ANSON
ENVIRONMENTAL

Revised
Voluntary Cleanup Interim Remedial Measure
Work Plan

for

Gibson and Cushman Dredging

38 Homan Avenue

Bay Shore, New York

VCP Site # V00352-1

September 26, 2002

Revised May 27, 2003

Revised January 17, 2005

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Volume 1 of 2

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Project #: 99108

Voluntary Cleanup Agreement Work Plan
38 Homan Avenue, Bay Shore

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Executive Summary

The property owner, Gibson and Cushman Dredging Co. (GCD) has revised the May 27, 2003, Voluntary Cleanup Interim Remedial Measure Work Plan for the property located at 38 Homan Avenue, Bay Shore, New York and now proposes to excavate soils not located under permanent structures for both the northern and southern parcels of the property. It is possible that contaminated soils might remain after the proposed excavation activity is completed because of the physical constraints imposed by on-site buildings, the bulkhead separating the property from Pentaquit Creek to the west and to the south, and the shallow water table on-site. The property owner, GCD, recognizes this situation and the fact that institutional controls such as an environmental easement or soils management plan may be imposed to protect users of the property from exposure to the remaining contamination. No soils environmental easement or management plan is proposed herein.

Previous soil sampling by Roux Associates and Anson Environmental Ltd. has identified soils contaminated with RCRA metals,

The dredging company property contains several large mechanical units and the support equipment for those units. To minimize the impact on the daily operation of dredging company, excavation at the site will be performed in numerous small contiguous areas until all of the property not covered by buildings and bulkheads is excavated and sampled. Before the excavation in any designated area of the property is started mechanical units and support equipment will be cleared of the area. It is expected that each area to be excavated will be approximately 900 square feet. The excavation at each area will be advanced to 2-feet below grade surface (bgs). When the excavation is open to that depth end-point samples will be collected in accordance with New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (Draft DER-10 dated 12/25/02). Excavated soils will be stockpiled on plastic on-site and will be sampled and analyzed for later disposal off-site.

After the endpoint samples are collected they will be submitted to a New York State Department of Health (NYSDOH) approved laboratory and analyzed for concentrations of volatile organic compounds (VOCs), RCRA metals, plus copper and zinc, and polychlorinated biphenyls (PCBs) Category B deliverables. If laboratory analytical data indicate that the endpoint soil samples meet the State recommended soil cleanup objectives (RSCOs) for VOCs, metals and PCBs, excavation in that area will be stopped and the excavated area will be backfilled with crushed stone. On the other hand, if the endpoint samples do not meet the RSCOs, additional soils will be excavated and deeper endpoints samples collected until the RSCOs are met.

The horizontal limit of the excavation will be determined by the location of the bulkhead on the western and southern sides of the property and the property lines on the eastern and northern sides.

No dewatering is planned during the excavation process.

The laboratory data will be validated by L.A.B. Validation Corp., East Northport, New York.

1.0 Introduction/Purpose of Work Plan

Anson Environmental Ltd. (AEL) has performed limited Phase I and Phase II Environmental Site Investigations at 38 Homan Avenue in Bay Shore, N.Y. These investigations were conducted on behalf of the property owner, Gibson and Cushman Dredging Co., LLC (GCD). The Phase II investigation identified two areas of concern with soils that have been impacted by past operations at the site. One of the areas of concern is located at the north parcel of the property in the area surrounding a former underground storage tank. The other area of concern is located at the south parcel of the property in the vicinity of the former welding operations. The contaminants of concern in the north parcel include petroleum hydrocarbons including 1,2,4-trimethylbenzene and metals including zinc. The contaminants of concern identified in the south parcel are metals including arsenic, lead and zinc.

On the northern and southern parcels, soils will be excavated in the areas not occupied by permanent structures and disposed of off-site. The excavated soils will be replaced with crushed stone.

This Work Plan addresses on-site soil remediation at the site. Activities conducted pursuant to the Work Plan may be conducted under NYSDEC oversight. The implementation of this Work Plan is pursuant to a Voluntary Cleanup Agreement (VCA) between GCD and the NYSDEC. The objective of this Work Plan is to remediate on-site contaminated surface soils that will be excavated and disposed of off-site.

2.0 Summary of Existing Conditions and Background Information

2.1 Site Location, Ownership and Access

The NYSDEC-designated Voluntary Cleanup Site, Gibson and Cushman Dredging Co., LLC, is located at 38 Homan Avenue, Bay Shore, Suffolk County, New York. The site is approximately 1.5 acres in size and is currently owned by GCD. The site and its proximate environs are shown on Figure 1.

2.2 Site Description

The property is roughly rectangular in shape, is approximately 160 feet by 450 feet in size, and is divided into two parcels identified in this report as the north and south parcels, respectively. There are several buildings and other structures on the property.

The north parcel, comprising approximately 28,800 square feet, is occupied by a two-story building which houses the company offices, and five portable storage containers (sea containers) at the southwestern section of the parcel and a workshop area. The east side of the parcel contains storage racks.

Two maintenance shop buildings occupy the southern parcel, comprising approximately 38,400 square feet. The west and east sections of the parcel are occupied by storage racks and the steel welding area is located at the northwestern section.

The facility has been used to repair and store dredging equipment and boats used during dredging operations for approximately 80 years. The current property owners, GCD, have owned the property for approximately 75 years.

2.3 Background Information

2.3.1 Hydrogeology

The site is located near the southern perimeter of the Town of Islip. The groundwater reservoir underlying the Township of Bay Shore, Town of Islip is composed of unconsolidated local deposits of Holocene age, glacial deposits of Pleistocene Age, and coastal-plain deposits of continental and marine origin of the Late Cretaceous Age.

From oldest (deepest) to youngest (shallowest) these sediments have been identified and divided into a series of hydrogeologic units: the Lloyd Aquifer; the Raritan clay confining unit; the Magothy Aquifer, and the Upper Glacial Aquifer.

The Upper Glacial Aquifer consists of late Pleistocene and Holocene Age poorly sorted sand, gravel, silt, and clay deposits. The upper surface of the upper glacial deposits comprise present day land surface.

The southernmost part of the Town of Islip is underlain by highly permeable glacial outwash consisting of stratified sand and gravel and occasional thin clay beds. The deposits forming the Upper Glacial Aquifer range in thickness from 6 feet to more than 350 feet. The extreme variation in thickness results from the highly eroded surface upon which these materials were deposited and the irregularity of their upper surface that is the present land surface. The outwash deposits range in thickness from 14 feet to about 165 feet.

The groundwater under the site ranges from six inches below the ground surface on the western side of the property to twenty-four inches below grade on the eastern side.

2.3.2 Public Water Supply Wells

The nearest public water supply wells are located north of the site. The Suffolk County Water Authority has forwarded water quality data for the four wells near the site (Appendix 1). Two of the wells are located on Fifth Avenue and the other two are located on Thomas Avenue.

2.3.3 Previous Investigations

In 1997, Roux Associates conducted a limited Environmental Phase II ESI of the property and in 1999 AEL conducted additional Phase II ESI activities, which included soil sampling. These investigations revealed that soils in the northern parcel have a moderate amount of non-hazardous petroleum hydrocarbon contamination, and soils located in the southern parcel contain metals contamination. Copies of previous environmental investigations with respect to the

subject site are presented in the Appendix 2. Laboratory reports for samples collected in November 1999 are contained in Appendix 3.

2.3.4 July 27, 2001 Soil Sampling

On July 27, 2001, soil samples were collected from sampling sites adjacent to locations previously sampled on November 12, 1999. The purpose of this sampling event was twofold: to determine the amount of change in contaminant concentrations of metals and petroleum hydrocarbons since the 1999 sampling; and to determine the vertical extent of contamination at each sampling location.

Thirteen soil sampling locations were sampled on the two parcels; consisting of eight of the sampling locations on the northern parcel and five sampling locations on the southern parcel (Figure 2). Each of the samples collected from the northern parcel (sample IDs 27S1, 27S2, 27S3, 27S4, 27S5, 27S6, 27S7, 27S8 and 27S9) were analyzed for petroleum hydrocarbons via EPA Method 8021 and for totals of arsenic, lead, and zinc using SW-846 Method 6010. At each sampling location, samples were collected from varying depths including a shallow depth of 0-6", a medium depth of 6"-12" and a deep depth of 12"-18" below ground surface (bgs).

Each sample collected from the southern parcel (sample IDs 27MSB1, 27MSB3, 27MSB4, 27MSB6, and 27MSB7) were analyzed for totals of arsenic, lead and zinc via SW-846 Method 6010. At each sampling location, samples were collected from varying depths including a shallow depth of 0-6", a medium depth of 6"-12" and a deep depth of 12"-18" below ground surface. Only one sample collected from the location identified as 27 MSB4 at the deep depth (12"-18" bgs), was analyzed for petroleum hydrocarbons via EPA Method 8021 in addition to the aforementioned total metals. This sample was analyzed for petroleum hydrocarbons because of visual and olfactory evidence of petroleum contamination noted during field activities. The location of sample 27 MSB4 was in the vicinity of the former drum storage area depicted on Figure 2.

The laboratory analytical results were screened per NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives for Fuel Oil Contaminated Soil (STARS 94 7/12/01).

2.3.4.1 Laboratory Data for the North Parcel

The soil samples collected from the north parcel were analyzed for petroleum hydrocarbons via EPA method 8021 and for totals of lead, arsenic, and zinc. The laboratory results are summarized in Tables 2.3, Table 2.3.1, and Table 2.3.2

Table 2.3 Summary of Petroleum Hydrocarbons

Sample ID @ Shallow, Medium and Deep Depths	Petroleum Hydrocarbons (ug/kg)
27S1 (0-6 in., 6-12 in. and 12-18 in)	BLD
27S2 (0-6 in., 6-12 in. and 12-18 in)	BLD
27S3 (0-6 in., 6-12 in. and 12-18 in)	BLD
27S4 (0-6 in., 6-12 in. and 12-18 in)	BLD
27S5 See Table 2.3.1	
27S6 (0-6 in., 6-12 in. and 12-18 in)	BLD
27S8 (0-6 in., 6-12 in. and 12-18 in)	BLD
27S9 (0-6 in., 6-12 in. and 12-18 in)	BLD

BLD: Below Laboratory Detection limits of 6.6 mg/kg

Table 2.3.1 Petroleum Hydrocarbons Detected above the Laboratory Detection Limits at 27S5

Pet. Hydrocarbons **Sample ID 27S5**	**Shallow** **(0-6 in.)** **(ug/kg)**	**Medium** **(6-12 in)** **(ug/kg)**	**Deep** **(12-18in.)** **(ug/kg)**	**NYSDEC TAGM Rec.soil Cleanup Objective** **(ug/kg)**
n-butylbenzene	703	4,641	5,586	10,000
Sec-butylbenzene	548	4,744	7,995	10,000
tert-butlybenzene	155	1,031	347	1,300
isopropylbenzene	296	2,169	**3,208**	2,300
p-isopropyltoluene	1,122	7,246	6,010	10,000
n-propylbenzene	364	**3,980**	**6,811**	3,700
Ethylbenzene	305	1,311	680	5,500
Naphthalene	3,088	**13,916**	<100	13,000
1,2,4 trimethylbenzene	**15,617**	**133,395**	**161,593**	3,300
1,3,5 trimethylbenzene	**2,468**	**8,560**	**297**	200
p&m xylenes	735	**1,209**	<200	1,200
o-xylene	203	184	<100	1,200

Bold Type: Sample result exceeds NYSDEC established TAGM standard

Table 2.3.2 Summary of Totals for Arsenic, Lead and Zinc Laboratory Results

Metals (mg/kg) Sample ID	Arsenic (mg/kg)	Lead (mg/kg)	Zinc (mg/kg)
NYSDEC Metal TAGM's Rec.Soil Cleanup Objectives	**7.5**	**200-500**	**20**
27S1 (0-6 in.)	BLD	**789**	**717**
(6-12 in.)	BLD	393	**281**
(12-18 in.)	BLD	**627**	**491**
27S2 (0-6 in.)	BLD	**506**	**235**
(6-12 in.)	BLD	408	**267**
(12-18 in.)	BLD	84.9	**50.4**
27S3 (0-6 in.)	BLD	143	**67.8**
(6-12 in.)	BLD	85.9	**46.1**
(12-18 in.)	BLD	19.1	10.2
27S4 (0-6 in.)	BLD	43.0	4.02
(6-12 in.)	BLD	145	**1,083**
(12-18 in.)	BLD	88.4	10.9
27S5 (0-6 in.)	BLD	400	**515**
(6-12 in.)	BLD	365	**423**
(12-18 in.)	BLD	20.2	**59.9**
27S6 (0-6 in.)	BLD	241	**576**
(6-12 in.)	BLD	129	**338**
(12-18 in.)	BLD	137	**360**
27S8 (0-6 in.)	BLD	362	**180**
(6-12 in.)	BLD	245	**96.4**
(12-18 in.)	BLD	250	**99.0**
27S9 (0-6 in.)	BLD	294	**207**
(6-12 in.)	BLD	**627**	**248**
(12-18 in.)	BLD	209	**134**

BLD: Below Laboratory Detection limits of 6.6 mg/kg
Bold Type: Sample result exceeds NYSDEC established TAGM standard

Summary of Laboratory Results at Northern Parcel

The laboratory results indicate that on the northern parcel, elevated concentrations of petroleum hydrocarbons were detected at one sampling location identified as 27S5 at all three depths sampled at this particular location. These samples contained elevated levels of several petroleum hydrocarbons as indicated in Table 2.3.1 that exceed the NYSDEC established TAGMs. The soils collected from this location were observed to be significantly discolored and a petroleum type odor was noted during field activities.

None of the samples collected contained concentrations of arsenic that exceeded the laboratory detection limit of 6.6 mg/kg; however, nearly all of the samples collected contained concentrations of zinc that exceeded the established NYSDEC TAGM of 20 mg/kg. Soil Samples collected from locations identified as 27S1, 27S2, and 27S9 exceeded the established NYSDEC TAGM for lead. The laboratory data sheets are contained in Appendix 4.

Laboratory Data for the Southern Parcel

A total of five sampling locations were sampled at the southern parcel (sample IDs 27MSB1, 27MSB3, 27MSB4, 27MSB6, and 27MSB7) were analyzed for totals of arsenic, lead and zinc via SW-846 Method 6010 (Figure 4). At each sampling location, samples were collected from varying depths including a shallow depth, a medium depth, and a deep depth. Only one sample collected from the location identified as 27 MSB4 at the deep depth (12"-18" bgs), was analyzed for petroleum hydrocarbons via EPA Method 8021 in addition to the aforementioned total metals. Table 2.3.3 summarizes the laboratory analytical results for metals. In addition to discreet soil sampling, one composite sample was collected from the southern parcel for disposal purposes. The composite sample was analyzed for total arsenic, lead and zinc via SW-846 Method 6010.

Table 2.3.3 Summary of Metals from Samples Collected at the Southern Parcel.

Metals (mg/kg) Sample ID	Arsenic (mg/kg)	Lead (mg/kg)	Zinc (mg/kg)
NYSDEC Metal TAGM's	**7.5**	**200-500**	**20**
27MSB1 (0-6 in.)	**14.3**	106	**335**
(6-12 in.)	BLD	**802**	**985**
(12-18 in.)	BLD	394	**309**
27MSB3 (0-6 in.)	BLD	BDL	BDL
(6-12 in.)	BLD	BDL	BDL
(12-18 in.)	**19.3**	21.4	**76.8**
27MSB4 (0-6 in.)	**13.8**	22.1	**48.9**
(6-12 in.)	**14.8**	31.3	**68.3**
(12-18 in.)	7.13	169	**540**
27MSB6 (0-6 in.)	BLD	290	**265**
(6-12 in.)	BLD	346	**135**
(12-18 in.)	BLD	34.2	**42.6**
27MSB7 (0-6 in.)	**8.68**	51.1	**173**
(6-12 in.)	**10.2**	301	**522**
(12-18 in.)	BLD	472	**857**

BLD: Below Laboratory Detection limits of 6.6 mg/kg
Bold Type: Sample result exceeds NYSDEC established TAGM standard

Summary of Laboratory Results at Southern Parcel
The laboratory results indicate that on the southern parcel, no elevated concentrations of petroleum hydrocarbons were detected at the one sampling location identified as 27MSB4 12-18.

At least one soil sample from each sampling location contained concentrations of arsenic that exceeded the NYSDEC TAGM of 7.5 mg/kg with the exception of the samples collected from the 27MSB6 sampling location which were all below laboratory detection limits. The

concentration of lead in the sample collected from 27MSB1 at the medium depth (6"-12") was 802 mg/kg, which exceeds the established NYSDEC TAGM for lead of 500 mg/kg. The remaining samples were below the NYSDEC TAGM for lead. At least one soil sample from each sampling location contained concentrations of zinc that exceeded the NYSDEC TAGM of 20 mg/kg. The actual laboratory data sheets are contained in Appendix 4.

The composite sample contained a concentration of arsenic that was below the laboratory detection limit. The concentration of lead (261 mg/kg) was below the established NYSDEC TAGM of 500 mg/kg and the concentration of zinc (421 mg/kg) exceeded the NYSDEC TAGM of 20 mg/kg.

3.0 Scope of the Remedial Measures

3.1 Approach and Objectives

The objective of the Work Plan is to outline the remediation project at the site that includes excavation of impacted soils located in sections of the northern and southern parcels of the site as described in Section 2.0 of this report.

The estimated total area of the south portion of the site is 38,400 square feet. The estimated area to be excavated in the southern portion is 14,572 square feet. The total volume of this excavated area is 1,079 cubic yards or approximately 1400 tons.

The estimated total area of the north portion of the site is 28,800 square feet. The estimated area to be excavated in the north portion is 11,815 square feet. The total volume of this excavated area is 875 cubic yards or approximately 1140 tons.

As each two-feet thick layer of soil in a designated area is excavated it will be analyzed for proper disposal off-site. The excavations will be backfilled with crushed stone.

3.2 Laboratory Analysis

Following the excavation activity in each designated area endpoint samples will be collected in accordance with DER-10, i.e., one sample from the top of each sidewall for every 30 linear feet of sidewall and one sample from the excavation bottom for every 900 square feet of bottom area.

The soil samples from each endpoint sampling location will be submitted to a NYSDOH approved laboratory and analyzed for concentrations of volatile organic compounds (VOCs), RCRA metals, plus copper and zinc, and polychlorinated biphenyls (PCBs) Category B deliverables. If laboratory analytical data indicate that the endpoint soil samples meet the State recommended soil cleanup objectives (RSCOs) for VOCs, metals and PCBs, excavation in that area will be stopped and the excavated area will be backfilled with crushed stone. On the other hand, if the endpoint samples do not meet the RSCOs, additional soils will be excavated and deeper endpoints samples collected until the RSCOs are met.

All soil samples and quality control blanks will be stored in an ice-filled cooler and delivered to laboratory for analysis.

3.3 Deliverables

The following reports will be prepared using the data gathered during the above described soil sampling events.

3.3.1 Site History Report

The historical uses of the site will be described identifying building modifications, if any, and site changes. The operations on-site will be described. Previous environmental investigations will be summarized. The current status of the facility's operations will be included. This report will be prepared as part of the Final Report.

3.3.2 Remedial Measure Report

This report will be delivered on completion of the activities described in this Work Plan.

3.4 On Site Remedial Measures

3.4.1 Excavation of Contaminated Soils

Based on the August 2001 soil sampling and recent direction from NYSDEC the entire northern portion of the site not occupied by permanent structures will be excavated to 2-feet bgs (Figure 3). The total area of the northern parcel is estimated to be 28,800 square feet and approximately 11,800 square feet will be excavated to 2-feet bgs. The northern portion of the site will be excavated in a series of smaller contiguous areas that are approximately 900 square feet. As each area is excavated it will be sampled in accordance with DER-10. Based on the laboratory data for the collected endpoint samples, the excavation will be backfilled with crushed stone or additional soils will be removed from the area until endpoint samples meet RSCOs.

Given the site's close proximity to Pentaquit Creek, the vertical extent of the excavation will extend to the depth permitted by site conditions as the bulkhead to the Creek is approached. The vertical extent of the excavation will be to a depth where laboratory analytical data indicate that the remaining soils meet the RSCOs.

The excavated soils will be stockpiled on plastic on-site and sampled for later proper disposal off-site. The collected samples of the excavated soils will be delivered to the laboratory for appropriate disposal analysis.

The total area of the southern portion of the site is estimated to be 38,400 square feet and approximately 14,600 square feet will be excavated to 2-feet bgs. Excavation activity at the southern portion of the site will follow the same method as described for the north portion.

To preserve the integrity of each building foundation, soil excavations will be performed no closer than 5-feet from the exterior walls of the buildings.

The bulkheads on the subject property are anchored to the soils using numerous large timbers (a.k.a. Deadman) that are installed parallel to the bulkhead. These timber anchors are connected to the bulkhead during construction using long metal rods and are installed below grade and approximately 12-feet from the vertical bulkhead timbers. To preserve the integrity of the timber anchors and the bulkhead, soil excavations will be performed no closer than 15-feet from the bulkhead.

