5.30	5.00	87.0	4.43	5.00	93.0
Dioxathion (trans)	0.400	ND			ND			4.81	5.00	71.4	4.77	5.00	84.0
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.51	5.00	90.2	2.99	5.00	59.8	4.55	5.00	91.0	4.18	5.00	83.6

*PQL's are the lowest point on the calibration curve

Certified by: Michael S. Bonner, Ph.D
BONNER ANALYTICAL TESTING COMPANY

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QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP11-GW**
File #: BT88748

	Date	Time	Analyst
Collected:	08/13/03	14:28	Client
Received:	08/13/03	16:35	JR
Analyzed:	08/24/03	13:13	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007444

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE (BT88702Z) Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP (BT88703Z) Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
1,1-Dichloroethene	75-35-4	5.00	ND			ND			59.7	250	119	59.3	250	119
Benzene	71-43-2	1.00	6.99			ND			56.1	250	112	53.3	250	107
Trichloroethene	79-01-6	1.00	ND			ND			59.2	250	118	56.6	250	113
Toluene	108-88-3	1.00	ND			ND			39.8	250	79.6	56.5	250	113
Chlorobenzene	108-90-7	1.00	ND			ND			40.5	250	80.9	44.7	250	89.3
Bromobenzene	108-86-1	1.00	ND			ND			ND			ND		
Bromochloromethane	74-97-5	1.00	ND			ND			ND			ND		
Bromodichloromethane	75-27-4	1.00	ND			ND			ND			ND		
Bromoform	75-25-2	1.00	ND			ND			ND			ND		
Bromomethane	74-83-9	5.00	ND			ND			ND			ND		
n-Butylbenzene	104-51-8	1.00	ND			ND			ND			ND		
sec-Butylbenzene	135-98-8	1.00	ND			ND			ND			ND		
tert-Butylbenzene	98-06-6	1.00	ND			ND			ND			ND		
Carbon Tetrachloride	56-23-5	1.00	ND			ND			ND			ND		
Chloroethane	75-00-3	5.00	ND			ND			ND			ND		
Chloroform	66-67-3	1.00	ND			ND			ND			ND		
Chloromethane	74-87-3	1.00	ND			ND			ND			ND		
2-Chlorotoluene	95-49-8	1.00	ND			ND			ND			ND		
4-Chlorotoluene	106-43-4	1.00	ND			ND			ND			ND		
Dibromochloromethane	124-48-1	1.00	ND			ND			ND			ND		
1,2-Dibromo-3-chloropropane	96-12-8	1.00	ND			ND			ND			ND		
1,2-Dibromoethane	106-93-4	1.00	ND			ND			ND			ND		
Dibromomethane	74-95-3	1.00	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	1.00	ND			ND			ND			ND		
1,3-Dichlorobenzene	541-73-1	1.00	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	1.00	ND			ND			ND			ND		
Dichlorodifluoromethane	75-71-8	1.00	ND			ND			ND			ND		
1,1-Dichloroethane	75-34-3	5.00	ND			ND			ND			ND		
1,2-Dichloroethane	107-06-2	1.00	ND			ND			ND			ND		
cis-1,2-Dichloroethene	156-59-2	1.00	ND			ND			ND			ND		
trans-1,2-Dichloroethene	156-60-5	5.00	ND			ND			ND			ND		
1,2-Dichloropropane	78-87-5	1.00	ND			ND			ND			ND		
1,3-Dichloropropane	142-28-9	1.00	ND			ND			ND			ND		
2,2-Dichloropropane	594-20-7	5.00	ND			ND			ND			ND		
1,1-Dichloropropene	563-58-6	1.00	ND			ND			ND			ND		
c-1,3-Dichloropropene	10061-01-5	1.00	ND			ND			ND			ND		
t-1,3-Dichloropropene	10061-02-6	1.00	ND			ND			ND			ND		
Ethyl benzene	100-41-4	1.00	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	1.00	ND			ND			ND			ND		
Isopropylbenzene	98-82-8	1.00	ND			ND			ND			ND		
p-Isopropyltoluene	99-87-6	1.00	ND			ND			5.64			5.35		
Methylene chloride	75-09-2	5.00	ND			ND			ND			ND		
Naphthalene	91-20-3	5.00	ND			ND			78.6			77.3		
n-Propylbenzene	103-65-1	1.00	ND			ND			ND			ND		