3.4.2 Work Practice Modifications

Site operations at the site have been modified to minimize the risk of introducing metals and petroleum hydrocarbons to the environment at the site. These modifications include: (1) the restriction of welding to specific areas using welding rods that contain small quantities of arsenic, lead and zinc; (2) the use of new formulas of anti-fouling paints (that prevent the growth of marine life on the bottom of boats and barges) that do not contain metals such as arsenic, lead and zinc; and (3) regular cleanup of these specific work areas to insure that metals re-contamination is precluded.

3.4.3 Progress Reports

Progress reports will be prepared monthly until the completion of the remediation.

4.0 Project Management

4.1 Project Schedule and Key Milestones

The following key milestones have been established to monitor the progress of the work plan. Specific deadlines for completion of tasks and subtasks are established throughout the project schedule in a manner to ensure timely completion of work. The following list of milestones is proposed for this project:

Milestone	Description	Expected Date
1	Work Plan Submission	July 28, 2005
2	Work Plan Approval	September 1, 2005
3	Fact Sheet CirculationCompleted	October 7, 2005
4	Commence Excavation Activity	October 10, 2005
5	Complete Excavation Activity	April 10, 2006
6	Closure Report	May 10, 2006

Note: The schedule is contingent on the expeditious permit approval by Town of Islip.

4.2 Project Management, Organization and Key Technical Personnel

AEL will be the prime consultant responsible for the IRM. Subcontractors will provide assistance in performing tasks identified in the work plan. The key AEL technical personnel will be:

Project Manager	John M. Tegins
QA/QC Officer	Fritzi Gros-Daillon
Professional Engineer	Eugene G. Kempey, P.E.
Land Surveyor	William Welsh, P.E.,L.S.

Fritzi Gros-Daillon will act as the Quality Assurance Manager and will be responsible for ensuring that the data collected is precise and valid. The QA Manager will make unannounced field visits to observe data collection procedures. The 8-hour Refresher Training Certificate will be included with the on-site Health and Safety Plan (HASP) to demonstrate compliance with OSHA 29CFR1910.120.

The New York State licensed professional engineer on this project will be Eugene G. Kempey, P.E., and License Number 68364.

The resumes of the key personnel are located in the Appendix 5.

5.0 Field Operations and Investigation Plan

5.1 Site Management Plan

5.1.1 Site Access and Security

Primary access to the property is via Homan Avenue, Bay Shore. Access authorization for the NYSDEC will be granted following proper notification of AEL and GCD.

5.1.2 Organization and Responsibilities

For the purpose of undertaking technical aspects of the Interim Remedial Measure, the following firms will assist in project implementation. Prior to commencing fieldwork, the qualifications of the subcontractors will be submitted to the NYSDEC for review and approval. These include:

- Anson Environmental Ltd. – AEL will be the environmental consultants with prime responsibility for completion of the remediation.
- Analytical Laboratory- Upstate Laboratories or other approved laboratory
- Excavation Services –Brookside Environmental, Merrick, New York (or other approved subcontractor)
- Laboratory Data Validation –L.A.B. Validation Corp., East Northport, New York.

5.1.3 Utility Mark Out for Subsurface Investigation

After the locations for the excavation have been finalized, the necessary clearances for access, work, and utility mark outs will be obtained. Access and clearances to public property and private property will be obtained by AEL. Once these proposed locations have been cleared for access, a utility mark outs will be conducted.

5.2 Field Activity Plan

The following is a description of the field activities to be conducted at the GCD site. The NYSDEC may choose to collect split soil samples. Detailed descriptions of the sampling procedures are included in the Quality Assurance/Quality Control Plan.

5.3 Air Monitoring During Excavation

During the soil excavation activities, an MIE *personal*DATARAM hand-held instrument (Model PDR 1000AN) manufactured by Monitoring Instruments for the Environment, Inc., Bedford, Massachusetts, will be used to measure the concentration of airborne particulate matter. A hand-held 2020 Photoionization Air Monitor manufactured by PE Photovac, Markham, Ontario will be used to monitor volatile organic compounds. The excavation activities will proceed in

accordance with the New York State Department of Health Generic Community Air Monitoring Plan (Appendix 8).

6.0 Citizens Participation Program

The New York State Department of Environmental Conservation, in coordination with GCD and AEL, will have the prime responsibility for preparation and implementation of a community relations program for the site. Information will be provided to the public that may include written documents, drawings, charts, slides, and/or transparencies. Presentation of this material will be made available to the public through Freedom of Information Law (FOIL) requests.

Thirty days before the work described in this work plan is performed, a Fact Sheet approved by NYSDEC and NYSDOH shall be mauled to property owners within one-quarter mile radius of the site.

7.0 Quality Assurance/Quality Control Plan

It is the objective of this project to ensure that all measurements be made so that the results are representative, precise, accurate, complete and comparable. Procedures to meet this objective in the field are described within this section.

7.1 Sampling and Analytical Procedures and Protocol

A description of the sampling method to be used for the collection of samples is addressed in the following section.

7.2 Field Sampling Quality Assurance

7.2.1 Field QA/QC

Blanks will be used to verify the quality of the field sampling results. A field blank will be used to determine the effectiveness of the decontamination of the sampling devices (i.e. bailers and split spoon samplers). Analyte free water will be poured into the device and then transferred to sample containers before use in sampling. Dedicated disposable polyethylene bailers will be used; however, these equipment blanks will be used to ensure that the manufacturer does not introduce contamination.

7.2.2 Field Records

All information pertinent to field activities will be recorded in bound, waterproof field books. Duplicates of all notes will be prepared and kept in a ringed binder. The binder will be stored in a secure place in the office of AEL. Proper documentation will consist of field personnel maintaining records of work accomplished including the items listed below:

- Date and time of work events
- Weather
- Purpose of work

- Description of methods
- Description of samples
- Number and size of samples
- Description of sampling
- Date and time of collection of sample
- Sample collector's name
- Field observations
- Any field measurements collected with portable instruments

Each sample collected in the field will be labeled using waterproof ink. Each bottle will be labeled with a number or location, parameter to be analyzed, sampling time and date.

Data obtained from borings shall be recorded in the field notebook and shall include the following:

- name, location and job number
- date
- sample location number
- surface elevation (if available)
- sample depth
- method of advancing sampler, penetration and recovery lengths
- type and size of sampler
- PID reading during field screening
- description of soil
- thickness of layer
- depth to water, if applicable
- type of equipment used

7.3 Decontamination of Field Equipment

Proper decontamination protocols will be followed during field activities in order to minimize the possibility of introducing contaminants into non-contaminated areas of the site and to ensure that samples and data collected are representative of the actual conditions.

7.3.1 Equipment Requiring Decontamination

The field equipment and sampling devices that require decontamination include:

1. Sampling Equipment-split spoons, trowels, pumps and hoses, stainless steel bailers, temporary well screen and casing, water level measuring device, etc.
2. Personnel Protective Equipment-respiratory protection and protective clothing.

7.3.2 Decontamination Procedures

The sampling and miscellaneous tools will be decontaminated according to the following procedure:

- non-phosphate detergent and tap water wash
- tap water rinse
- distilled/deionized water rinse
- total air dry

Field decontamination for sampling equipment will consist of steam cleaning and/or manual scrubbing to remove foreign material and steam cleaning inside and out. These items will then be stored in such a manner as to preserve their clean condition.

Field personnel protective equipment decontamination procedures shall consist of the minimum decontamination stations outlined in the Health and Safety Plan prepared for this project. The contractor will prepare a decontamination station whose perimeter is diked to prevent ground contamination from wash waters running out of the area. All drilling equipment shall be decontaminated in this zone.

7.4 Sample Custody

The purpose of sample custody procedures is to document the history of sample containers and samples from the time of preparation of sample containers through sample collection and analysis. To maintain and document sample possession, chain of custody procedures will be followed. A chain-of-custody form contains the signatures of individuals who have possession of the samples after collection and identification in the field.

A sample is in custody if it is in:

1. your actual possession; or,
2. your view, after being in your physical possession; or,
3. your physical possession and then you locked it up or sealed it to prevent tampering; or,
4. a designated secure place restricted to authorized personnel.

Each person involved with the samples will know chain of custody procedures. A discussion of the various stages of sample custody, transfer of custody and laboratory custody is presented below.

7.5 Environmental Sample Chain of Custody

The field sampler initiates the chain of custody procedure in the field and is the first to sign the form upon collection of samples.

The field sampler is personally responsible for the care and custody of the samples until they are transferred and properly dispatched. Sample labels shall be completed for each sample using waterproof ink and packaged to preclude breakage during shipment. Every sample shall be assigned a unique identification number that is entered on the chain of custody form. Samples can be grouped for shipment using a single form.

The record shall be completed in the field so as to indicate: project number, unique sample number, sample location, sampling date and time, person obtaining the sample and method of sample preservation. The paperwork will be done and checked at an on-site location.

7.6 Transfer of Custody

A chain of custody record will accompany all samples. When transferring possession of samples, the individuals relinquishing and receiving will sign, date and note the time of the transfer. This record documents transfer of custody of samples whether from the sampler to another person or mobile laboratory or to a permanent laboratory.

Whenever samples are split with a facility or government agency, a separate chain of custody record will be prepared for those samples and marked to indication with whom the samples were split.

7.7 Laboratory Custody Procedures

The laboratory utilized will follow a minimum standard operating procedure for documenting receipt, tracking and sample preparation. A full explanation of laboratory procedures is included in the laboratory documentation in the appendix. Sample custody is described briefly below:

7.7.1 Sample Custody

1. Shipping or Pickup of Cooler by Client
    a. Cooler packed at lab after contact with client.
    b. Cooler wrapped with evidence tape.
    c. Chain of custody forms filled out by lab personnel.
    d. Client supplied with evidence tape to seal cooler prior to shipment back to laboratory.

2. Delivery of Cooler to Lab
    a. Samplers check for external damage (such as leaking).
    b. Lab signs for cooler from shipper.

3. Cooler Delivery to Sample Custodian
    a. Samplers place cooler in air lock to special process lab.
    b. Sample custodian or assistant removes cooler.

4. Opening of Cooler
    a. Check condition of external seal.
    b. Open cooler.
    c. Remove chain of custody forms, fill out and sign.
    d. Check to see if any samples are broken or damaged
        1. If the samples are broken, note manner of disposal and contact client immediately.

5. Report Sent to Client
    a. Traveler's Way Bill
    b. Final Report
    c. Log-out Sheet

6. Final Steps
    a. Raw data stored on file.

7.7.2 Sample Storage

Samples will be maintained in storage in the GC/MS laboratory in a locked refrigerator prior to sample preparation and analysis. The storage refrigerators will be maintained at 4 degrees Celsius. The samples will be stored no longer than the required holding time before analysis. It is the responsibility of the laboratory to properly dispose of samples beyond the holding period.

7.8 Field Notebook Chain of Custody

Dedicated field notebooks will be used for the duration of the project. These will be numbered and assigned to field personnel. A log of the notebook number, the personnel assigned to the notebook and the date and time signed out and signed in will be the responsibility of the field hydrogeologist. Sufficient number of notebooks will be provided.

All field notes and sample chain of custody forms will also be retained in the binder.

7.9 Calibration Procedures and Frequency

The in-field analytical instruments to be used in the site investigation include:
A Photoionization Air Monitor (PID). The instrument will be calibrated in compliance with manufacturer's recommended schedule.

7.10 Documentation, Data Reduction, Validation and Reporting

7.10.1 Field and Technical Data Documentation

All information pertinent to any field activities will be recorded in bound, field books. Duplicates of all notes will be prepared each night and kept in a ring binder, at the AEL office. Proper documentation will consist of all field personnel maintaining detailed records of all work accomplished including:

1. date and time of work events
2. purpose of work
3. names and address of people relevant to the project
4. description of all methods
5. description of all samples

6. number and size of samples
7. description of sampling point
8. date and time of collection of sample
9. sample collector's name
10. reference to site map and/or photographs
11. field observations
12. any field measurements with portable instruments

7.10.2 Field and Technical Reporting

During the performance of the project, field and technical data will be assembled and will be made available to those individuals who need the data. Data reported will be as follows:

1. data collected by the field technician
2. data will be reviewed by the field manager
3. data will then by reviewed by the project manager

After the data in the field books are checked, the data will be reduced to tabular form and entered into data files. Objective data such as water table measurements will be compiled on a spreadsheet. Subjective data such as boring logs will be included as hard copies.

7.10.3 Field and Technical Data Validation

The two levels upon which the field and technical data will be validated will be:

- Validated at the time of collection
- After data reduction into tables and charts

Inconsistencies will be resolved by reviewing the original data or by discussing the inconsistencies with the field personnel or laboratory performing the analysis.

Where possible, peer review will be used to maximize consistency among field personnel.

7.11 Laboratory Data

7.11.1 Laboratory Data Documentation

A complete description of the Upstate Laboratories standard operating procedures is presented in the Appendix 6.

7.11.2 Laboratory Data Reporting

Applicable data presentation and all laboratory reports will conform to full reporting standards including:

1. Laboratory data will be reviewed and approved by laboratory manager.
2. Data presentation will include:
   Sample identification numbers used by laboratory,

Chemical parameters analyzed, report values, and units of measurement,
Detection limits,
Data for chemical parameters,
Results of QA sample analysis, and
Footnotes, if required.

7.11.3 Laboratory Data Reduction

The laboratory data report must be in the NYSDEC Analytical Services Protocol (ASP) Category B deliverable package format. This level of reporting provides the necessary documentation to evaluate the usability of the data and the validity of the analytical reporting limits.

7.11.4 Laboratory Data Validation

The laboratory analytical data will be reviewed to determine if it meets the project specific criteria for data quality and use. The data will be reviewed by L.A.B. Validation Corp. of East Northport, New York and a full data review of the Category B deliverable package will be performed. Upon completion of that review, the data usability package will be submitted, along with any comments, to the NYSDEC's Division of Quality Assurance Unit.

Data validation procedures performed internally by H2M Laboratories will be based upon the following document as reference:

Technical Directive Document No. HQ-8410-01
"Functional Guidelines for Evaluation of Organic Analysis".

8.0 Health and Safety Plan

Described below are AEL's project health and safety requirements, responsibilities, and procedures to protect workers during the implementation of the Work Plan for the GCD site.

The purpose of the Work Plan is to excavate contaminated soil and backfill with crushed stone. This Health and Safety Plan is designed to protect on-site workers and to mitigate potential of off-site releases. As part of this plan, access to the areas of concern and ambient air monitoring will be performed at the location of soil disturbance, both downwind and at the site perimeter to minimize the potential for possible on-site and off-site exposure.

8.1 Requirements

The requirements for worker health and safety area based on the following:

- The Standard Operating Safety, U.S. Environmental Protection Agency (EPA), Office of Emergency and Remedial Response.
- The Occupational Safety and Health Administration (OSHA) Regulations, 29 CFR Parts 1910.120 and 1992.
- Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, NIOSH, OSHA, USCG and EPA.
- Superfund Amendments Reauthorization Act (SARA), Title I, Section 126.

8.2 Applicability

The protection of AEL's workers' and subcontractors' health and safety and the environment are major concerns during remedial activities at the GCD property. Personnel must be protected from the risk of incurring illness or injury during the field investigation at the site. Since each and every safety hazard associated with the site cannot be anticipated, precautions will be taken to prevent illness or injury to workers during the project. Based on these considerations, this health and safety plan will be applicable for each phase of the remediation at this site as described in this work plan. The implementation of this plan will be based on the judgment of the Project managers as described in the work plan.

8.3 Site Specific Information

The GCD property is used to support a commercial dredging operation at the site. The principal areas of concern are remediation of on-site soil contamination. The soils on-site are contaminated with petroleum hydrocarbons and the metals lead and zinc. Soils contaminated with petroleum hydrocarbons will be removed and shipped off site, under manifest, as a non-hazardous waste. The soils remaining after excavation and removal of surface soils may contain concentrations of the metals lead and zinc. These soils will be backfilled with crushed stone to prevent migration to subsurface waters. Some soils contamination may remain after the excavation activities described in this plan because of the shallow depth to groundwater on-site. The site is located adjacent to a creek that discharges into Great South Bay. Complete

excavation of the contaminated soils might only be accomplished using extensive and expensive dewatering methods.

On completion of remedial activities, a comprehensive work practice plan will be developed to preclude recontamination.

8.4 Hazard Characterization/Identification

The primary concern at the site is to protect the workers from contaminated subsurface soils beneath the site. During this portion of the investigation, exposure to a potential source of contamination is limited. Ambient air monitoring will be performed during any soil disturbance procedures (soil borings) and any field operations that warrant it. The health and safety officer and/or field project manager will discuss the chemical exposure concerns for the site with all field personnel at the beginning of each workday.

Each day that field work is to be performed, AEL personnel and subcontractors will be made aware of the chemical compounds that may be present on site. The health and safety symptoms of exposure to those chemical compounds will be discussed. Workers on site the previous day will be interviewed to see if they experience any of the symptoms of exposure.

8.5 Potential Exposures

Potential exposure during the remediation will be considered on a daily basis during the investigation. Therefore, disposable gloves will be worn during any contact with any medium being sampled on the property.

8.5.1 Level of Protection

Level of protection during the field investigations will be Level D and will be upgraded, if conditions require.

8.5.2 Site Personnel

The project will require the interaction of government agencies (NYSDEC), contractors, site facility operators and technical specialists. The project team will be composed of AEL and various subcontractors. The Health and Safety Plan will be implemented during all field operations performed on the property. The Field Operations Manager will be responsible for implementing safety precautions during all field activities/sampling phases.

8.5.3 General Work Practices

The following general health and safety requirements will apply to all persons working at the site:

1. All personnel working on the site investigation team shall read the Health and Safety Plan. A copy of the Acknowledgement Form is provided at the last page of this work plan.

2. No employee will be allowed in the active field investigation areas without the prior knowledge of the field project manager.
3. All personnel involved in the investigation at the site will notify the field operations manager of any unsafe conditions or activities.
4. Standard hygiene practices will be implemented such as no smoking, eating or drinking during site investigative work activities and require a thorough washing of hands and face prior to smoking, eating or drinking. At all times, personnel should perform investigative activities from upwind directions.
5. Workers will avoid unnecessary contamination such as walking through, sitting on, leaning on, or kneeling in areas that are known or suspected to be hazardous.
6. All site personnel shall observe their partners for any signs of adverse effects associated with the work activity and will inform their partner or supervisor of any unusual signs or symptoms that they are experiencing themselves.

8.6 Orientation and Training

Each member of the field investigation team has completed the 40-hour training course required by the Occupational Safety and Health Administration for personnel working at hazardous waste sites. Each field team member is trained and experienced in the standard field sampling techniques and procedures to be utilized in this project.

Each person who may be required to use respiratory protection had been medically approved, trained and fit tested with a NIOSH approved respirator appropriate for the conditions likely to be encountered. In addition, each field team member participated in an orientation session prior to commencing work at the site. The orientation will include the following:

- Project goals and objectives
- Overview of the Health and Safety Plan
- Health and safety requirements and procedures
- Chemicals contaminating the site and their properties
- Potential health and safety hazards
- Safe sampling procedures
- First aid and emergency procedures
- Use of respiratory protection and respirator fit testing
- Use of protective clothing
- Decontamination procedures
- Waste disposal procedures

8.7 Monitoring Equipment

The principal forms of chemical contamination at the site are known and are generally low hazard levels if appropriate precautionary measures are used. However, routine monitoring for health and safety purposes will be performed during all site activities.

Monitoring equipment will be operated, maintained and calibrated each working day in accordance with the manufacturer's instructions and AEL's quality assurance procedures.

Organic vapor monitoring will be conducted during field activities. Should contaminant levels indicate high hazard potential, operations will be discontinued until situation is evaluated.

8.8 Injuries

Injured or over-exposed person will be removed from the area immediately. Where applicable, first aid will be administered and/or emergency rescue team called. Depending on the nature of the injury/emergency, appropriate notifications will be made.

8.9 Levels of Protection

Four protection levels (A, B, C and D) will be used as benchmarks for selection of personal protection equipment.

Level A requires the highest degree of protection including fully encapsulating, chemical resistant suit with full face piece, SCBA or supplied air respirator. No situations are anticipated in this investigation that would require this level of protection.

Level B protection requires full chemical resistant clothing with a full-face piece SCBA or supplied air respirator. No levels of VOCs or toxic chemical expected at this site that would require this level of protection. However, provisions will be made to have this equipment available should its use to be determined to be required. Investigative activities that may result in this level of projection being required will not be implemented until the equipment has been transported to the site. Implementation of level B protection shall only be performed when sufficient trained personnel (minimum of two) are available.

Level C protection requires full-face piece, air purifying cartridge-equipped respirator (or a half-face, air purifying cartridge-equipped respirator if specifically approved), and protective coveralls, (Tyvek or full chemical resistant clothing or other protective clothing if specifically approved). Level of contaminants in the study area is not expected to require this level of protection. Activities that significantly disturb the soil or generate dust will be closely monitored to determine if upgrading to this level of protection is appropriate. Sampling and handling of highly contaminated waste or soils onsite could result in potential exposures to where this level of protection is warranted. The decision to require this level of protection will be made on a case-by-case basis. Unknown hazardous conditions suspected of containing risks that have not been identified, as part of this plan shall be investigated with Level C protection.

Level D protection requires standard work clothes, such as protective coveralls, work boots, safety glasses/goggles, and hardhat. This protection level applies to situations in which there is minimal risk of dust generation with subsequent inhalation and dermal risk to hazardous chemicals. It is currently anticipated that this level of protection will be applicable to all investigative activities both on and off site.

Should ambient air monitoring during the study indicate a need for higher protection levels that those currently in use, implementation of the appropriate level or cessation of all activities, which are generating the excessive levels, shall be performed. The level at which initial work

activities would be halted is concentrations which exceed 5 ppm above established pre-work background levels.

In addition, protection and first aid will be provided for common health hazards associated with outdoor work such as poison ivy, insect bites and stings, and ticks. Since ticks are known disease vectors, affected persons are instructed to report tick bites to a physician. Poison ivy contact should be treated immediately. A medical kit for first aid will be available in the field. Any signs of rashes, inflammation, irritation, or burning sensation will be reported immediately.

8.10 Personal Protective Equipment

All employees at the site will be required to use appropriate equipment for protection against potential hazards at the site. Since Level D is anticipated for the field investigation, equipment listed under Level D in Section 4.0 will be required.

8.11 Emergency Information

8.11.1 Emergency Services and Notification

The emergency procedure will include notifying emergency and other affected personnel and keeping their locations and emergency telephone numbers in a convenient and readily accessible area at the project site. A map showing the route from the project site to the nearest emergency medical facility will be provided at the project area.

Emergency services for the G& C site include:

Nearest Emergency Medical Facility

Southside Hospital
301 East Main Street
Bay Shore, NY

Emergency Room: (631) 968-3314

Fire/emergency calls: 911

Police Department
Suffolk County Police Department
Third Precinct
1630 Fifth Avenue
Bay Shore, NY

Emergency calls: 911
Non-emergency calls: (631) 854-8300

Poison Control Center
General Area Number: (516) 542-2323

8.12 Written Directions to Southside Hospital

From the GCD site on Homan Avenue, Bay Shore, proceed north on Homan Avenue to Montauk Highway (NYS Route 27A). Turn right on Montauk Highway to Southside Hospital.

9.0 Certification

It is hereby certified that the Revised Voluntary Cleanup Interim Remedial Measure Work Plan for Gibson and Cushman Dredging property (VCP Site No. V00352-1) dated July 7, 2005, has been reviewed, and this plan with its described excavation activities can achieve the cleanup goals identified herein.

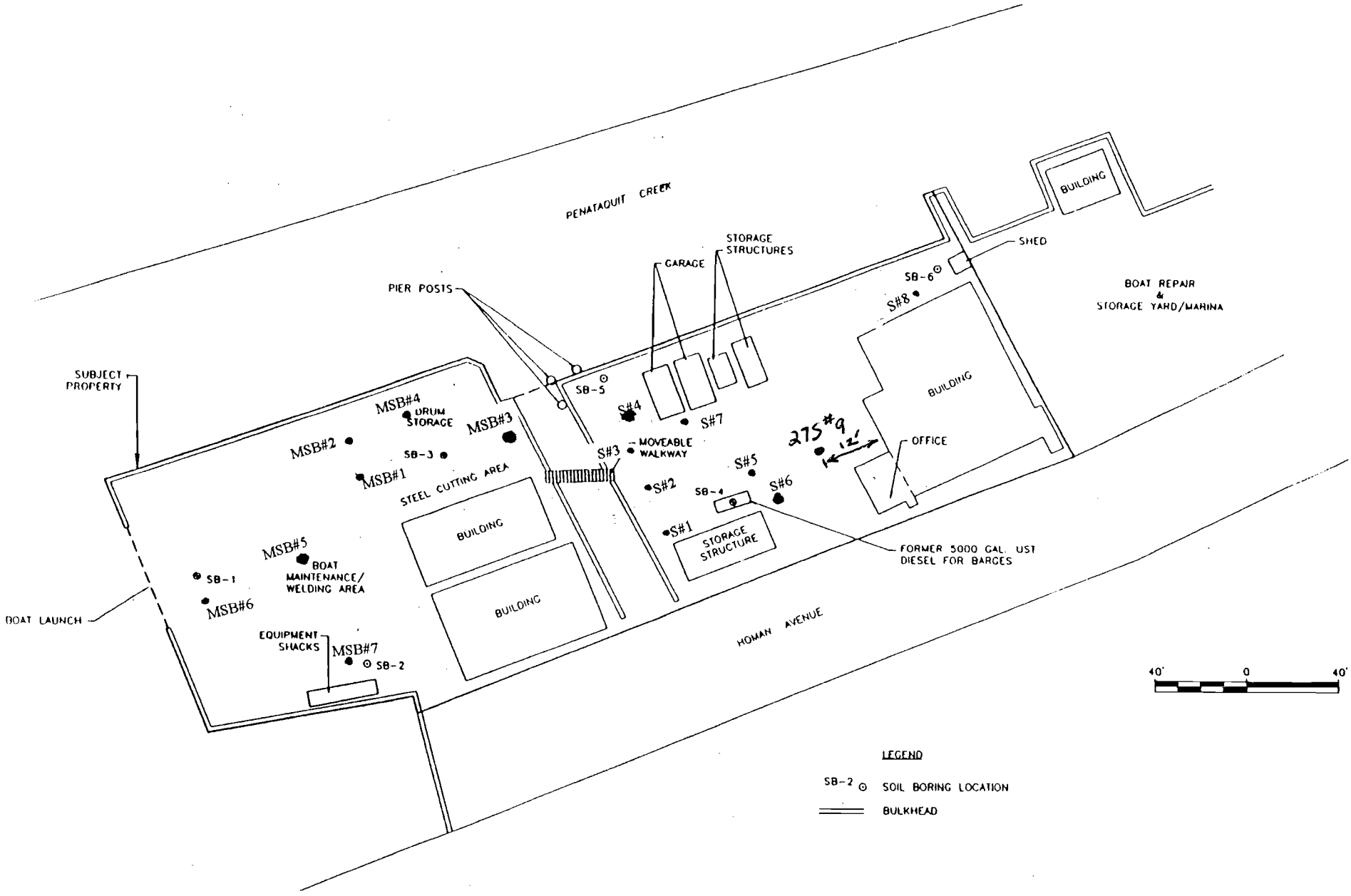
The aforementioned work plan has been reviewed by Eugene G. Kempey, P.E., License Number 68364.

Eugene G. Kempey, P.E.

Date: 7/26/05

MICROSOFT STREETS PLUS

Figure 1
Site Location Map



SB = Samples Collected 12/01/97
S# = Samples Collected 11/05/99
MSB# = Samples Collected 11/12/99
27 MSB# = Samples Collected 7/27/01

Figure 2

Site Map
Soil Sampling Locations
38 Homan Avenue
Bay Shore, NY

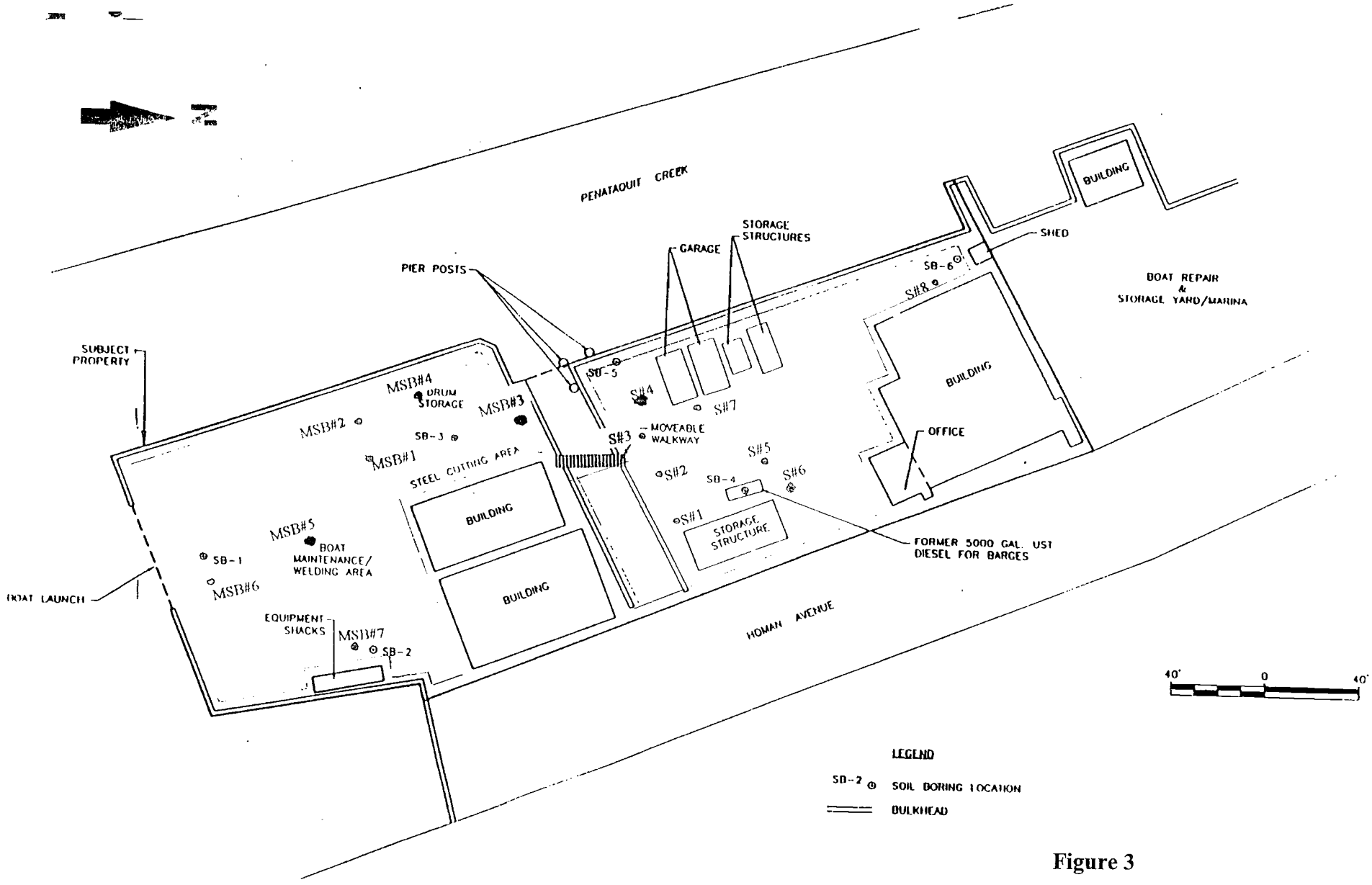


Figure 3

Proposed Excavation Areas

38 Homan Avenue
Bay Shore, NY

AEL Sampling Locations

- S# samples collected on 11/5/99
- MSB# samples collected on 11/12/99

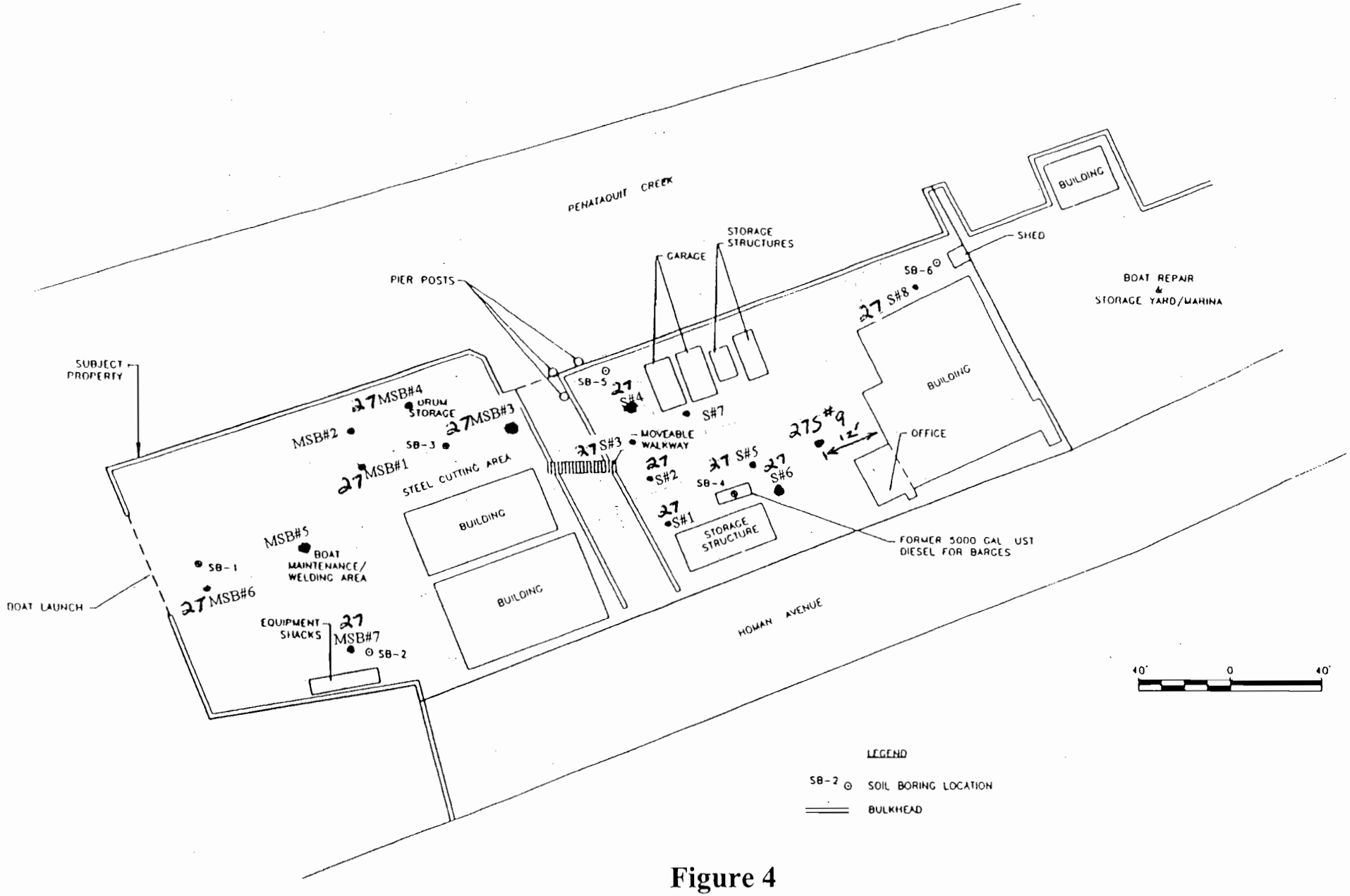


Figure 4

SB = Samples Collected 12/01/97
S# = Samples Collected 11/05/99
MSB# = Samples Collected 11/12/99
27 MSB# or 27S# = Samples Collected 7/27/01

Site Map
Soil Sampling Locations
38 Homan Avenue
Bay Shore, NY

SUFFOLK COUNTY WATER AUTHORITY

Timothy J. Hopkins
General Counsel

Administrative Offices: 4060 Sunrise Highway, Oakdale, NY 11769-0901
(631) 563-0236
Fax (631) 563-0370

May 30, 2000

Ms. Fritzi Mazzola Gros-Daillon
Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743

RE: Request for information on Homan Avenue, Bay Shore

Dear Ms. Gros-Daillon:

Please find enclosed the records responsive to your request. If you have any questions in this matter, please feel free to contact me at 631- 563-0308.

Very truly yours,

John C. Milazzo
FOIL Officer

Enclosures

WELL NUMBER & LOCATION : THOMAS AVE #2 S-50546 RAW

DATE : 08-JAN-00 **TIME :** 1540 **Hrs :** .5

IN ORGANICS

Turbidity	0.36	UNITS
Hardness	19.60	mg/l
Conductivity	37.00	umho/cm
Alkalinity	5.60	mg/l
pH	5.60	pH
Color		UNITS
MBAS	< 0.02	mg/l

RAW

UMBER & LOCATION : THOMAS AVE #2 S-50546

05-APR-00 TIME : 1200 Hrs : .5

TERIOLOGY

	6.40	pH
	A	MF 100/ml

al coliform

RAW

L NUMBER & LOCATION : THOMAS AVE #2 S-50546

: 08-JAN-00 **TIME :** 1540 **Hrs :** .5

QUID CHROMATOGRAPHY

ride	< 0.2	mg/l
trate	< 0.01	mg/l
rite	< 0.01	mg/l
o Phosphate	< 0.01	mg/l
comide	< 0.05	mg/l
uctivity	37.00	umho/cm
hloride	4.14	mg/l
tate	5.99	mg/l

WELL NUMBER & LOCATION : THOMAS AVE #2 S-50546 RAW

DATE : 08-JAN-00 **TIME :** 1540 **Hrs :** .5

MATALS

Manganese	**0.02**	mg/l
Copper	**0.06**	mg/l
Iron	**0.64**	mg/l
Nickel	**1.10**	ug/l
Strontium	**12.00**	ug/l
Silicon	**4.70**	mg/l
Aluminum	< 0.20	mg/l
Zinc	< 0.02	mg/l
Antimony	< 0.4	ug/l
Arsenic	< 1.0	ug/l
Barium	< 0.100	ug/l
Beryllium	< 0.3	ug/l
Boron	< 0.03	ug/l
Cadmium	< 0.5	ug/l
Chromium	< 10.0	ug/l
Cobalt	< 2.0	ug/l
Lead	< 1.0	ug/l
Lithium	< 1.0	ug/l
Mercury	< 0.20	ug/l
Molybdenum	< 5.0	ug/l
Phosphorus (as t-PO4)	< 0.10	ug/l
Selenium	< 2.0	ug/l
Silver	< 2.5	ug/l
Thallium	< 0.3	ug/l
Tin	< 0.5	ug/l
Titanium	< 10.0	ug/l
Uranium	< 5.0	ug/l
Vanadium	< 10.0	ug/l
Calcium	**1.60**	mg/l
Magnesium	**0.77**	mg/l
Potassium	**0.34**	mg/l
Sodium	**3.10**	mg/l

WELL NUMBER & LOCATION : THOMAS AVE #2 S-50546 RAW

DATE : 08-JAN-00 **TIME :** 1540 **Hrs :** .5

IN ORGANICS

Ammonia	< 0.01	mg/l

WELL NUMBER & LOCATION : THOMAS AVE #2 S-50546 RAW

DATE : 08-JAN-00 TIME : 1540 Hrs : .5

VOLATILE ORGANICS

13-dichloropropane	< 0.5	ug/l
4-methyl-2-pentanone	< 6.0	ug/l
bromochloromethane	< 0.5	ug/l
chloroacetonitrile	< 6.0	ug/l
methacrylonitrile	< 6.0	ug/l
methyl-t-butyl ether	< 0.5	ug/l
naphthalene	< 0.5	ug/l
11-dichloroethane	< 0.5	ug/l
1-dichloroethene	< 0.5	ug/l
11-dichloropropene	< 0.5	ug/l
111-trichloroethane	< 0.5	ug/l
112-tetrachloroethane	< 0.5	ug/l
112-trichloroethane	< 0.5	ug/l
122-tetrachloroethane	< 0.5	ug/l
12-dibromo-3-chloropropane	< 0.5	ug/l
2-dibromoethane	< 0.5	ug/l
2-dichlorobenzene	< 0.5	ug/l
12-dichloroethane	< 0.5	ug/l
2-dichloropropane	< 0.5	ug/l
123-trichlorobenzene	< 0.5	ug/l
23-trichloropropane	< 0.5	ug/l
24-trichlorobenzene	< 0.5	ug/l
124-trimethylbenzene	< 0.5	ug/l
3-dichlorobenzene	< 0.5	ug/l
135-trimethylbenzene	< 0.5	ug/l
4-dichlorobenzene	< 0.5	ug/l
-chlorotoluene	< 0.5	ug/l
2-hexanone	< 6.0	ug/l
-nitropropane	< 0.5	ug/l
22-dichloropropane	< 0.5	ug/l
-chlorotoluene	< 0.5	ug/l
-isopropyltoluene	< 0.5	ug/l
benzene	< 0.5	ug/l
romobenzene	< 0.5	ug/l
bromodichloromethane	< 0.5	ug/l
romoform	< 0.5	ug/l
romomethane	< 0.5	ug/l
c-12-dichloroethene	< 0.5	ug/l
-13-dichloropropene	< 0.5	ug/l
carbon tetrachloride	< 0.5	ug/l