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
VOLATILE ORGANICS - GC/MS ANALYSIS DATA

Client: Eco Systems Inc.
Location: **HER-GP11-GW**
File #: BT88748

	Date	Time	Analyst
Collected:	08/13/03	14:28	Client
Received:	08/13/03	16:35	JR
Analysis:	08/24/03	13:13	MGJ

Sample Type: Water
Analysis Method: 8260B
Project Number: 007444

Compound Name	CAS Number	PQL ug/L (ppb)	SAMPLE Detected Amount ug/L (ppb)	SAMPLE Amount ug	SAMPLE % Recovery	BLANK Detected Amount ug/L (ppb)	BLANK Amount ug	BLANK % Recovery	MATRIX SPIKE Detected Amount ug/L (ppb)	MATRIX SPIKE Spike Amount ng	MATRIX SPIKE Spike % Recovery	MATRIX SPIKE DUP Detected Amount ug/L (ppb)	MATRIX SPIKE DUP Spike Amount ng	MATRIX SPIKE DUP Spike % Recovery
Styrene	100-42-5	1.00	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	630-20-6	5.00	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	79-34-5	1.00	ND			ND			ND			ND		
Tetrachloroethene	127-18-4	1.00	ND			ND			ND			ND		
1,2,3-Trichlorobenzene	87-61-6	5.00	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	5.00	ND			ND			ND			ND		
1,1,1-Trichloroethane	71-55-6	1.00	ND			ND			ND			ND		
1,1,2-Trichloroethane	79-00-5	1.00	ND			ND			ND			ND		
Trichlorofluoromethane	75-69-4	1.00	ND			ND			ND			ND		
1,2,3-Trichloropropane	96-18-4	5.00	ND			ND			ND			ND		
1,2,4-Trimethylbenzene	95-63-6	1.00	ND			ND			ND			ND		
1,3,5-Trimethylbenzene	108-67-8	1.00	ND			ND			ND			ND		
Vinyl chloride	75-01-4	1.00	ND			ND			ND			ND		
Xylenes (total)	1330-20-7	1.00	ND			ND			ND			ND		
Surrogate Compounds			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
1,2-Dichloroethane-d4	17060-07-0		47.6	250	95.2	54.0	250	108	52.2	250	104	53.0	250	106
Dibromofluoromethane	1868-53-7		47.2	250	94.3	50.9	250	102	54.0	250	108	57.9	250	116
Toluene-d8	2037-26-5		52.1	250	104	50.9	250	102	51.7	250	103	49.5	250	98.9
4-Bromofluorobenzene	460-00-4		56.6	250	113	55.8	250	112	50.3	250	101	48.6	250	97.2

PQL is set as low point on the curve

Certified by:
Michael S. Bonner, Ph. D.
Bonner Analytical Testing Company

BONNER ANALYTICAL TESTING COMPANY

QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA
BASE NEUTRALS AND ACIDS - GC/MS ANALYSIS DATA

Client: Hercules
Location: HER-GP11-GW
File #: BT88794

	Date	Time	Analyst
Collected:	8/14/03	1145	Client
Extracted:	8/18/03	800	WTD
Analyzed:	8/22/03	2130	WTD