WELL NUMBER & LOCATION : THOMAS AVE #2 S-50546 RAW

DATE : 08-JAN-00 **TIME :** 1540 **Hrs :** .5

VOLATILE ORGANICS

chlorobenzene	< 0.5	ug/l
chloroethane	< 0.5	ug/l
chloroform	< 0.5	ug/l
chloromethane	< 0.5	ug/l
dibromochloromethane	< 0.5	ug/l
dibromomethane	< 0.5	ug/l
dichlorodifluoromethane	< 0.5	ug/l
ethyl benzene	< 0.5	ug/l
hexachlorobutadiene	< 0.5	ug/l
isopropylbenzene	< 0.5	ug/l
methylene chloride	< 0.5	ug/l
n-butylbenzene	< 0.5	ug/l
n-propylbenzene	< 0.5	ug/l
o-xylene	< 0.5	ug/l
p,m-xylene	< 0.5	ug/l
sec-butylbenzene	< 0.5	ug/l
styrene	< 0.5	ug/l
t-12-dichloroethene	< 0.5	ug/l
t-13-dichloropropene	< 0.5	ug/l
tert-butylbenzene	< 0.5	ug/l
tetrachloroethene	< 0.5	ug/l
toluene	< 0.5	ug/l
trichloroethene	< 0.5	ug/l
trichlorofluoromethane	< 0.5	ug/l
vinyl chloride	< 0.5	ug/l
1-chlorobutane	< 6.0	ug/l
acetone	< 6.0	ug/l
acrylonitrile	< 6.0	ug/l
allyl chloride	< 6.0	ug/l
carbon disulfide	< 6.0	ug/l
diethyl ether	< 6.0	ug/l
ethyl methacrylate	< 6.0	ug/l
hexachloroethane	< 6.0	ug/l
methyl acrylate	< 6.0	ug/l
methyl iodide	< 6.0	ug/l
methylethylketone	< 6.0	ug/l
propionitrile	< 6.0	ug/l
tetrahydrofuran	< 0.5	ug/l
bromochloroethane	< 0.5	ug/l
chloroacetontrile	< 0.5	ug/l

WELL NUMBER & LOCATION : THOMAS AVE #2 S-50546 RAW

TE : 08-JAN-00 **TIME :** 1540 **Hrs :** .5

VOLATILE ORGANICS

ethyacrylonitrile	< 0.5	ug/l
apthalene	< 0.5	ug/l

WELL NUMBER & LOCATION : THOMAS AVE #2 S-50546 RAW

ATE : 07-SEP-99 TIME : 1045 Hrs : 1.5

MICROEXTRACTABLES

1,2-dibromo-3-chloropropane	< 0.01	ug/l
1,2-dibromoethane	< 0.01	ug/l

WELL NUMBER & LOCATION : THOMAS AVE #2 S-50546 RAW

DATE : 07-MAR-00 **TIME :** 1230 **Hrs :** .5

LIQUID CHROMATOGRAPHY

1-Napthol	< 0.5	ug/l
3-Hydroxycarbofuran	< 0.5	ug/l
Aldicarb	< 0.5	ug/l
Aldicarb Sulfone	< 0.5	ug/l
Aldicarb Sulfoxide	< 0.5	ug/l
Carbaryl	< 0.5	ug/l
Carbofuran	< 0.5	ug/l
Methiocarb	< 0.5	ug/l
Methomyl	< 0.5	ug/l
Oxamyl	< 0.5	ug/l
Propoxur	< 0.5	ug/l

WELL NUMBER & LOCATION : THOMAS AVE #2 S-50546 RAW

DATE : 07-MAR-00 **TIME :** 1230 **Hrs :** .5

IN ORGANICS

Cyanide	< 5.0	ug/l

WELL NUMBER & LOCATION : THOMAS AVE #2 S-50546 RAW

DATE : 05-APR-00 **TIME :** 1200 **Hrs :** .5

LIQUID CHROMATOGRAPHY

Perchlorate	< 3.0	ug/l

WELL NUMBER & LOCATION : THOMAS AVE #2 S-50546 RAW

DATE : 11-SEP-99 **TIME :** **Hrs :** 1.5

PESTICIDES

bromochloroacetic acid	< 0.40	ug/l
dichloroacetic acid	< 0.60	ug/l
bromodichloroacetic acid	< 0.40	ug/l
chlorodibromoacetic acid	< 1.0	ug/l
dalapon	< 0.40	ug/l
dibromoacetic acid	< 0.40	ug/l
monobromoacetic acid	< 0.60	ug/l
monochloroacetic acid	< 0.40	ug/l
tribromoacetic acid	< 2.00	ug/l
trichloroacetic acid	< 0.20	ug/l

ELL NUMBER & LOCATION : THOMAS AVE #2 S-50546 RAW

E : 07-SEP-99 **TIME :** 1045 **Hrs :** 1.5

PESTICIDES

2 ,5-T	< 0.3	ug/l
2,4-D	< 0.2	ug/l
2 4-DB	< 0.7	ug/l
3 5-dichlorobenzoic acid	< 0.03	ug/l
4-nitrophenol	< 0.03	ug/l
itluorten	< 0.03	ug/l
bentazon	< 0.5	ug/l
chloramben	< 0.2	ug/l
camba	< 0.02	ug/l
dichlorprop	< 0.08	ug/l
noseb	< 0.11	ug/l
pentachlorophenol	< 0.03	ug/l
picloram	< 0.05	ug/l
ivex	< 0.05	ug/l

L NUMBER & LOCATION : THOMAS AVE #2 S-50546 RAW

E 07-SEP-99 TIME : 1045 Hrs : 1.5

QUID CHROMATOGRAPHY

y osate < 6.0 ug/l

ELL NUMBER & LOCATION : THOMAS AVE #2 S-50546 RAW

E : 07-SEP-99 TIME : 1045 Hrs : 1.5

LIQUID CHROMATOGRAPHY

raquat	< 0.80	ug/l
Diquat	< 0.44	ug/l

E : 07/06/99 TIME: 1700 NYS WELL NO: S-46235
DATA ID : Q RUNTIME (HRS): 1.0 SOURCE: RAW
COLLECTION PT.: TREATMENT :

HIUM UG/L	<1.0
LLIUM UG/L	<0.3
LUMINUM MG/L	<0.020
ICON MG/L	5.2
ANIUM UG/L	<10.0
AL CHROMIUM UG/L	<10.0
MANGANESE MG/L	<0.01
RON MG/L	0.42
KEL UG/L	1.2
PER MG/L	<0.02
INC MG/L	<0.02
ARSENIC UG/L	<5.0
ENIUM UG/L	<2.0
VER UG/L	<2.5
MIUM UG/L	<0.5
TIN UG/L	<0.5
ANTIMONY UG/L	<0.4
IUM UG/L	<100.
CURY UG/L	<0.2
THALLIUM UG/L	<0.3
LEAD UG/L	<1.0
TAL PHOSPHATE MG/L	<0.10
ORIDE MG/L	<0.2
ORIDE MG/L	3.4
NITRITE MG/L	<0.10
BROMIDE MG/L	<0.05
RATE MG/L	<0.10
HO PHOSPHATE MG/L	<0.10
SULFATE MG/L	4.3
SURFACTANTS MG/L	<0.02
OR-UNITS	<5.
BIDITY NT UNITS	0.17
	5.5
SPECIFIC CONDUCTANCE UMHO/CM	31.
TOTAL HARDNESS MG/L	8.4
AL ALKALINITY MG/L	4.2
E AMMONIA MG/L	<0.01
SODIUM MG/L	3.0
POTASSIUM MG/L	0.33
CIUM MG/L	1.1
GNESIUM MG/L	0.64
TION SUM ME/L	0.25
ANION SUM ME/L	0.27
TOTAL DISSOLVED SOLIDS MG/L	24.
SATURATION	10.9
NGELIER SATURATION INDEX	-5.4
AGGRESSIVENESS INDEX	6.6

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

THOMAS AVE #1
10/06/97 TIME: 2300 NYS WELL NO: S-46235
Q RUNTIME (HRS): 0.5 SOURCE: RAW
ION PT.: TREATMENT :

COLIFORM MF/100ML	<1.
B SULFOXIDE UG/L	<0.5
B SULFONE UG/L	<0.5
UG/L	<0.5
OMYL UG/L	<0.5
DROXYCARBOFURAN UG/L	<0.5
B UG/L	<0.5
JRAN UG/L	<0.5
ARYL UG/L	<0.5
PHTHOL UG/L	<0.5
JR UG/L	<0.5
CARB UG/L	<0.5
(2-ETHYLHEXYL)ADIPATE UG/L	<0.60
(2-ETHYLHEXYL)PHTHLATE	<0.60
LOROCYCLOPENTADIENE UG/L	<0.10
THAL UG/L	<0.05
AZINE UG/L	<0.07
NE UG/L	<0.10
OR UG/L	<0.20
ACHLOR UG/L	<0.50
ACHLOR UG/L	<0.20
BUZIN UG/L	<0.025
CHLOR UG/L	<0.10
HLOROBENZENE UG/L	<0.1
DANE UG/L	<0.02
TACHLOR UG/L	<0.04
N UG/L	<0.075
CHLOR EPOXIDE UG/L	<0.02
ELDRIN UG/L	<0.025
DRIN UG/L	<0.01
OXYCHLOR	<0.10
DANE UG/L	<0.20
PHENE UG/L	<1.0
OCHLOR 1016 UG/L	<0.08
OCHLOR 1221 UG/L	<5.0
HLOR 1232 UG/L	<0.50
HLOR 1242 UG/L	<0.30
OCHLOR 1248 UG/L	<0.10
OCHLOR 1254 UG/L	<0.10
HLOR 1260 UG/L	<0.20
ANAZINE UG/L	<0.07
-BHC UG/L	<0.05
-BHC UG/L	<0.05
TA-BHC UG/L	<0.05
DDE UG/L	<0.025
DDD UG/L	<0.01

OTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

DATA ID : RUNTIME (HRS): 0.5 SOURCE: RAW
COLLECTION PT.: TREATMENT :

THYLENE CHLORIDE UG/L	<0.5
,1-DICHLOROETHYLENE UG/L	<0.5
1,1-DICHLOROETHANE UG/L	<0.5
ANS-1,2-DICHLOROETHELEN UG/L	<0.5
S-1,2-DICHLOROETHENE UG/L	<0.5
LOROFORM UG/L	<0.5
1,2-DICHLOROETHANE UG/L	<0.5
1,1,1-TRICHLOROETHANE UG/L	<0.5
RBON TETRACHLORIDE UG/L	<0.5
OMODICHLOROMETHANE UG/L	<0.5
,2-DICHLOROPROPANE UG/L	<0.5
CIS-1,3-DICHLOROPROPENE UG/L	<0.5
ICHLOROETHYLENE UG/L	<0.5
1,2-TRICHLOROETHANE UG/L	<0.5
LORODIBROMOMETHANE UG/L	<0.5
TRANS-1,3-DICHLOROPROPENE UG/L	<0.5
BROMOFORM UG/L	<0.5
TRACHLOROETHYLENE UG/L	<0.5
1,2,2-TETRACHLOROETHANE UG/L	<0.5
HLOROBENZENE UG/L	<0.5
VINYL CHLORIDE UG/L	<0.5
BROMOMETHANE UG/L	<0.5
OMOCHLOROMETHANE UG/L	<0.5
ROMOMETHANE UG/L	<0.5
CHLOROETHANE UG/L	<0.5
HLOROMETHANE UG/L	<0.5
CHLORODIFLUOROMETHANE UG/L	<0.5
3-DICHLOROPROPANE UG/L	<0.5
2,2-DICHLOROPROPANE UG/L	<0.5
1,1-DICHLOROPROPENE UG/L	<0.5
1,1,2-TETRACHLOROETHANE UG/L	<0.5
ICHLOROFLUOROMETHANE UG/L	<0.5
,2,3-TRICHLOROPROPANE UG/L	<0.5
1,1,2TRICHLOROTRIFLUOROETHANE	<0.5
BROMO-2-CHLOROETHANE	<0.5
ENZENE UG/L	<0.5
TOLUENE UG/L	<0.5
ETHYLBENZENE UG/L	<0.5
-XYLENE UG/L	<0.5
,4-DICHLOROBENZENE UG/L	<0.5
,3-DICHLOROBENZENE UG/L	<0.5
1,2-DICHLOROBENZENE UG/L	<0.5
ROMOBENZENE UG/L	<0.5
-BUTYLBENZENE UG/L	<0.5
EC-BUTYLBENZENE UG/L	<0.5
TERT-BUTYLBENZENE UG/L	<0.5
2-CHLOROTOLUENE UG/L	<0.5
-CHLOROTOLUENE UG/L	<0.5

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

DATE : 10/09/99 TIME: 1540 NYS WELL NO: S-46235
DATA ID : RUNTIME (HRS): 0.5 SOURCE: RAW
COLLECTION PT.: TREATMENT :

HEXACHLOROBUTADIENE UG/L	<0.5
ISOPROPYLBENZENE UG/L	<0.5
4-ISOPROPYLTOLUENE UG/L	<0.5
NAPHTHALENE UG/L	<0.5
N-PROPYLBENZENE UG/L	<0.5
STYRENE UG/L	<0.5
1,2,3-TRICHLOROBENZENE UG/L	<0.5
1,2,4-TRICHLOROBENZENE UG/L	<0.5
1,2,4-TRIMETHYLBENZENE UG/L	<0.5
1,3,5-TRIMETHYLBENZENE UG/L	<0.5
TERT BUTYL METHYL ETHER UG/L	<0.5
2-BUTANONE (MEK) UG/L	<6.0
TETRAHYDROFURAN UG/L	<6.0
M XYLENE UG/L	<0.5
1,2,4,5 - TETRAMETHYLBENZENE	<0.5
t-BUTANOL	<0.5

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

COMPILED BY SCWA LABORATORY

:B SULFOXIDE UG/L	<0.5
:C SULFONE UG/L	<0.5
/L	<0.5
Y UG/L	<0.5
OXYCARBOFURAN UG/L	<0.5
RB UG/L	<0.5
L N UG/L	<0.5
UG/L	<0.5
ITHOL UG/L	<0.5
(UR UG/L	<0.5
)''RB UG/L	<0.5
I..OMOETHANE UG/L	<0.01
BROMO-3CHLOROPROPANE UG/L	<0.01

"<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

: 10/06/97 TIME: 2300 NYS WELL NO: S-46235

ATA ID : Q RUNTIME (HRS): 0.5 SOURCE: RAW

OLLECTION PT.: TREATMENT :

DDT UG/L	<0.05
NDOSULFAN I UG/L	<0.025
NDOSULFAN II UG/L	<0.025
ALACIL UG/L	<0.20
ETHYLATRAZINE UG/L	<0.20
ISOPROPYLATRAZINE UG/L	<0.40
ESISOPROPYLATRAZINE UG/L	<0.10
ICAMBA UG/L	<0.28
-D UG/L	<0.28
TACHLOROPHENOL UG/L	<0.04
ILVEX(2,4,5-TP) UG/L	<0.20
INOSEB UG/L	<0.20
LORAM UG/L	<0.10
RACHLOROTEREPHTHALIC ACID	<4.0
ENTAZON UG/L	<0.63
APON UG/L	<1.0
PHOSATE UG/L	<6.0
IQUAT UG/L	<0.44
AQUAT UG/L	<0.80

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

DATE : 10/09/99 TIME: 1540 NYS WELL NO: S-46235
DATA ID : Q RUNTIME (HRS): 0.5 SOURCE: RAW
.LECTION PT.: TREATMENT :

;AL COLIFORM MF/100ML <1.

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

TE : 10/09/99 TIME: 1541 NYS WELL NO: S-46235
DATA ID : Q RUNTIME (HRS): 0.5 SOURCE: RAW
COLLECTION PT.: TREATMENT :

RCHLORATE UG/L	<3.0

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

TE : 08/27/99 TIME: 0400 NYS WELL NO: S-20566
DATA ID : RUNTIME (HRS): 24.0 SOURCE: RAW
COLLECTION PT.: TREATMENT :

OMOBENZENE UG/L	<0.5
BUTYLBENZENE UG/L	<0.5
SEC-BUTYLBENZENE UG/L	<0.5
ERT-BUTYLBENZENE UG/L	<0.5
CHLOROTOLUENE UG/L	<0.5
CHLOROTOLUENE UG/L	<0.5
HEXACHLOROBUTADIENE UG/L	<0.5
ISOPROPYLBENZENE UG/L	<0.5
ISOPROPYLTOLUENE UG/L	<0.5
PHTHALENE UG/L	<0.5
N-PROPYLBENZENE UG/L	<0.5
STYRENE UG/L	<0.5
2,3-TRICHLOROBENZENE UG/L	<0.5
2,4-TRICHLOROBENZENE UG/L	<0.5
2,4-TRIMETHYLBENZENE UG/L	<0.5
1,3,5-TRIMETHYLBENZENE UG/L	<0.5
TERT BUTYL METHYL ETHER UG/L	<0.5
BUTANONE (MEK) UG/L	<6.0
ETRAHYDROFURAN UG/L	<6.0
P, M XYLENE UG/L	<0.5
1,2,4,5 - TETRAMETHYLBENZENE	<0.5
BUTANOL	<0.5

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

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\TE : 08/27/99 TIME: 0400 NYS WELL NO: S-20566
DATA ID : RUNTIME (HRS): 24.0 SOURCE: RAW
COLLECTION PT.: TREATMENT :

?ON MG/L	.210
.ANGANESE MG/L	<0.01
ETHYLENE CHLORIDE UG/L	<0.5
1-DICHLOROETHYLENE UG/L	<0.5
1-DICHLOROETHANE UG/L	<0.5
TRANS-1,2-DICHLOROETHELEN UG/L	<0.5
CIS-1,2-DICHLOROETHENE UG/L	<0.5
ILOROFORM UG/L	<0.5
2-DICHLOROETHANE UG/L	<0.5
,1,1-TRICHLOROETHANE UG/L	<0.5
CARBON TETRACHLORIDE UG/L	<0.5
?OMODICHLOROMETHANE UG/L	<0.5
2-DICHLOROPROPANE UG/L	<0.5
S-1,3-DICHLOROPROPENE UG/L	<0.5
TRICHLOROETHYLENE UG/L	<0.5
,1,2-TRICHLOROETHANE UG/L	<0.5
ILORODIBROMOMETHANE UG/L	<0.5
RANS-1,3-DICHLOROPROPENE UG/L	<0.5
BROMOFORM UG/L	<0.5
TETRACHLOROETHYLENE UG/L	<0.5
1,2,2-TETRACHLOROETHANE UG/L	<0.5
ILOROBENZENE UG/L	<0.5
NYL CHLORIDE UG/L	<0.5
DIBROMOMETHANE UG/L	<0.5
ROMOCHLOROMETHANE UG/L	<0.5
?OMOMETHANE UG/L	<0.5
ILOROETHANE UG/L	<0.5
CHLOROMETHANE UG/L	<0.5
DICHLORODIFLUOROMETHANE UG/L	<0.5
3-DICHLOROPROPANE UG/L	<0.5
2-DICHLOROPROPANE UG/L	<0.5
,1-DICHLOROPROPENE UG/L	<0.5
1,1,1,2-TETRACHLOROETHANE UG/L	<0.5
RICHLOROFLUOROMETHANE UG/L	<0.5
2,3-TRICHLOROPROPANE UG/L	<0.5
1,2TRICHLOROTRIFLUOROETHANE	<0.5
1-BROMO-2-CHLOROETHANE	<0.5
2-DIBROMOETHANE UG/L	<0.01
2DIBROMO-3CHLOROPROPANE UG/L	<0.01
BENZENE UG/L	<0.5
OLUENE UG/L	<0.5
HYLBENZENE UG/L	<0.5
XYLENE UG/L	<0.5
1,4-DICHLOROBENZENE UG/L	<0.5
,3-DICHLOROBENZENE UG/L	<0.5
2-DICHLOROBENZENE UG/L	<0.5

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

: 07/26/99 TIME: 0115 NYS WELL NO: S-20566
ATA ID : RUNTIME (HRS): 168. SOURCE: RAW
OLLECTION PT.: TREATMENT :

MG/L	.240
ANGANESE MG/L	<0.01
CARB SULFOXIDE UG/L	<0.5
CARB SULFONE UG/L	<0.5
IYL UG/L	<0.5
ETHOMYL UG/L	<0.5
-HYDROXYCARBOFURAN UG/L	<0.5
CARB UG/L	<0.5
OFURAN UG/L	<0.5
ARBARYL UG/L	<0.5
-NAPHTHOL UG/L	<0.5
OXUR UG/L	<0.5
IOCARB UG/L	<0.5
ETHYLENE CHLORIDE UG/L	<0.5
1-DICHLOROETHYLENE UG/L	<0.5
-DICHLOROETHANE UG/L	<0.5
NS-1,2-DICHLOROETHELEN UG/L	<0.5
IS-1,2-DICHLOROETHENE UG/L	<0.5
HLOROFORM UG/L	<0.5
-DICHLOROETHANE UG/L	<0.5
,1-TRICHLOROETHANE UG/L	<0.5
ARBON TETRACHLORIDE UG/L	<0.5
ROMODICHLOROMETHANE UG/L	<0.5
-DICHLOROPROPANE UG/L	<0.5
-1,3-DICHLOROPROPENE UG/L	<0.5
CHLOROETHYLENE UG/L	<0.5
,1,2-TRICHLOROETHANE UG/L	<0.5
HLORODIBROMOMETHANE UG/L	<0.5
NS-1,3-DICHLOROPROPENE UG/L	<0.5
MOFORM UG/L	<0.5
RACHLOROETHYLENE UG/L	<0.5
1,1,2,2-TETRACHLOROETHANE UG/L	<0.5
OROBENZENE UG/L	<0.5
YL CHLORIDE UG/L	<0.5
ROMOMETHANE UG/L	<0.5
BROMOCHLOROMETHANE UG/L	<0.5
ROMOMETHANE UG/L	<0.5
OROETHANE UG/L	<0.5
OROMETHANE UG/L	<0.5
DICHLORODIFLUOROMETHANE UG/L	<0.5
1,3-DICHLOROPROPANE UG/L	<0.5
-DICHLOROPROPANE UG/L	<0.5
-DICHLOROPROPENE UG/L	<0.5
,1,1,2-TETRACHLOROETHANE UG/L	<0.5
TRICHLOROFLUOROMETHANE UG/L	<0.5
1.2,3-TRICHLOROPROPANE UG/L	<0.5
1,2TRICHLOROTRIFLUOROETHANE	<0.5
BROMO-2-CHLOROETHANE	<0.5

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

2-DIBROMOETHANE UG/L	<0.01
1,2DIBROMO-3CHLOROPROPANE UG/L	<0.01
:NZENE UG/L	<0.5
)LUENE UG/L	<0.5
ETHYLBENZENE UG/L	<0.5
O-XYLENE UG/L	<0.5
4-DICHLOROBENZENE UG/L	<0.5
3-DICHLOROBENZENE UG/L	<0.5
2-DICHLOROBENZENE UG/L	<0.5
BROMOBENZENE UG/L	<0.5
-BUTYLBENZENE UG/L	<0.5
EC-BUTYLBENZENE UG/L	<0.5
ERT-BUTYLBENZENE UG/L	<0.5
2-CHLOROTOLUENE UG/L	<0.5
4-CHLOROTOLUENE UG/L	<0.5
EXACHLOROBUTADIENE UG/L	<0.5
SOPROPYLBENZENE UG/L	<0.5
-ISOPROPYLTOLUENE UG/L	<0.5
NAPHTHALENE UG/L	<0.5
-PROPYLBENZENE UG/L	<0.5
'YRENE UG/L	<0.5
2,3-TRICHLOROBENZENE UG/L	<0.5
1,2,4-TRICHLOROBENZENE UG/L	<0.5
1,2,4-TRIMETHYLBENZENE UG/L	<0.5
3,5-TRIMETHYLBENZENE UG/L	<0.5
ERT BUTYL METHYL ETHER UG/L	<0.5
-BUTANONE (MEK) UG/L	<6.0
TETRAHYDROFURAN UG/L	<6.0
M XYLENE UG/L	<0.5
2,4,5 - TETRAMETHYLBENZENE	<0.5
BUTANOL	<0.5

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

: 07/26/99 TIME: 0115 NYS WELL NO: S-20566

ID : Q RUNTIME (HRS): 168. SOURCE: RAW

TION PT.: TREATMENT :

L COLIFORM MF/100ML <1.

E UG/L <5.

OTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

DCATION: FIFTH AVE #32
ATE : 07/26/99 TIME: 0116 NYS WELL NO: S-20566
DATA ID : Q RUNTIME (HRS): 168. SOURCE: RAW
COLLECTION PT.: TREATMENT :

ERCHLORATE UG/L	<3.0

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

ATE : 07/26/99 TIME: 0117 NYS WELL NO: S-20566
DATA ID : Q RUNTIME (HRS): 17.0 SOURCE: RAW
COLLECTION PT.: TREATMENT :

ITHIUM UG/L	<1.0
BERYLLIUM UG/L	<0.3
ALUMINUM MG/L	.026
ILICON MG/L	4.0
ITANIUM UG/L	<10.0
OTAL CHROMIUM UG/L	<10.0
MANGANESE MG/L	<0.01
RON MG/L	0.13
ICKEL UG/L	3.8
OPPER MG/L	<0.02
INC MG/L	<0.02
ARSENIC UG/L	<5.0
ELENIUM UG/L	<2.0
ILVER UG/L	<2.5
ADMIUM UG/L	<0.5
TIN UG/L	<0.5
NTIMONY UG/L	<0.4
ARIUM UG/L	<100.
ERCURY UG/L	<0.2
THALLIUM UG/L	<0.3
LEAD UG/L	<1.0
OTAL PHOSPHATE MG/L	<0.10
LUORIDE MG/L	<0.2
HLORIDE MG/L	3.3
NITRITE MG/L	<0.10
ROMIDE MG/L	<0.05
ITRATE MG/L	<0.10
RTHO PHOSPHATE MG/L	<0.10
SULFATE MG/L	3.1
SURFACTANTS MG/L	<0.02
OLOR-UNITS	<5.
URBIDITY NT UNITS	0.14
PH	5.5
SPECIFIC CONDUCTANCE UMHO/CM	29.
OTAL HARDNESS MG/L	6.0
OTAL ALKALINITY MG/L	4.0
REE AMMONIA MG/L	<0.01
SODIUM MG/L	3.2
POTASSIUM MG/L	0.41
ALCIUM MG/L	0.5
AGNESIUM MG/L	0.79
CATION SUM ME/L	0.24
ANION SUM ME/L	0.24
OTAL DISSOLVED SOLIDS MG/L	23.
H SATURATION	11.2
LANGELIER SATURATION INDEX	-5.7
AGGRESSIVENESS INDEX	6.2

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

TE : 07/26/98 TIME: 1000 NYS WELL NO: S-20566
DATA ID : Q RUNTIME (HRS): 24.0 SOURCE: RAW
COLLECTION PT.: TREATMENT :

DICARB SULFOXIDE UG/L	<0.5
LDICARB SULFONE UG/L	<0.5
OXAMYL UG/L	<0.5
THOMYL UG/L	<0.5
HYDROXYCARBOFURAN UG/L	<0.5
DICARB UG/L	<0.5
CARBOFURAN UG/L	<0.5
CARBARYL UG/L	<0.5
NAPHTHOL UG/L	<0.5
OPOXUR UG/L	<0.5
METHIOCARB UG/L	<0.5
CAMBA UG/L	<0.28
4-D UG/L	<0.28
ENTACHLOROPHENOL UG/L	<0.04
SILVEX(2,4,5-TP) UG/L	<0.20
DINOSEB UG/L	<0.20
CLORAM UG/L	<0.10
ETRACHLOROTEREPHTHALIC ACID	<4.0
BENTAZON UG/L	<0.63
LYPHOSATE UG/L	<6.0
IQUAT UG/L	<0.44
PARAQUAT UG/L	<0.80
HENANTHRENE UG/L	<0.150
RENE UG/L	<0.030
1,2-BENZANTHRACENE UG/L	<0.015
CHRYSENE UG/L	<0.045
ENZO(B)FLUORANTHENE UG/L	<0.060
ENZO(K)FLUORANTHEN UG/L	<0.030
ENZO-A-PYRENE UG/L	<0.015
1,2,5,6-DIBENZATHRACENE UG/L	<0.015

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

TE : 07/26/98 TIME: 1200 NYS WELL NO: S-20566
DATA ID : Q RUNTIME (HRS): 24.0 SOURCE: RAW
COLLECTION PT.: TREATMENT :

LAPON UG/L <1.0

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

E : 07/26/98 TIME: 1020 NYS WELL NO: S-20566
A ID : Q RUNTIME (HRS): 24.0 SOURCE: RAW
CTION PT.: TREATMENT :

ACHLOROCYCLOPENTADIENE UG/L	<0.004
THAL UG/L	<0.009
INE UG/L	<0.008
INE UG/L	<0.003
LOR UG/L	<0.009
OLACHLOR UG/L	<0.015
ACHLOR UG/L	<0.070
BUZIN UG/L	<0.009
CHLOR UG/L	<0.008
XACHLOROBENZENE UG/L	<0.001
NDANE UG/L	<0.02
CHLOR UG/L	<0.005
N UG/L	<0.009
ACHLOR EPOXIDE UG/L	<0.001
ELDRIN UG/L	<0.003
DRIN UG/L	<0.007
OXYCHLOR	<0.003
RDANE UG/L	<0.20
XAPHENE UG/L	<1.0
OCHLOR 1016 UG/L	<0.03
HLOR 1221 UG/L	<0.04
HLOR 1232 UG/L	<0.03
CHLOR 1242 UG/L	<0.04
OCHLOR 1248 UG/L	<0.04
OCHLOR 1254 UG/L	<0.04
HLOR 1260 UG/L	<0.01
ANAZINE UG/L	<0.007
PHA-BHC UG/L	<0.001
ETA-BHC UG/L	<0.009
A-BHC UG/L	<0.004
DDE UG/L	<0.003
DDD UG/L	<0.003
,4 DDT UG/L	<0.004
DOSULFAN I UG/L	<0.006
OSULFAN II UG/L	<0.001
MACIL UG/L	<0.200
ESETHYLATRAZINE UG/L	<0.20
ESISOPROPYLATRAZINE UG/L	<0.40
PHORONE UG/L	<0.15
CHLORVOS UG/L	<0.04
HEXACHLOROCYCLOPENTADIENE UG/L	<0.06
EPTC UG/L	<0.04
HENAMID UG/L	<0.06
IETHYLPHTHALATE UG/L	<0.06
ACENAPHTHALENE UG/L	<0.18
MEVINPHOS UG/L	<0.05
FYLATE UG/L	<0.04
RNOLATE UG/L	<0.03

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

ATE : 07/26/98 TIME: 1020 NYS WELL NO: S-20566
DATA ID : Q RUNTIME (HRS): 24.0 SOURCE: RAW
COLLECTION PT.: TREATMENT :

BULATE UG/L	<0.03
RIDIAZOLE UG/L	<0.02
DIAZINON	<0.03
LORONEB UG/L	<0.02
CHLOROBIPHENYL UG/L	<0.05
BUTHIURON UG/L	<0.06
FLUORENE UG/L	<0.03
ETHYPHTHALATE UG/L	<0.03
TALAXYL	<0.02
LINATE UG/L	<0.02
ROAMIDE UG/L	<0.03
PROPACHLOR UG/L	<0.02
HOPROP UG/L	<0.02
CLOATE UG/L	<0.02
LORPROPHAM UG/L	<0.04
2,3-DICHLOROBIPHENYL UG/L	<0.03
HC, ALPHA UG/L	<0.14
LATHION	<0.12
XACHLOROBENZENE UG/L	<0.02
SIMAZINE UG/L	<0.05
TOXAPHENE	<0.19
RAZINE UG/L	<0.05
RAZINE UG/L	<0.06
C, BETA UG/L	<0.06
BHC, GAMMA (LINDANE) UG/L	<0.04
ETHYL PARAOXON UG/L	<0.06
C, DELTA UG/L	<0.04
ENANTHRENE UG/L	<0.02
PROPAZINE UG/L	<0.04
ANTHRACENE UG/L	<0.05
LORDANE (GAMMA) UG/L	<0.05
RFLURAZON UG/L	<0.04
RBACIL UG/L	<0.07
2,4,5-TRICHLOROBIPHENYL UG/L	<0.03
TRACHLORVINPHOS UG/L	<0.07
LOROTHALONIL UG/L	<0.04
PTACHLOR UG/L	<0.04
METRIBUZIN UG/L	<0.04
-N-BUTYLPHTHALATE UG/L	<0.5
ETRYN UG/L	<0.13
TRYN UG/L	<0.11
ACHLOR UG/L	<0.03
BROMACIL UG/L	<0.12
2',4,4'-TETRACHLOROBIPHENYL	<0.04
TOLACHLOR UG/L	<0.03
ANAZINE UG/L	<0.08
ALDRIN UG/L	<0.14
ERBUTRYN UG/L	<0.11
IADIMEFON UG/L	<0.05

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

PA UG/L	<0.03
MGK 264 - ISOMER A UG/L	<0.25
MGK 264 - ISOMER B UG/L	<0.25
PTACHLOR EPOXIDE UG/L	<0.04
3'46-PENTACHLOROBIPHENYL	<0.04
RENE UG/L	<0.04
ENDOSULFAN I UG/L	<0.07
HLORDANE (ALPHA) UG/L	<0.07
LORDANE(TRANS NONACHLOR)UG/L	<0.05
PROPAMIDE UG/L	<0.05
BUTACHLOR UG/L	<0.06
4,4' - DDD UG/L	<0.08
4' - DDT UG/L	<0.07
4' - DDE UG/L	<0.08
ELDRIN UG/L	<0.07
22'44'56'HEXACHLOROBIPHENYL	<0.05
RICYCAZOLE UG/L	<0.08
IDRIN UG/L	<0.17
ILOROBENZILATE UG/L	<0.04
PROMETRYN UG/L	<0.14
ENDOSULFAN II UG/L	<0.08
IDRIN ALDEHYDE UG/L	<0.05
IDOSULFAN SULFATE UG/L	<0.06
XAZINONE UG/L	<0.09
DI(2-ETHYLHEXYL)ADIPATE UG/L	<0.07
ITYLBENZYLPHTHALATE UG/L	<0.15
NZ[A]ANTHRACENE UG/L	<0.07
RYSENE UG/L	<0.09
22'33'44'6 HEPTACHLOROBIPHENYL	<0.05
METHOXYCHLOR UG/L	<0.07
2'33'45'66'OCTACHLOROBIPHENYL	<0.06
(2-ETHYLHEXYL)PHTHALATE UG/L	<0.78
NARIMOL UG/L	<0.04
CIS-PERMETHRIN UG/L	<0.06
ANS-PERMETHRIN UG/L	<0.06
NZO[B]FLUORANTHENE UG/L	<0.07
NZO[K]FLUORANTHENE UG/L	<0.09
BENZO[A]PYRENE UG/L	<0.05
LUIDONE UG/L	<0.06
IDENO[1,2,3,C,D]PYRENE UG/L	<0.05
BENZ[A,H]ANTHRACENE UG/L	<0.08
BENZO[G,H,I]PERYLENE UG/L	<0.08
DESETHYLATRAZINE UG/L	<1.00
ESISOPROPYLATRAZINE UG/L	<1.00
HLORDANE (TECHNICAL) UG/L	<0.70
OCHLOR 1016 UG/L	<0.08
AROCHLOR 1221 UG/L	<5.0
ROCHLOR 1232 UG/L	<0.50
ROCHLOR 1242 UG/L	<0.30

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

ATE : 07/26/98 TIME: 1020 NYS WELL NO: S-20566
DATA ID : Q RUNTIME (HRS): 24.0 SOURCE: RAW
OLLECTION PT.: TREATMENT :

ROCHLOR 1248 UG/L	<0.10
AROCHLOR 1254 UG/L	<0.10
AROCHLOR 1260 UG/L	<0.20

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

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THYLENE CHLORIDE UG/L	<0.5
1,1-DICHLOROETHYLENE UG/L	<0.5
1,1-DICHLOROETHANE UG/L	<0.5
ANS-1,2-DICHLOROETHELEN UG/L	<0.5
S-1,2-DICHLOROETHENE UG/L	<0.5
LOROFORM UG/L	<0.5
1,2-DICHLOROETHANE UG/L	<0.5
1,1-TRICHLOROETHANE UG/L	<0.5
RBON TETRACHLORIDE UG/L	<0.5
OMODICHLOROMETHANE UG/L	<0.5
1,2-DICHLOROPROPANE UG/L	<0.5
CIS-1,3-DICHLOROPROPENE UG/L	<0.5
ICHLOROETHYLENE UG/L	<0.5
1,2-TRICHLOROETHANE UG/L	<0.5
LORODIBROMOMETHANE UG/L	<0.5
TRANS-1,3-DICHLOROPROPENE UG/L	<0.5
OMOFORM UG/L	<0.5
TRACHLOROETHYLENE UG/L	<0.5
1,2,2-TETRACHLOROETHANE UG/L	<0.5
CHLOROBENZENE UG/L	<0.5
VINYL CHLORIDE UG/L	<0.5
BROMOMETHANE UG/L	<0.5
OMOCHLOROMETHANE UG/L	<0.5
ROMOMETHANE UG/L	<0.5
CHLOROETHANE UG/L	<0.5
LOROMETHANE UG/L	<0.5
CHLORODIFLUOROMETHANE UG/L	<0.5
,3-DICHLOROPROPANE UG/L	<0.5
2,2-DICHLOROPROPANE UG/L	<0.5
1.1-DICHLOROPROPENE UG/L	<0.5
1,1,2-TETRACHLOROETHANE UG/L	<0.5
ICHLOROFLUOROMETHANE UG/L	<0.5
1,2,3-TRICHLOROPROPANE UG/L	<0.5
1,1,2TRICHLOROTRIFLUOROETHANE	<0.5
BROMO-2-CHLOROETHANE	<0.5
,2-DIBROMOETHANE UG/L	<0.01
1,2DIBROMO-3CHLOROPROPANE UG/L	<0.01
NZENE UG/L	<0.5
LUENE UG/L	<0.5
ETHYLBENZENE UG/L	<0.5
O-XYLENE UG/L	<0.5
4-DICHLOROBENZENE UG/L	<0.5
3-DICHLOROBENZENE UG/L	<0.5
,2-DICHLOROBENZENE UG/L	<0.5
BROMOBENZENE UG/L	<0.5
-BUTYLBENZENE UG/L	<0.5
EC-BUTYLBENZENE UG/L	<0.5

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

TE : 08/28/99 TIME: 0800 NYS WELL NO: S-71038
DATA ID : RUNTIME (HRS): 1.0 SOURCE: RAW
LLECTION PT.: TREATMENT :

RT-BUTYLBENZENE UG/L	<0.5
CHLOROTOLUENE UG/L	<0.5
4-CHLOROTOLUENE UG/L	<0.5
XACHLOROBUTADIENE UG/L	<0.5
OPROPYLBENZENE UG/L	<0.5
ISOPROPYLTOLUENE UG/L	<0.5
NAPHTHALENE UG/L	<0.5
PROPYLBENZENE UG/L	<0.5
YRENE UG/L	<0.5
2,3-TRICHLOROBENZENE UG/L	<0.5
1,2,4-TRICHLOROBENZENE UG/L	<0.5
1 2,4-TRIMETHYLBENZENE UG/L	<0.5
3,5-TRIMETHYLBENZENE UG/L	<0.5
RT BUTYL METHYL ETHER UG/L	<0.5
BUTANONE (MEK) UG/L	<6.0
TETRAHYDROFURAN UG/L	<6.0
M XYLENE UG/L	<0.5
2,4,5 - TETRAMETHYLBENZENE	<0.5
BUTANOL	<0.5

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

ATE : 07/30/99 TIME: 1030 NYS WELL NO: S-71038
DATA ID : Q RUNTIME (HRS): 19.0 SOURCE: RAW
LLECTION PT.: TREATMENT :

OTAL COLIFORM MF/100ML	<1.
CYANIDE UG/L	<5.