Sample Type: Water
Extraction Method: 3510C
Analysis Method: 8270C

Compound Name	CAS Number	PQL* ug/L (ppb)	BT88794			BLANK			Matrix Spike(BT88747)			Matrix Spike Duplicate		
			Detected Amount ug/L (ppb)	Spike Amount ug	Spike % Recovery	Detected Amount ug/L (ppb)	Spike Amount ug	Spike % Recovery	Detected Amount ng/ul in the extract	Spike Amount ug	Spike % Recovery	Detected Amount ng/ul in the extract	Spike Amount ug	Spike % Recovery
Phenol	108-95-2	10.0	ND			ND			38.93	150.00	25.95	6.68	150.00	4.45
Bis(2-chloroethyl)ether	111-44-4	10.0	ND			ND			ND			ND		
2-Chlorophenol	95-57-8	10.0	ND			ND			82.81	150.00	55.21	82.81	150.00	55.21
1,3-Dichlorobenzene	541-73-1	10.0	ND			ND			ND			ND		
1,4-Dichlorobenzene	106-46-7	10.0	ND			ND			37.60	100.00	37.60	46.80	100.00	46.80
Benzyl Alcohol	100-51-6	10.0	ND			ND			ND			ND		
1,2-Dichlorobenzene	95-50-1	10.0	ND			ND			ND			ND		
2-Methylphenol	95-48-7	10.0	ND			ND			ND			ND		
Bis(2-chloroisopropyl)ether	108-60-1	10.0	ND			ND			ND			ND		
4-Methylphenol	106-44-5	10.0	ND			ND			ND			ND		
Hexachloroethane	67-72-1	10.0	ND			ND			ND			ND		
N-Nitroso-di-N-propylamine	621-64-7	10.0	ND			ND			61.42	100.00	61.42	73.39	100.00	73.39
Nitrobenzene	98-95-3	10.0	ND			ND			ND			ND		
Isophorone	78-59-1	10.0	ND			ND			ND			ND		
2,4-Dimethylphenol	105-67-9	10.0	ND			ND			ND			ND		
2-Nitrophenol	88-75-5	10.0	ND			ND			ND			ND		
Benzoic Acid	65-85-0	10.0	ND			ND			ND			ND		
Bis(2-chloroethoxy)methane	111-91-1	10.0	ND			ND			ND			ND		
2,4-Dichlorophenol	120-83-2	10.0	ND			ND			ND			ND		
1,2,4-Trichlorobenzene	120-82-1	10.0	ND			ND			40.94	100.00	40.94	50.75	100.00	50.75
Naphthalene	91-20-3	10.0	ND			ND			ND			ND		
4-Chloroaniline	106-47-8	10.0	ND			ND			ND			ND		
Hexachlorobutadiene	87-68-3	10.0	ND			ND			ND			ND		
4-Chloro-3-methylphenol	59-50-7	10.0	ND			ND			105.32	150.00	70.21	57.22	150.00	38.15
2-Methylnaphthalene	91-57-6	10.0	ND			ND			ND			ND		
Hexachlorocyclopentadiene	77-47-4	10.0	ND			ND			ND			ND		
2,4,6-Trichlorophenol	88-06-2	10.0	ND			ND			ND			ND		
2,4,5-Trichlorophenol	95-95-4	10.0	ND			ND			ND			ND		
2-Chloronaphthalene	91-58-7	10.0	ND			ND			ND			ND		
2-Nitroaniline	88-74-4	10.0	ND			ND			ND			ND		
Dimethylphthalate	131-11-3	10.0	ND			ND			ND			ND		
Acenaphthylene	208-96-8	10.0	ND			ND			ND			ND		
2,6-Dinitrotoluene	606-20-2	10.0	ND			ND			ND	–		ND		
3-Nitroaniline	99-09-2	10.0	ND			ND			ND			ND		
Acenaphthene	83-32-9	10.0	ND			ND			59.25	100.00	59.25	64.64	100.00	64.64
2,4-Dinitrophenol	51-28-5	10.0	ND			ND			ND			ND		
4-Nitrophenol	100-02-7	10.0	ND			ND			30.77	150.00	20.51	18.29	150.00	12.19
Dibenzofuran	132-64-9	10.0	ND			ND			ND			ND		
2,4-Dinitrotoluene	121-14-2	10.0	ND			ND			73.18	100.00	73.18	76.06	100.00	76.06
Diethylphthalate	84-66-2	10.0	ND			ND			ND			ND		
Fluorene	86-73-7	10.0	ND			ND			ND			ND		
4-Chlorophenyl-phenylether	7005-72-3	10.0	ND			ND			ND			ND		
4-Nitroaniline	100-01-6	10.0	ND			ND			ND			ND		
4,6-Dinitro-2-methylphenol	534-52-1	10.0	ND			ND			ND			ND		