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

TE : 07/30/99 TIME: 1031 NYS WELL NO: S-71038
DATA ID : Q RUNTIME (HRS): 13.0 SOURCE: RAW
OLLECTION PT.: TREATMENT :

RCHLORATE UG/L <3.0

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

ITHIUM UG/L	<1.0
BERYLLIUM UG/L	<0.3
ALUMINUM MG/L	<0.020
ILICON MG/L	5.1
ITANIUM UG/L	<10.0
OTAL CHROMIUM UG/L	<10.0
MANGANESE MG/L	0.01
RON MG/L	0.28
ICKEL UG/L	<0.5
OPPER MG/L	<0.02
ZINC MG/L	<0.02
RSENIC UG/L	<5.0
ELENIUM UG/L	<2.0
ILVER UG/L	<2.5
ADMIUM UG/L	<0.5
TIN UG/L	<0.5
NTIMONY UG/L	<0.4
ARIUM UG/L	<100.
ERCURY UG/L	<0.2
THALLIUM UG/L	<0.3
EAD UG/L	<1.0
OTAL PHOSPHATE MG/L	0.11
LUORIDE MG/L	<0.2
HLORIDE MG/L	3.4
NITRITE MG/L	<0.10
ROMIDE MG/L	<0.05
ITRATE MG/L	<0.10
RTHO PHOSPHATE MG/L	<0.10
SULFATE MG/L	4.9
URFACTANTS MG/L	<0.02
OLOR-UNITS	5.
URBIDITY NT UNITS	0.66
PH	6.1
SPECIFIC CONDUCTANCE UMHO/CM	36.
OTAL HARDNESS MG/L	10.8
OTAL ALKALINITY MG/L	7.2
REE AMMONIA MG/L	<0.01
SODIUM MG/L	2.7
OTASSIUM MG/L	0.47
ALCIUM MG/L	1.0
AGNESIUM MG/L	1.14
CATION SUM ME/L	0.27
ANION SUM ME/L	0.34
O2 CALC. MG/L	11.1
OTAL DISSOLVED SOLIDS MG/L	27.
d SATURATION	10.7
LANGELIER SATURATION INDEX	-4.6
GGRESSIVENESS INDEX	7.4

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

TE : 01/29/99 TIME: 0400 NYS WELL NO: S-71038
DATA ID : Q RUNTIME (HRS): 1.0 SOURCE: RAW
COLLECTION PT.: TREATMENT :

TAL COLIFORM MF/100ML	<1.
CYANIDE UG/L	<5.
DICARB SULFOXIDE UG/L	<0.5
DICARB SULFONE UG/L	<0.5
OXAMYL UG/L	<0.5
METHOMYL UG/L	<0.5
HYDROXYCARBOFURAN UG/L	<0.5
DICARB UG/L	<0.5
CARBOFURAN UG/L	<0.5
CARBARYL UG/L	<0.5
NAPHTHOL UG/L	<0.5
OPOXUR UG/L	<0.5
METHIOCARB UG/L	<0.5
METHYLENE CHLORIDE UG/L	<0.5
1-DICHLOROETHYLENE UG/L	<0.5
1-DICHLOROETHANE UG/L	<0.5
TRANS-1,2-DICHLOROETHELEN UG/L	<0.5
CIS-1,2-DICHLOROETHENE UG/L	<0.5
ILOROFORM UG/L	<0.5
2-DICHLOROETHANE UG/L	<0.5
1,1,1-TRICHLOROETHANE UG/L	<0.5
CARBON TETRACHLORIDE UG/L	<0.5
BROMODICHLOROMETHANE UG/L	<0.5
2-DICHLOROPROPANE UG/L	<0.5
S-1,3-DICHLOROPROPENE UG/L	<0.5
TRICHLOROETHYLENE UG/L	<0.5
1 1,2-TRICHLOROETHANE UG/L	<0.5
ILORODIBROMOMETHANE UG/L	<0.5
ANS-1,3-DICHLOROPROPENE UG/L	<0.5
BROMOFORM UG/L	<0.5
TETRACHLOROETHYLENE UG/L	<0.5
1,2,2-TETRACHLOROETHANE UG/L	<0.5
ILOROBENZENE UG/L	<0.5
NYL CHLORIDE UG/L	<0.5
DIBROMOMETHANE UG/L	<0.5
BROMOCHLOROMETHANE UG/L	<0.5
OMOMETHANE UG/L	<0.5
ILOROETHANE UG/L	<0.5
CHLOROMETHANE UG/L	<0.5
RODIFLUOROMETHANE UG/L	<0.5
CHLOROPROPANE UG/L	<0.5
2-DICHLOROPROPANE UG/L	<0.5
1,1-DICHLOROPROPENE UG/L	<0.5
1,1,1,2-TETRACHLOROETHANE UG/L	<0.5
TRICHLOROFLUOROMETHANE UG/L	<0.5
1,2,3-TRICHLOROPROPANE UG/L	<0.5
1,2TRICHLOROTRIFLUOROETHANE	<0.5
1-BROMO-2-CHLOROETHANE	<0.5

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

TE : 07/10/97 TIME: 0600 NYS WELL NO: S-71038
DATA ID : Q RUNTIME (HRS): 17.0 SOURCE: RAW
COLLECTION PT.: TREATMENT :

DICARB SULFONE UG/L	<0.5
OXAMYL UG/L	<0.5
METHOMYL UG/L	<0.5
HYDROXYCARBOFURAN UG/L	<0.5
DICARB UG/L	<0.5
ARBOFURAN UG/L	<0.5
CARBARYL UG/L	<0.5
1-NAPHTHOL UG/L	<0.5
OPOXUR UG/L	<0.5
THIOCARB UG/L	<0.5
BIS(2-ETHYLHEXYL)ADIPATE UG/L	<0.60
S(2-ETHYLHEXYL)PHTHLATE	<0.60
ICAMBA UG/L	<0.28
2,4-D UG/L	<0.28
ENTACHLOROPHENOL UG/L	<0.04
LVEX(2,4,5-TP) UG/L	<0.20
NOSEB UG/L	<0.20
PICLORAM UG/L	<0.10
TETRACHLOROTEREPHTHALIC ACID	<4.0
ENTAZON UG/L	<0.63
ALAPON UG/L	<1.0
YPHOSATE UG/L	<6.0
QUAT UG/L	<0.44
PARAQUAT UG/L	<0.80
ENANTHRENE UG/L	<0.150
RENE UG/L	<0.030
,2-BENZANTHRACENE UG/L	<0.015
CHRYSENE UG/L	<0.045
ENZO(B)FLUORANTHENE UG/L	<0.060
ENZO(K)FLUORANTHEN UG/L	<0.030
ENZO-A-PYRENE UG/L	<0.015
1,2,5,6-DIBENZATHRACENE UG/L	<0.015

NOTE: "<" SYMBOL MEANS 'LESS THAN' INDICATING NO DETECTION.

2

ROUX ASSOCIATES INC
1377 MOTOR PARKWAY
ISLANDIA, NEW YORK 11788
TEL 516 232-2600 FAX 516 232-9898

ROUX

FACSIMILE TRANSMITTAL SHEET

To: Mr. Richard Smith — Fax No. (860) 275-8299
Robinson & Cole — Phone No. " " 8218
Project No.

Sent by: Charlie McGuckin — Date: 12/9/97 — Time:

Message: Attached please find analytical summary tables for the Bayshore Site investigation, A preliminary cost table for soil remediation and a sketch of the sampling locations. Groundwater remediation is not expected to be required although monitoring is likely. Please forward to Walter Riopel at Fax (904) 766-4264 Unit # 707
PH " 924-0561

TOTAL NUMBER OF PAGES SENT INCLUDING TRANSMITTAL SHEET 11

IF ALL PAGES ARE NOT RECEIVED, PLEASE CALL US AS SOON AS POSSIBLE

PHONE: (516) 232-2600 *FAX: (516) 232-9898*

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- Constructed Wetlands
- Natural Attenuation/Intrinsic Remediation
- Bioremediation
- Risk Based Corrective Action (RBCA)
- Voluntary Cleanup Programs
- Site Redevelopment/Brownfields

Ground-Water and Soil Investigations
- Phase I/Phase II Investigations
- CERCLA RI & RCRA RFI
- Ground-Water Modeling
- Geophysical Investigations

Litigation Support
- Expert Testimony/Technical Presentations
- Contaminant Source Identification
- Remedial Action Assessments
- Cost Allocation Studies

Remedial Engineering & Design
- CERCLA FS & RCRA CMS
- Conceptual Design/Engineering Design
- Construction Management

Human Health & Environmental Risk Assessments
- CERCLA & RCRA
- Property Transfer Assessments
- Litigation Support/Expert Testimony

Environmental Compliance Services
- Pre-Audit Planning/Audit Evaluations
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Occupational Health & Safety
- Industrial Hygiene Surveys
- Health & Safety Audits
- Professional Training Programs
- Hazard Communications/Education

Thank you.

Table 1. Summary of Volatile Organic Compounds Detected in Soil at 38 Homan Avenue, Bay Shore, New York.

Parameter (Concentrations in µg/kg)	NYSDEC STARS (µg/kg)	Sample Designation: SB-1 Sample Depth (ft bls): 0-2.5 Sample Date: 12/1/97	SB-2 0-2 12/1/97	SB-3 0-2 12/1/97	SB-4 0-2.5 12/1/97	SB-5 0-1.5 12/1/97	SB-6 0-1.5 12/1/97
Benzene	14	1.2 U	1.1 U	1.1 U	5.8 U	1.1 U	1.1 U
Toluene	100	1.2 U	1.1 U	1.1 U	5.8 U	1.1 U	1.1 U
Ethylbenzene	100	1.2 U	1.1 U	1.1 U	40	1.1 U	1.1 U
M/P-Xylenes	100	2.3 U	2.2 U	2.3 U	12 U	2.3 U	2.3 U
O-Xylene	100	1.2 U	1.1 U	1.1 U	5.8 U	1.7	1.1 U
1,2,4-Trimethylbenzene	100	1.2 U	1.1 U	1.1 U	120	11	1.1 U
1,3,5-Trimethylbenzene	100	2.3 U	2.2 U	2.3 U	12 U	2.3 U	2.3 U
Isopropylbenzene	100	1.2 U	1.1 U	1.1 U	7.0	1.1 U	1.1 U
n-Butylbenzene	100	1.2 U	1.1 U	1.1 U	230	39	1.1 U
n-Propylbenzene	100	1.2 U	1.1 U	1.2 U	120	17	1.1 U
p-Isopropytoluene	100	1.2 U	1.1 U	1.1 U	82	13	1.1 U
sec-Butylbenzene	100	1.2 U	1.1 U	1.1 U	45	15	1.1 U
tert-Butylbenzene	100	1.2 U	1.1 U	1.1 U	5.8 U	9.8	1.1 U

Notes:

U - Indicates compound was analyzed for but not detected

NYSDEC STARS - New York State Department of Environmental Conservation Spill Technology and Remediation Series

µg/kg - Micrograms per kilogram

ft bls - Feet below land surface

Bold - Data highlighted in bold represent results detected above the NYSDEC STARS

Table 2. Summary of Semivolatile Organic Compounds Detected in Soil at 38 Homan Avenue, New York.

Parameter (Concentrations in µg/kg)	STARS Guidance Values	Sample Designation: SB-1 Sample Depth: 0-2.5 Sample Date: 12/1/97	SB-2 0-2 12/1/97	SB-3 0-2 12/1/97	SB-4 0-2.5 12/1/97	SB-5 0-1.5 12/1/97	SB-6 0-1.5 12/1/97
Naphthalene	200	780 U	720 U	770 U	3,900 U	380 U	760 U
Acenaphthene	400	780 U	720 U	770 U	3,900 U	380 U	760 U
Fluorene	1,000	780 U	720 U	770 U	4,000	380 U	760 U
Phenanthrene	1,000	780 U	720 U	770 U	6,700	380 U	760 U
Anthracene	1,000	780 U	720 U	770 U	3,900 U	380 U	760 U
Fluoranthene	1,000	780 U	720 U	770 U	3,900 U	380 U	760 U
Pyrene	1,000	780 U	720 U	770 U	3,900 U	380 U	760 U
Benzo(a)anthracene	0.04	780 U	720 U	770 U	3,900 U	380 U	760 U
Chrysene	0.04	780 U	720 U	770 U	3,900 U	380 U	760 U
Benzo(b)fluoranthene	0.04	780 U	720 U	770 U	3,900 U	380 U	760 U
Benzo(k)fluoranthene	0.04	780 U	720 U	770 U	3,900 U	380 U	760 U
Benzo(a)pyrene	0.04	780 U	720 U	770 U	3,900 U	380 U	760 U
Indeno(1,2,3-cd)pyrene	0.04	780 U	720 U	770 U	3,900 U	380 U	760 U
Dibenzo(a,h)anthracene	1,000	780 U	720 U	770 U	3,900 U	380 U	760 U
Benzo(g,h,i)perylene	0.04	780 U	720 U	770 U	3,900 U	380 U	760 U

µg/kg - Micrograms per kilogram
U - Indicates that compound was not detected
NYSDEC STARS - New York State Department of Environmental Conservation Alternative Guidance Values.
Bold - Data highlighted in bold represent concentrations detected above the NYSDEC STARS.

Table 3. Summary of Total RCRA Metals Detected in Soil at 38 Homan Avenue, Bay Shore, New York.

Parameter (Concentrations in mg/kg)	RBC Residential Standards[1] (mg/kg)	Recommended Soil Cleanup Objectives[2] (mg/kg)	Sample Designation:	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6
			Sample Depth:	0-2.5	0-2	0-2	0-2.5	0-1.5	0-1.5
			Sample Date:	12/1/97	12/1/97	12/1/97	12/1/97	12/1/97	12/1/97
Arsenic	23	7.5 or SB		7.4	6.4	6.4	3.9	2.7	8.5
Barium	5,500	300 or SB		100.0 U	100.0 U	100.0 U	176.0	100.0 U	100.0 U
Cadmium	39	1 or SB		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chromium	390	10.0 or SB		10.0 U	21.7	10.0 U	10.0 U	10.0 U	10.0 U
Lead	500	SB*		124.0	432.0	971.0	450.0	147.0	602.0
Mercury	23	0.1		1.22	0.73	0.25 U	0.25 U	0.25 U	0.25 U
Selenium	390	2 or SB		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Silver	390	SB		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Copper	3,100	25 or SB		94.2	210.0	483.0	31.4	12.5	108.0
Zinc	23,000	20 or SB		109.0	875.0	101.0	258.0	18.5	166.0

mg/kg - Milligrams per kilogram
U - Indicates that compound was analyzed for but not detected
SB - Site Specific Background Concentrations
* - Background values for lead vary widely - average background values in metropolitan or suburban areas or near highways typically range from 200-500 ppm
[1] - USEPA Risk-Based Concentrations, 1995
[2] - Recommended Soil Cleanup Objective, NYSDEC, 1994
Bold - Data highlighted in bold represents concentrations detected above the Recommended Soil Cleanup Objectives or RBC for lead

Table 4. Summary of Volatile Organic Compounds Detected in Ground Water at 38 Homan Avenue, Bay Shore, New York.

	Sample Designation:	GW-1	GW-3	GW-4
	Sample Depth (ft bls):	2.5-4.0	2.0-6.0	2.6-4.0
	Sample Date:	12/1/97	12/1/97	12/1/97
Parameter (Concentrations in µg/kg)	NYSDEC STARS (µg/kg)			
Benzene	0.7	1.0 U	1.0 U	1.0 U
Toluene	5	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U
M/P-Xylenes	5	2.0 U	2.0 U	2.0 U
O-Xylene	5	1.0 U	1.0 U	3.5
1,2,4-Trimethylbenzene	5	1.0 U	1.0 U	60
1,3,5-Trimethylbenzene	5	2.0 U	2.0 U	2.0 U
Isopropylbenzene	5	1.0 U	1.0 U	8.3
n-Butylbenzene	5	13	1.0 U	64
n-Propylbenzene	5	1.0 U	1.0 U	12
p-Isopropytoluene	5	1.0 U	1.0 U	1.0 U
sec-Butylbenzene	5	1.0 U	1.0 U	4.6
tert-Butylbenzene	5	1.0 U	1.0 U	1.0 U

Notes:

U - Indicates compound was analyzed for but not detected

NYSDEC STARS - New York State Department of Environmental Conservation Spill Technology and Remediation Series

µg/L - Micrograms per liter

Bold - Data highlighted in bold represent results detected above the NYSDEC STARS

Table 5. Summary of Semivolatile Organic Compounds Detected in Groundwater at 38 Homan Avenue, New York.

Parameter (Concentrations in µg/L)	STARS Guidance Values	Sample Designation: GW-1 Sample Depth: 2.5-4.0 Sample Date: 12/1/97	GW-3 2.0-6.0 12/1/97	GW-4 2.6-4.0 12/1/97
Naphthalene	10	12 U	10 U	10 U
Acenaphthene	20	12 U	10 U	10 U
Fluorene	50	12 U	10 U	10 U
Phenanthrene	50	12 U	10 U	10 U
Anthracene	50	12 U	10 U	10 U
Fluoranthene	50	12 U	10 U	10 U
Pyrene	50	12 U	10 U	10 U
Benzo(a)anthracene	0.002	12 U	10 U	10 U
Chrysene	0.002	12 U	10 U	10 U
Benzo(b)fluoranthene	0.002	12 U	10 U	10 U
Benzo(k)fluoranthene	0.002	12 U	10 U	10 U
Benzo(a)pyrene	0.002	12 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002	12 U	10 U	10 U
Dibenzo(a,h)anthracene	50	12 U	10 U	10 U
Benzo(g,h,i)perylene	0.002	12 U	10 U	10 U

µg/L - Micrograms per liter
U - Indicates that compound was not detected
NYSDEC STARS - New York State Department of Environmental Conservation Alternative Guidance Values.

Table 6. Summary of Total RCRA Metals Detected in Ground Water at 38 Homan Avenue, Bay Shore, New York.

Parameter (Concentrations in µg/L)	NYSDEC[1] AWQC (µg/L)	Sample Designation: GW-1 Sample Date: 12/1/97	GW-1/F 12/1/97	GW-3 12/1/97	GW-4 12/1/97
Arsenic	50	**67.4**	17.3	8.0 U	8.0 U
Barium	1,000	1,000.0 U	1,000.0 U	1,000.0 U	1,000.0 U
Cadmium	10	25.0 U	25.0 U	25.0 U	25.0 U
Chromium	50	100.0 U	100.0 U	100.0 U	100.0 U
Lead	50	**600.0**	**280.0**	250.0 U	250.0 U
Mercury	2	**18.8**	**6.4**	0.50 U	0.50 U
Selenium	10	10.0 U	10.0 U	10.0 U	10.0 U
Silver	50	50.0 U	50.0 U	50.0 U	50.0 U
Copper	200	**410**	**150.0**	50.0 U	50.0 U
Zinc	300	**2,640**	**787.0**	**142.0**	77.0

µg/L - Micrograms per liter
F - Filtered sample
U - Indicates that compound was analyzed for but not detected
[1] - New York State Department of Environmental Conservation Ambient Water Quality Criteria
Bold - Data highlighted in bold represents concentrations detected above the Ambient Water Quality Criteria

Table 7. Summary of Chlorides Concentrations Detected in Ground Water at 38 Homan Avenue, Bay Shore, New York.

Sample Designation: / Sample Date:	GW-1 12/1/97	GW-2 12/1/97	GW-3 12/1/97
Classification Based on Chloride Concentration in mg/L[1]			
Fresh Groundwaters equal to or less than 250 mg/L		205	165
Class GSB Saline Groundwaters in excess of 1,000 mg/L	519		

Notes:

mg/L - Milligrams per liter

[1] - Classification defined by New York State Department of Environmental Conservation Ambient Water Quality Criteria

Table 8. Summary of Total Dissolved Solids Detected in Ground Water at 38 Homan Avenue, Bay Shore, New York.

Sample Designation:	GW-1	GW-2	GW-3
Sample Date:	12/1/97	12/1/97	12/1/97
Classification Based on Total Dissolved Solids Concentration in mg/L [1]			
Fresh Groundwaters equal to or less than 1,000 mg/L		520	460
Class GSB Saline Groundwaters in excess of 2,000 mg/L	1,700		

Notes:

mg/L - Milligrams per liter

[1] - Classification defined by New York State Department of Environmental Conservation Ambient Water Quality Criteria

Table 9. Preliminary Costs for Gibson and Cushman Site Remediation, 38 Homan Avenue, Bay Shore, New York.

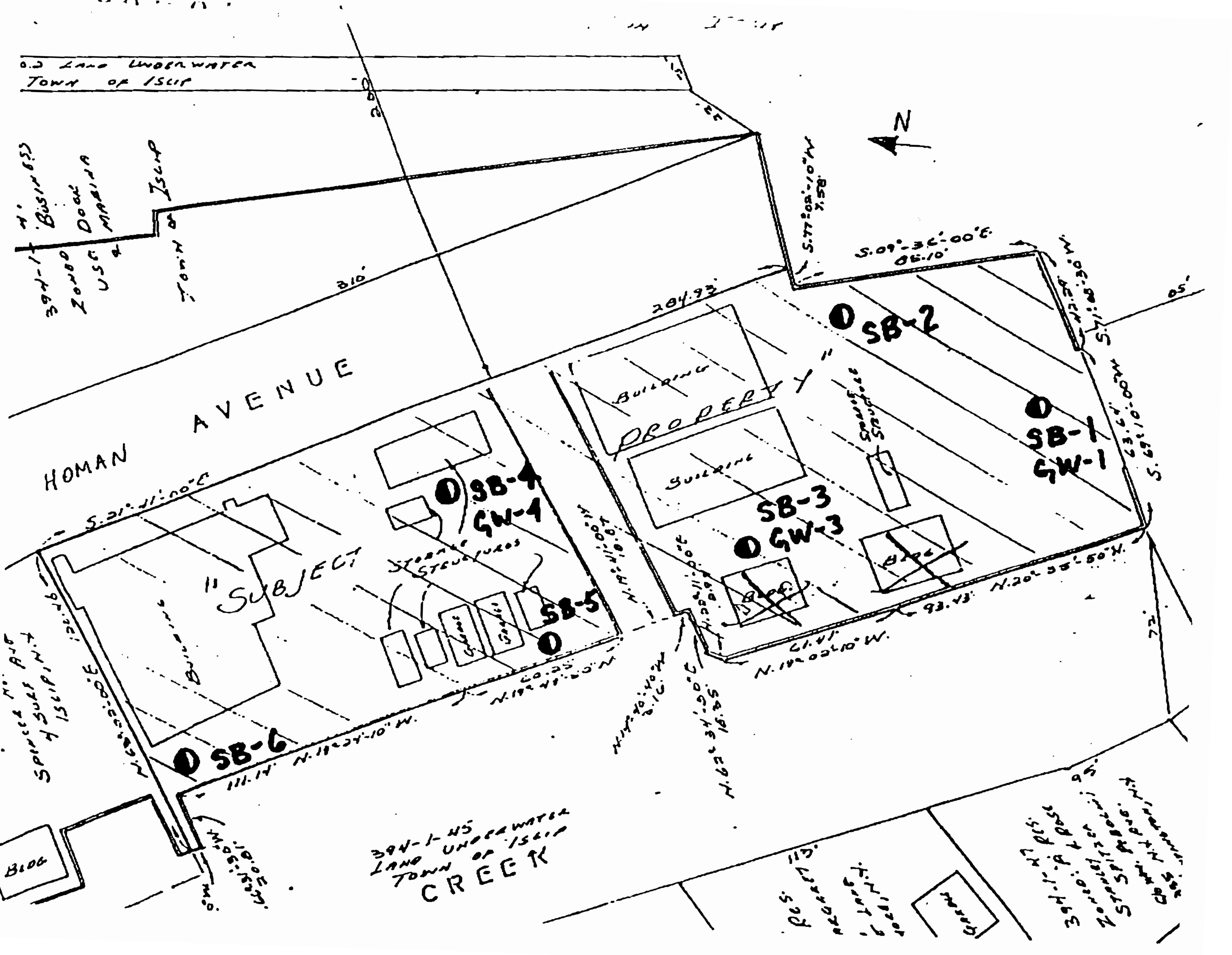
Description	Units	Unit Cost ($)	Quantity	Total Cost ($)
CAPITAL COSTS[1]				
Permitting[2]	LS	$6,000	1	$6,000
Mobilization/Demobilization	LS	$3,180	1	$3,180
Delineation Borings and Sampling	LS	$6,500	1	$6,500
Soil Excavation[3]	CY	$5	474	$2,370
Post Excavation Sampling	LS	$4,000	1	$4,000
Disposal Sampling	EACH	$800	4	$3,200
T&D for Hazardous for Lead Soils[4]	TON	$200	462	$92,440
T&D for Petroleum Contaminated Soils[4]	TON	$60	154	$9,240
Backfill and Compaction	CY	$20	474	$9,480
SUBTOTAL CAPITAL COST				$136,410
ENGINEERING				$13,600
CONSTRUCTION MANAGEMENT				$6,800
CONTINGENCY (15%)				$20,500
TOTAL CAPITAL COST				$177,310

Notes:

1. Cost estimate assumes unrestricted Facility access during the remediation work.
2. Costs assume Army Corps and local construction permitting will be required.
3. Costs assume no dewatering will be required.
4. Cost estimate assumes soil to be stabilized, as necessary, and disposed at a landfill.

Legend:

LS - Lump Sum
CY - Cubic Yard
T&D - Transportation and Disposal


N
HOMAN AVENUE
"SUBJECT"
"PROPERTY"
SB-1
GW-1
SB-2
SB-3
GW-3
SB-4
GW-4
SB-5
SB-6
Building
Storage Structures
Storage Structure
BLDG
Garage
CREEK
394-1-45 Land Underwater Town of Islip
Land Underwater Town of Islip
Town of Islip
284.93'
310'
111.14'
93.43'
72'
95'
50'

ENVIRONMENTAL CONSULTING & MANAGEMENT
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FACSIMILE TRANSMITTAL SHEET

To: Richard Smith
Robinson & Cole

Fax No. (860) 275-8299
Phone No. " " 8218
Project No. _____

Sent by: Charlie McGuckin

Date: 12/17/97 Time: ____ am pm

☐ For your information
☑ For your review and comment
☐ For your approval
☐ For your action
☐ Please telephone upon receipt
☐ As you requested

Message: TCLP Analysis for soil samples at Bayshore Property. One location SB-4 exceeds Haz Waste level. This will reduce disposal cost from the preliminary cost table previously faxed to you by $40,000 to 60,000. Previous cost estimate assumed 3 areas would require Haz Waste disposal.

TOTAL NUMBER OF PAGES SENT INCLUDING TRANSMITTAL SHEET 2

IF ALL PAGES ARE NOT RECEIVED, PLEASE CALL US AS SOON AS POSSIBLE

PHONE: (516) 232-2600
FAX: (516) 232-9898

Thank you.

Table 3A. Summary of TCLP Analysis of Metals Detected in Soil at 30 Florida Avenue, ..., Sho... ...w Y

Sample Designation:	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6
Sample Depth:	0-2.5	0-2	0-2	0-2.5	0-1.5	0-1.5
Sample Date:	12/1/97	12/1/97	12/1/97	12/1/97	12/1/97	12/1/97
Parameter (Concentrations in mg/L)	Hazardous Waste Regulatory Level [1] (mg/L)					
Lead	5.0	0.32	0.81	0.22 B	77.0	0.12 B	0.76
Mercury	0.2	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U

mg/L - Milligrams per liter
U - Indicates that compound was analyzed for but not detected
B - Indicates that compound was detected in trip blank
[1] - Defined in New York State Department of Environmental Conservation Spill Technology and Remediation Series
Bold - Data highlighted in bold represents concentrations detected above the Hazardous Waste Regulatory Level

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December 23, 1997

Richard Smith, Esq.
Robinson & Cole
One Commercial Plaza
Hartford, Connecticut 06103-3597

Re: Regulatory Recommendation at Gibson & Cushman Property
38 Homan Ave., Bay Shore, New York

Dear Mr. Smith:

The purpose of this letter is to review and summarize the course of action we discussed with Walter Riopel last night regarding how to proceed at the Gibson & Cushman property at 38 Homan Avenue in Bay Shore. Our recommendations are based on the results from six soil samples and three groundwater samples that indicate the presence of several metals and hydrocarbon compounds at elevated concentrations in soil and groundwater. Specifically, lead was found above New York State Department of Environmental Conservation (NYSDEC) soil cleanup guidelines in samples collected from the former drum storage area, the former diesel fuel storage tank area and the north end of the site. Additionally copper and zinc were detected at marginally elevated concentrations in five of the six samples and mercury was found at elevated concentrations in two samples. The groundwater sample from the south end of the site was found to contain lead, mercury and zinc above NYSDEC ambient water quality criteria.

Based on the presence of contaminants at concentrations that must be resolved prior to completing the transfer of the site to Jay Cashman Inc., Roux Associates recommends that an application be submitted to NYSDEC for including the site in the Voluntary Cleanup Program. This program which has been in existence for about 18 months and is designed to expedite and facilitate the transfer of industrial property in New York State. To proceed with this program, the following sequence would occur:

1. Complete the delineation and characterization of soil contamination.

2. Using Risk Based Corrective Action (RBCA) procedures and Cashman's intended use of the site, develop a remedial plan. It is anticipated that this will only consist of limited "hot spot" excavation and that most of the marginally elevated compounds will be left in place based on the results of the RBCA evaluation.
3. Meet with NYSDEC to review the completed investigation and discuss the Remedial Plan.
4. Complete a Voluntary Cleanup Plan Application and negotiate a Voluntary Cleanup Plan Agreement. Either the buyer or the seller may chose to sign the Agreement, which is a legally binding document that obligates the signer to complete the agreed upon course of action.
5. Following receipt of Department approval of the Remedial Plan the plan would be implemented and then documented in a final report for submission to NYSDEC.
6. NYSDEC will issue a "no further action" letter following successful completion of all items contained in the Voluntary Cleanup Plan Agreement.

Without revealing the name or the location of the site, we had a discussion yesterday with Bob Becherer who is responsible for Voluntary Cleanup Plan projects in NYSDEC Region 1. He felt that from start to finish this process could be expected to take six to nine months. He also confirmed that we could expect a more favorable remedial agreement than if the site data were simply compared to the appropriate NYSDEC soil guidelines. He indicated that he was available and interested in meeting with us to review the situation at the site and that approximately three months would most likely be necessary to receive Department approval of the Remedial Plan.

Roux Associates believes that working within the Voluntary Cleanup Program offers Gibson & Cushman several advantages:

- Lowest investigation and remediation cost - By completing the delineation prior to getting involved with the Department work plans, elaborate QA/QC sample protocols, meetings and review time are eliminated. Remedial costs are minimized because the Voluntary Cleanup program takes into account future use of the site and realistic exposure scenarios when determining remedial cleanup goals.

- Expedited project completion - There is only one round of NYSDEC review during the review of the remedial plan compared to the traditional approach that includes separate review periods for the investigatory work plan, the results of the investigation, and the remedial work plan. In both cases a final review of the report documenting the remediation is necessary prior to issuance of a "no further action" letter.
- Elimination of long term environmental liability - By formally entering the Voluntary Cleanup Program Gibson & Cushman is assured of an agency-approved remedial plan being implemented. This is the most efficient method of resolving environmental issues at the site and eliminating any ongoing exposure after the site is transferred.

Roux Associates is available to complete the delineation of the soil hot spots after January 2, 1997. Please do not hesitate to contact us relative to regulatory alternatives or completion of the investigation.

Very truly yours,

ROUX ASSOCIATES, INC.

Charles J. McGuckin, P.E.
Senior Engineer

Craig A. Werle, P.G.
Principal Hydrogeologist

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January 13, 1998

Robert Melvin, Esq.
Robinson & Cole LLP
One Commercial Plaza
Hartford, Connecticut 06103-3597

Re: 38 Homan Avenue Property
Bayshore, New York

Dear Mr. Melvin:

As we discussed during our conference call with Mr. Walter Riopel of Gibson & Cushman on January 6, 1998, provided below is a chronological list of tasks which Roux Associates, Inc. anticipates will be required to remediate the above mentioned site. A brief description of the scope of work for each task is provided. The list includes three documents to be submitted to Jay Cashman, Inc., with copies to Carroad Family Partners. The three deliverables are the Delineation Work Plan, the Remedial Excavation Plan and the Completion of Remediation Report. The estimated completion schedule for each deliverable item has been provided.

Task 1 - Delineation Work Plan
Additional soil delineation is recommended to avoid delays and re-mobilization and over excavation costs during the implementation of soil excavation activities. This work plan will identify the scope of work required to further delineate the extent of soil contamination on site. We anticipate that 12 to 16 additional shallow soil borings (i.e., from zero to two feet deep) will be required in four areas where soil contamination was identified during the initial investigation. These areas are in the vicinity of soil borings SB-1, SB-3, SB-4 and SB-6 (Figure 1). The work plan will identify the area specific compounds to be field screened and/or laboratory analyzed. Applicable waste characteristics testing requirements will also be determined in order to identify the most cost effective soil disposal method.

This task can be completed by February 6, 1997 assuming a notice to proceed is issued by January 16, 1998.

Task 2 - Delineation Investigation
The delineation of the contaminated areas on-site will consist of two days of soil sampling activities as described above. A standard turn-around time for laboratory analysis of two weeks is assumed to be acceptable.

Task 3 - Remedial Excavation Plan
Based on the results of the delineation investigation, a remedial excavation plan will be prepared. The remedial objectives of the remedial excavation plan will be to remediate the site in conformance with the following New York State Department of Environmental Conservation (NYSDEC) guidelines:

- STARS Memo #1 Petroleum-Contaminated Soil Guidance Policy, August 1992 (applicable guidance values for petroleum-contaminated soils only); and
- TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels, January 24, 1994 (applicable recommended soil cleanup objectives for metals-contaminated soils only).

The plan will include a site map identifying the limits of excavation, a staging area (if necessary) and placement of erosion control measures. Requirements for coordination of remedial work with on-going dredging company maintenance activities will be identified. The plan will include composite waste characteristic sampling (as required), post excavation sampling requirements for soil and backfill specifications. Requirements for proper soil disposal documentation will be clearly defined for the contractor. The plan could be prepared as a bid document for competitive bidding by selected contractors if required.

The Remedial Excavation Plan could be completed approximately eight weeks after approval of the Delineation Work Plan.

Task 4 - Permitting
Depending upon the quantity of soil to be excavated and proximity to surface water in the vicinity of the boat ramp, local permitting with the Town of Islip may be required. Permitting with the Army Corps of Engineers is not expected to be required for work within the bulkhead on-site, however this would require confirmation.

Task 5 - Soil Excavation and Post Excavation Sampling
Soil excavation will be performed in accordance with the Remedial Excavation Plan. Excavation activities are expected to require less than one week contingent upon coordination of relocation of dredging company equipment. Post excavation sampling will be performed immediately following excavation work and standard laboratory turn-around time is assumed. If requested, Roux Associates, Inc. would provide project oversight onsite to monitor all excavation activities and verify conformance with plan requirements.

Task 6 - Completion of Remediation Report
The remedial activities will be summarized in a final report concluding that the work was performed in accordance with the Remedial Excavation Plan and meeting the specified remedial objectives. Proper Documentation of all waste disposal activities will be provided. It is assumed that the report will not be submitted to the NYSDEC.

The Completion of Remediation Report could be completed approximately ten weeks after approval of the Remedial Excavation Plan, dependent upon permitting requirements.

Please do not hesitate to contact us if you have any questions.

Sincerely,

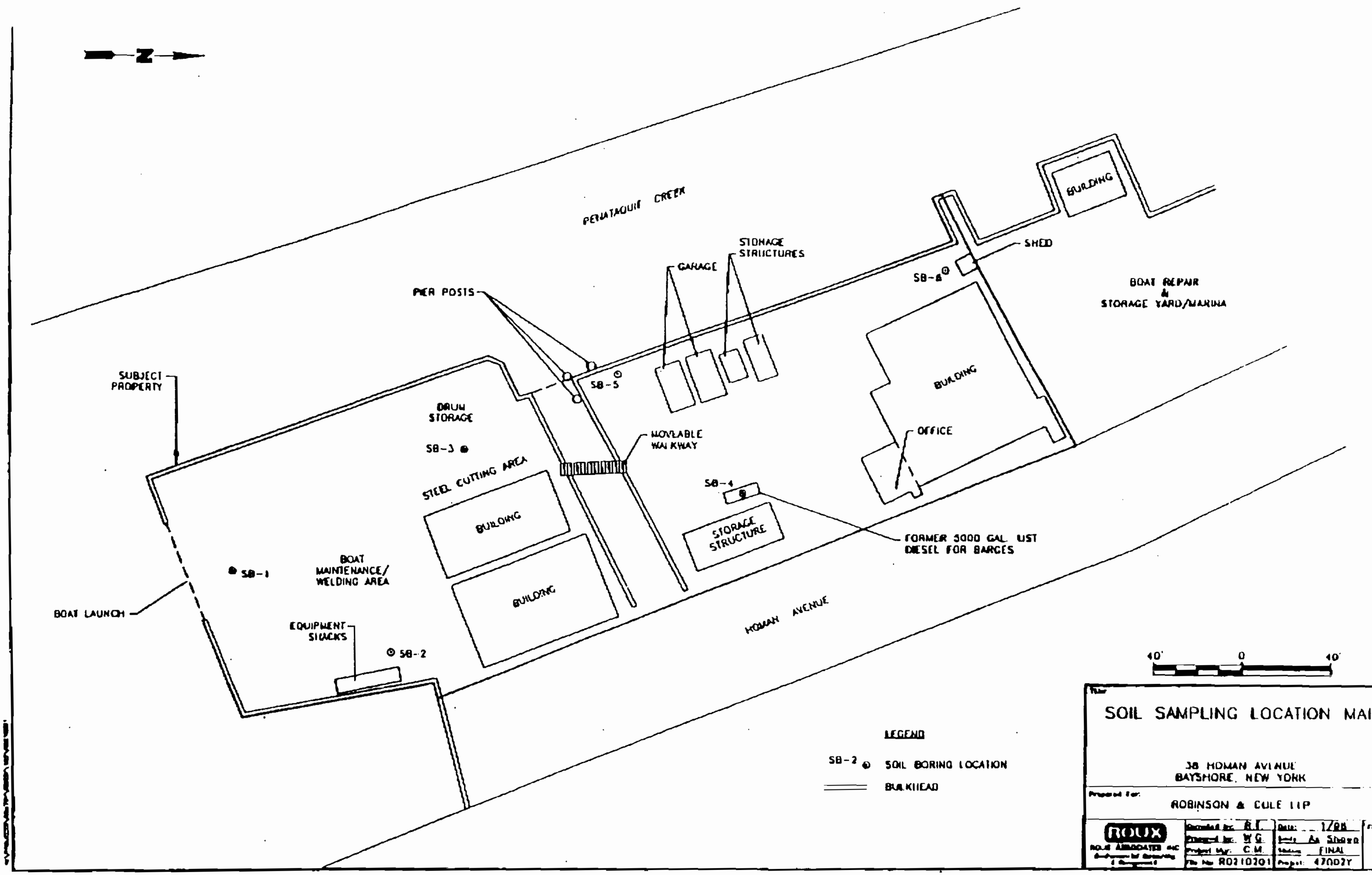
ROUX ASSOCIATES, INC.

Charles J. McGuckin

Charles J. McGuckin, P.E.
Senior Engineer

Craig A. Werle

Craig A. Werle, P.G.
Principal Hydrogeologist



SOIL SAMPLING LOCATION MAP

38 HOMAN AVENUE
BAYSHORE, NEW YORK

Prepared for:
ROBINSON & COLE LLP

ROUX ASSOCIATES INC	Compiled by: R.T.	Date: 1/98
	Prepared by: W.G.	Scale: As Shown
	Project Mgr: C.M.	Status: FINAL
	File No: R0210201	Project: 47002Y

1

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February 27, 1998

Mr. Robert S. Melvin
Robinson & Cole LLP
One Commercial Plaza
280 Trumball Street
Hartford, Connecticut 06103-3597

Re: Summary Report for the Limited Phase II Investigation
at the Gibson & Cushman Property, Bayshore, New York

Dear Mr. Melvin:

This letter report presents the findings of Roux Associates' limited phase II investigation at the Gibson & Cushman Property (Site), located at 38 Homan Avenue, Bayshore, New York. The field investigation was conducted on December 2, 1997, based on Roux Associates' November 21, 1997 proposal. During the field investigation, Roux Associates' personnel were accompanied by Mr. Walter Riopel of Gibson & Cushman. Mr. Nick Mucci of Jay Cashman Inc. was also present on site to observe the investigation. The objective of the investigation was to identify impacts to soil and/or ground water associated with areas of potential concern (AOPCs) at the Site. Based on Roux Associates' site walk on November 19, 1997, four AOPCs were initially identified which included: 1) the welding area, 2) the steel cutting and drum storage area, 3) the former 5,000 gallon aboveground diesel fuel storage tank, and 4) the former barge fueling area.

Scope of Work

Roux Associates used a Geoprobe to collect soil samples at six locations at the Site. Four of the locations were in the proximity of the AOPCs and two additional locations (i.e., SB-2 and SB-6 were selected to be representative of background conditions. Ground-water samples were collected at three of the six locations. The three ground-water locations were targeted at AOPCs and spatially representative of site conditions. The sample locations in relation to the AOPCs and on-site structures are shown in Figure 1.

Soil samples were collected continuously, using a Geoprobe direct-push drill rig for locations SB-1, SB-2, SB-3 and SB-4 and by hand auger method for locations SB-5 and SB-6; to a total depth of 4-feet below ground surface (bgs). Soils were screened in the field for physical signs of impact (e.g., staining, odor, etc.). Based on field screening observations, soil above the water table which was most notably impacted at each location was collected for laboratory analysis.

For each ground-water sampling location, a 2-foot long slotted tube placed on the end of hollow drill rods was driven 2 to 3-feet below the water table and dedicated polyethylene tubing was inserted down the hollow rods. A peristaltic pump connected to the tubing was used to extract and sample ground water. Ground water was pumped for several minutes prior to sample collection to allow for the removal of fine sediments entrained as a result of pumping, thus providing a sample which more accurately reflects ambient ground-water conditions in the aquifer.

All samples were submitted to, and analyzed by, Analab, Inc. of Edison, New Jersey. Both soil and ground-water samples were analyzed for volatile organic compounds (VOCs) by USEPA Method 8021, semi-volatile organic compounds (SVOCs) by USEPA Method 8270 and RCRA metals plus copper and zinc by USEPA Method 6010. Ground-water samples were also analyzed for chlorides and total dissolved solids (TDS). For ground-water sample GW-1, metals were analyzed using both filtered and unfiltered samples.

Results of Sampling and Analysis

Soils encountered above the water table generally consisted of fine to coarse sand with minor amounts of silt and gravel. Soils were typically dark brown to black as a result of staining and/or high content of organic matter. Beneath the water table, gray medium to coarse sand with some gravel was typically found. Petroleum odors were detected in samples SB-1, SB-4 and SB-6.

The water table at the Site was encountered at depths between 1.6 and 2.6 feet bgs. The hydraulic gradient on-site is generally flat with ground-water flow in the area to the south.

Soil analytical results for VOCs and SVOCs are summarized in Tables 1 and 2. The Laboratory Analytical Reports for all samples are provided as Attachment 1. An evaluation of these results shows that several compounds were detected above the New York State Department of Environmental Conservation Spill Technology and Remediation Series (STARS) guidance values at SB-4, the location of the former diesel fuel tank. Two SVOCs, Benzo(a)anthracene and Chrysene were detected above the guidance values for all samples except SB-6.

Soil analytical results for total metals are summarized in Table 3. Metals, most notably, Lead, Mercury, Copper and Zinc were detected in the majority of the samples. The only metal detected above the USEPA Risk Based Concentration (RBC) value was Lead, which was found in samples SB-3 and SB-6. In order to evaluate costs for potential Lead and Mercury-contaminated soil removal and disposal, Toxicity Characteristic Leaching Procedure (TCLP) analyses were performed as summarized in Table 3A. One soil sample, SB-4 was determined to be hazardous for lead.

Ground-water analytical results are summarized in Tables 4 through 8. VOCs were detected at fairly low levels, but above STARS guidance values in sample GW-4. No SVOCs were detected above guidance values.

Several metals were detected above NYSDEC Ambient Water Quality Criteria (AWQC) in unfiltered sample GW-1. For the filtered sample for this same location, GW-1/F, Lead and Zinc were again detected above the AWQC criteria.

The analyses of Chlorides and TDS indicate that the ground water beneath the Site would be classified as saline, not for potable use.

If you have any questions or require additional information, please do not hesitate to call. We welcome the opportunity to provide additional assistance should the need arise.

Respectfully submitted,

ROUX ASSOCIATES, INC.

Charles J. McGuckin, P.E.
Senior Engineer

Craig A. Werle, P.G.
Principal Hydrogeologist

Attachments

Table 1. Summary of Volatile Organic Compounds Detected in Soil at 38 Homan Avenue, Bay Shore, New York.

Parameter (Concentrations in µg/kg)	NYSDEC STARS (µg/kg)	Sample Designation: SB-1 Sample Depth (ft bls): 0-2.5 Sample Date: 12/1/97	SB-2 0-2 12/1/97	SB-3 0-2 12/1/97	SB-4 0-2.5 12/1/97	SB-5 0-1.5 12/1/97	SB-6 0-1.5 12/1/97
Benzene	14	1.2 U	1.1 U	1.1 U	5.8 U	1.1 U	1.1 U
Toluene	100	1.2 U	1.1 U	1.1 U	5.8 U	1.1 U	1.1 U
Ethylbenzene	100	1.2 U	1.1 U	1.1 U	40	1.1 U	1.1 U
M/P-Xylenes	100	2.3 U	2.2 U	2.3 U	12 U	2.3 U	2.3 U
O-Xylene	100	1.2 U	1.1 U	1.1 U	5.8 U	1.7	1.1 U
1,2,4-Trimethylbenzene	100	1.2 U	1.1 U	1.1 U	**120**	**11**	1.1 U
1,3,5-Trimethylbenzene	100	2.3 U	2.2 U	2.3 U	12 U	2.3 U	2.3 U
Isopropylbenzene	100	1.2 U	1.1 U	1.1 U	7.0	1.1 U	1.1 U
n-Butylbenzene	100	1.2 U	1.1 U	1.1 U	**230**	39	1.1 U
n-Propylbenzene	100	1.2 U	1.1 U	1.1 U	**120**	17	1.1 U
p-Isopropytoluene	100	1.2 U	1.1 U	1.1 U	**82**	13	1.1 U
sec-Butylbenzene	100	1.2 U	1.1 U	1.1 U	45	15	1.1 U
tert-Butylbenzene	100	1.2 U	1.1 U	1.1 U	5.8 U	9.8	1.1 U

Notes:

U - Indicates compound was analyzed for but not detected

NYSDEC STARS - New York State Department of Environmental Conservation Spill Technology and Remediation Series

µg/kg - Micrograms per kilogram

ft bls - Feet below land surface

Bold - Data highlighted in bold represent results detected above the NYSDEC STARS

Table 2. Summary of Semivolatile Organic Compounds Detected in Soil at 38 Homan Avenue, New York.

Parameter (Concentrations in µg/kg)	STARS Guidance Values	Sample Designation: SB-1 Sample Depth: 0-2.5 Sample Date: 12/1/97	SB-2 0-2 12/1/97	SB-3 0-2 12/1/97	SB-4 0-2.5 12/1/97	SB-5 0-1.5 12/1/97	SB-6 0-1.5 12/1/97
Naphthalene	200	390 U	360 U	380 U	3,900 U	380 U	380 U
Acenaphthene	400	390 U	360 U	380 U	**2,700 J**	380 U	380 U
Fluorene	1,000	390 U	360 U	380 U	**4,000**	380 U	380 U
Phenanthrene	1,000	390 U	110 J	380 U	**6,700**	380 U	53 J
Anthracene	1,000	390 U	360 U	380 U	3,900 U	380 U	380 U
Fluoranthene	1,000	100 J	220 J	130 J	**2,000 J**	99 J	210 J
Pyrene	1,000	210 J	360 J	180 J	**3,000 J**	90 J	250 J
Benzo(a)anthracene	0.04	**90 J**	**120 J**	**80 J**	**590 J**	**46 J**	380 U
Chrysene	0.04	**110 J**	**130 J**	**100 J**	**650 J**	**48 J**	380 U
Benzo(b)fluoranthene	0.04	390 U	360 U	380 U	3,900 U	380 U	380 U
Benzo(k)fluoranthene	0.04	390 U	360 U	380 U	3,900 U	380 U	380 U
Benzo(a)pyrene	0.04	390 U	360 U	380 U	3,900 U	380 U	380 U
Indeno(1,2,3-cd)pyrene	0.04	390 U	360 U	380 U	3,900 U	380 U	380 U
Dibenzo(a,h)anthracene	1,000	390 U	360 U	380 U	3,900 U	380 U	380 U
Benzo(g,h,i)perylene	0.04	390 U	360 U	380 U	3,900 U	380 U	380 U

µg/kg - Micrograms per kilogram
J - Indicates detected below MDL, Estimated value
U - Indicates that compound was not detected
NYSDEC STARS - New York State Department of Environmental Conservation Alternative Guidance Values.
Bold - Data highlighted in bold represent concentrations detected above the NYSDEC STARS.

Table 3. Summary of Total RCRA Metals Plus Copper and Zinc Detected in Soil at 38 Homan Avenue, Bay Shore, New York

Parameter (Concentrations in mg/kg)	RBC Residential Standards[1] (mg/kg)	Recommended Soil Cleanup Objectives[2] (mg/kg)	Sample Designation:	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6
			Sample Depth:	0-2.5	0-2	0-2	0-2.5	0-1.5	0-1.5
			Sample Date:	12/1/97	12/1/97	12/1/97	12/1/97	12/1/97	12/1/97
Arsenic	23	7.5 or SB		7.4	6.4	6.4	3.9	2.7	**8.5**
Barium	5,500	300 or SB		70 B	53 B	23 B	176.0	100.0 U	48 B
Cadmium	39	1 or SB		2.5 U	1.4 B	2.5 U	1.0 B	2.5 U	1.2 B
Chromium	390	10.0 or SB		7 B	**21.7**	10.0 U	10.0 U	10.0 U	3 B
Lead	500	SB*		124.0	432.0	**971.0**	450.0	147.0	**602.0**
Mercury	23	0.1		**1.22**	**0.73**	0.25 U	0.25 U	0.25 U	0.14 B
Selenium	390	2 or SB		0.5 B	0.4 B	1.0 U	1.0 U	1.0 U	0.4 B
Silver	390	SB		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Copper	3,100	25 or SB		**94.2**	**210.0**	**483.0**	**31.4**	12.5	**108.0**
Zinc	23,000	20 or SB		**109.0**	**875.0**	**101.0**	**258.0**	18.5	**166.0**

mg/kg - Milligrams per kilogram
U - Indicates that compound was analyzed for but not detected
B - Indicates compound was detected in trip blank
SB - Site Specific Background Concentrations
* - Background values for lead vary widely - average background values in metropolitan or suburban areas or near highways typically range from 200-500 ppm
[1] - USEPA Risk-Based Concentrations, 1995
[2] - Recommended Soil Cleanup Objective, NYSDEC, 1994
Bold - Data highlighted in bold represents concentrations detected above the Recommended Soil Cleanup Objectives or RBC for lead

Table 3A. Summary of TCLP Analysis of Lead and Mercury Detected in Soil at 38 Homan Avenue, Bay Shore, New York.

	Sample Designation:	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6
	Sample Depth:	0-2.5	0-2	0-2	0-2.5	0-1.5	0-1.5
	Sample Date:	12/1/97	12/1/97	12/1/97	12/1/97	12/1/97	12/1/97
Parameter (Concentrations in mg/L)	**Hazardous Waste Regulatory Level [1] (mg/L)**						
Lead	5.0	0.32	0.81	0.22 B	**77.0**	0.12 B	0.76
Mercury	0.2	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U

mg/L - Milligrams per liter
U - Indicates that compound was analyzed for but not detected
B - Indicates that compound was detected in trip blank
[1] - Defined in New York State Department of Environmental Conservation Spill Technology and Remediation Series
Bold - Data highlighted in bold represents concentrations detected above the Hazardous Waste Regulatory Level

Table 4. Summary of Volatile Organic Compounds Detected in Ground Water at 38 Homan Avenue, Bay Shore, New York.

Parameter (Concentrations in µg/L)	NYSDEC STARS (µg/L)	Sample Designation: GW-1 Sample Depth (ft bls): 2.5-4.0 Sample Date: 12/1/97	GW-3 2.0-6.0 12/1/97	GW-4 2.6-4.0 12/1/97
Benzene	0.7	1.0 U	1.0 U	1.0 U
Toluene	5	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U
M/P-Xylenes	5	2.0 U	2.0 U	2.0 U
O-Xylene	5	1.0 U	1.0 U	3.5
1,2,4-Trimethylbenzene	5	1.0 U	1.0 U	**60**
Isopropylbenzene	5	1.0 U	1.0 U	**8.3**
1,3,5-Trimethylbenzene	5	2.0 U	2.0 U	2.0 U
n-Butylbenzene	5	1.0 U	1.0 U	**64**
n-Propylbenzene	5	1.0 U	1.0 U	**12**
p-Isopropytoluene	5	1.0 U	1.0 U	1.0 U
sec-Butylbenzene	5	1.0 U	1.0 U	4.6
tert-Butylbenzene	5	1.0 U	1.0 U	1.0 U

Notes:

U - Indicates compound was analyzed for but not detected

NYSDEC STARS - New York State Department of Environmental Conservation Spill Technology and Remediation Series

µg/L - Micrograms per liter

Bold - Data highlighted in bold represent results detected above the NYSDEC STARS

Table 5. Summary of Semivolatile Organic Compounds Detected in Groundwater at 38 Homan Avenue, New York.

Parameter (Concentrations in µg/L)	STARS Guidance Values	Sample Designation: GW-1 Sample Depth: 2.5-4.0 Sample Date: 12/1/97	GW-3 2.0-6.0 12/1/97	GW-4 2.6-4.0 12/1/97
Naphthalene	10	12 U	10 U	10 U
Acenaphthene	20	9 J	10 U	4 J
Fluorene	50	1 J	10 U	10 U
Phenanthrene	50	12 U	10 U	1 J
Anthracene	50	12 U	10 U	10 U
Fluoranthene	50	12 U	10 U	10 U
Pyrene	50	12 U	10 U	10 U
Benzo(a)anthracene	0.002	12 U	10 U	10 U
Chrysene	0.002	12 U	10 U	10 U
Benzo(b)fluoranthene	0.002	12 U	10 U	10 U
Benzo(k)fluoranthene	0.002	12 U	10 U	10 U
Benzo(a)pyrene	0.002	12 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002	12 U	10 U	10 U
Dibenzo(a,h)anthracene	50	12 U	10 U	10 U
Benzo(g,h,i)perylene	0.002	12 U	10 U	10 U

µg/L - Micrograms per liter
J - Indicates detected below MDL, Estimated value
U - Indicates that compound was not detected
NYSDEC STARS - New York State Department of Environmental Conservation Alternative Guidance Values.

Table 6. Summary of Total RCRA Metals Plus Copper and Zinc Detected in Ground Water at 38 Homan Avenue, Bay Shore, New York.

Parameter (Concentrations in µg/L)	NYSDEC[1] AWQC (µg/L)	Sample Designation: GW-1 Sample Date: 12/1/97	GW-1/F 12/1/97	GW-3 12/1/97	GW-4 12/1/97
Arsenic	50	**67.4**	17.3	8.0 U	8.0 U
Barium	1,000	1,000.0 U	1,000.0 U	1,000.0 U	1,000.0 U
Cadmium	10	25.0 U	25.0 U	25.0 U	25.0 U
Chromium	50	**60 B**	100.0 U	100.0 U	100.0 U
Lead	50	**580.0**	**286.0**	20 B	20 B
Mercury	2	**18.8**	0.0005 U	0.0005 U	0.0005 U
Selenium	10	3.4 B	3.0 B	10.0 U	3.6 B
Silver	50	50.0 U	50.0 U	50.0 U	50.0 U
Copper	200	**410**	150.0	50.0 U	50.0 U
Zinc	300	**2,640**	**787.0**	142.0	77.0

µg/L - Micrograms per liter
F - Filtered sample
U - Indicates that compound was analyzed for but not detected
B - Indicates that compound was detected in trip blank
[1] - New York State Department of Environmental Conservation Ambient Water Quality Criteria
Bold - Data highlighted in bold represents concentrations detected above the Ambient Water Quality Criteria

Table 7. Summary of Chloride Concentrations Detected in Ground Water at 38 Homan Avenue, Bay Shore, New York.

Sample Designation: / Sample Date:	GW-1 12/1/97	GW-3 12/1/97	GW-4 12/1/97
Classification Based on Chloride Concentration in mg/L[1]			
Fresh Groundwaters equal to or less than 250 mg/L		205	165
Class GSB Saline Groundwaters in excess of 1,000 mg/L	519		

Notes:

mg/L - Milligrams per liter

[1] - Classification defined by New York State Department of Environmental Conservation Ambient Water Quality Criteria

Table 8. Summary of Total Dissolved Solids Detected in Ground Water at 38 Homan Avenue, Bay Shore, New York.

Sample Designation: / Sample Date:	GW-1 12/1/97	GW-3 12/1/97	GW-4 12/1/97
Classification Based on Total Dissolved Solids Concentration in mg/L [1]			
Fresh Groundwaters equal to or less than 1,000 mg/L		520	460
Class GSB Saline Groundwaters in excess of 2,000 mg/L	1,700		

Notes:

mg/L - Milligrams per liter

[1] - Classification defined by New York State Department of Environmental Conservation Ambient Water Quality Criteria

ATTACHMENT 1

Laboratory Analytical Report

Post-it® Fax Note 7671	Date 3/5/98	# of pages ▶
To S. Elbaum	From L. McGuckin	
Co./Dept.	Co.	
Phone #	Phone # ATTACH. 1	
Fax # (203) 462-7599	Fax # COVER — P. 30	

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111, Fax: (908) 225-4110

JANUARY 7, 1998

ROUX ASSOCIATES
1377 MOTOR PARKWAY
ISLANDIA, NY 11788
ATTN: CHARLIE M.

Analytical Report: 97-12-0001 Project: GIBSON & CUSHMAN

This technical report contains the analytical results of ten (10) samples submitted to Analab on December 1, 1997. The following analyses were requested:

BASE NEUTRAL ORGANICS (8270 -STARS LIST) - GC/MS (9)
LIBRARY SEARCH (1)
GPC CLEANUP - GC/MS (4)
VOLATILE ORGANICS (8021 - STARS LIST) - GC (9)
LEAD (RE-ANALYSIS) (4)
TCLP METALS (LEAD, MERCURY, ZINC) (10)
RCRA METALS + COPPER + ZINC (10)
TOTAL DISSOLVED SOLIDS (3)
CHLORIDE (3)

Respectfully submitted,

Robert Hulit
Manager of Laboratory Services

Elizabeth A. Panico
VP of Laboratory Operation

RH/mv

LABORATORY DELIVERABLES CHECKLIST

Project Number: 97-12-0001

THIS FORM HAS BEEN COMPLETED BY ANALAB AND ACCOMPANIES ALL DATA DELIVERABLES PACKAGES.

The following laboratory deliverables are included in this analytical report. Any deviations from the accepted methodology and procedures, or performance values outside acceptable ranges are summarized in the Non-Conformance Summary.

	Yes	NA
I. Report Cover Page, Laboratory Certification and Field Sample to Lab Sample ID Cross Reference	✓	
II. Table of Contents	✓	
III. Chain of Custody Documents	✓	
IV. Methodology Summaries	✓	
V. Laboratory Chronicle and Hold Time Checks	✓	
VI. Non-Conformance Summary	✓	
VII. Tabulated Analytical Results	✓	
VIII. Initial and Continuing Calibration Information	✓	
IX. Tune and Internal Standard Area Summaries (GC/MS)	✓	
X. Quality Control Summary Reports	✓	
XI. Surrogate Recovery Summary	✓	
XII. Raw Data Chromatograms, Blank, QCs and Samples	✓	
XIII. Subcontract Information		✓

F. Kmiella
Laboratory Mgr or QA/QC Coordinator

1/7/98
Date

ANALab INC. 208 Campus Plaza II, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

VOLUME I OF III

ROUX ASSOCIATES

PROJECT#: 97-12-0001

PROJECT NAME: GIBSON & CUSHMAN

ANALab INC. 206 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

ANALYTICAL DATA REPORT PACKAGE
ROUX ASSOCIATES INC
1377 MOTOR PARKWAY
ISLANDIA,NY 11788

CLIENT PROJECT:GIBSON & CUSHMAN
SAMPLE(s) RECEIVED DATE:12/01/97 **PROJECT:**

SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLE DATE/TIME
97-12-0001-001	SB-1	12/01/97 ; 08:50
97-12-0001-002	GW-1	12/01/97 ; 08:50
97-12-0001-003	GW-1 X-TRA	12/01/97 ; 08:50
97-12-0001-004	SB-2	12/01/97 ; 10:10
97-12-0001-005	SB-3	12/01/97 ; 10:40
97-12-0001-006	GW-3	12/01/97 ; 10:40
97-12-0001-007	SB-4	12/01/97 ; 11:45
97-12-0001-008	GW-4	12/01/97 ; 11:45
97-12-0001-009	SB-5	12/01/97 ; 12:30
97-12-0001-010	SB-6	12/01/97 ; 13:10

LABORATORY CERTIFICATION NUMBERS
NJDEP ID:12531 MADEQE ID:NJ302 VADGS ID:00007 NYDOH:11104
NHDES ID:250492-A,B CTDHS ID:PH-0649 MDDHMH ID:186
RIDHHL ID:NJ12531 PADER ID:68-368

K. Kinsella

KAY KINSELLA/FRED KHALIL
QUALITY CONTROL COORDINATOR
JOHN VISICARO
QUALITY ASSURANCE COORDINATOR

ROBERT F. HULIT
MANAGER OF LABORATORY SERVICES

ELIZABETH A. PANICO
VP OF LABORATORY OPERATIONS

SUNIL TRIPATHI
ASST. LABORATORY MANAGER

COMMENTS:
NA = NOT AVAILABLE FROM CHAIN OF CUSTODY / NOT APPLICABLE

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

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PROJECT NUMBER: 97-12-0001

ANALAB INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111, Fax: (908) 225-4110

CHAIN OF CUSTODY

ANALab INC.

205 Campus Plaza 1, Raritan Center, Edison, New Jersey 08837 (908) 225-4111
ENVIRONMENTAL ANALYTICAL LABORATORY SERVICES FAX (908) 225-4110

CHAIN-OF-CUSTODY RECORD and Work Authorization

LAB SDG NO.: (FOR LAB USE ONLY) 97-12-0001

Company: Roux Associates
Address: 1377 Motor Park Way
City: Islandia
State: NY ZIP 11788
Phone (516) 232-2600
Fax 516 232-9898
Project Manager
Project name: Gibson & Cushman
Purchase Order No.

ANALYSIS REQUESTED (annotations: one procedure; one procedure)

PRINT ANALYSIS; REQUESTS CLEARLY, LEGIBLY AND COMPLETELY.
Page 1 of 1

	SAMPLE DESCRIPTION	TYPE GRB	TYPE COMP	MATRIX TYPE	DATE SAMPLED	TIME	PRES	NO. CONT	VOC USEPA	SVOC USEPA	RCRA metals	USEPA 6010	Chlorides + TDS	REMARKS
1	SB-1	X		Soil	12-1-97	9:50		3	1	1	1			2 4oz - 1 2oz ...
2	GW-1			Ground Water	12-1-97	9:50		4	1	1	1		1	unfiltered 2 lite...
3	GW-1 y-tca			Ground Water	12-1-97	9:50		1			1			Filter this 1 ...
4	SB-2	X		Soil	12-1-97	10:10		3	1	1	1			2 4oz - 1 2oz half
5	SB-3	X		Soil	12-1-97	10:40		3	1	1	1			
6	GW-3			Ground Water	12-1-97	10:40		4	1	1	1		1	unfiltered 2 lite...
7	SB-4	X		Soil	12-1-97	11:45		3	1	1	1			2 4oz - 1 2oz ...
8	GW-4			Ground Water	12-1-97	11:45		4	1	1	1		1	unfiltered 2 lite...
9	SB-5	X		Soil	12-1-97	12:30		3	1	1	1			2 4oz - 1 2oz ...
10	SB-6	X		Soil	12-1-97	13:10		3	1	1	1			"

FAILURE TO PRINT CLEARLY, LEGIBLY AND COMPLETELY MAY RESULT IN DELAYS. ANY ANALYSIS REQUEST NOT ENTERED COMPLETELY, CLEARLY AND LEGIBLY OR WHICH IS CONFUSING OR AMBIGUOUS MAY RESULT IN DELAYS. SAMPLES CAN NOT BE LOGGED IN AND THE TURNAROUND TIME CLOCK WILL NOT START UNTIL ANY AMBIGUITIES ARE RESOLVED. TO AVOID THIS, PRINT CLEARLY, LEGIBLY AND COMPLETELY.

SAMPLER/SUBMITTER'S STATEMENT: I attest that the proper field sampling procedures were used during the collection of these samples and that the information on this Chain of Custody and the analysis(es) requested are true and correct. Name (print) Rob T. Pete B. Signature: [signature]

RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	RELINQUISHED TO LABORATORY BY:	ACCEPTED FOR LAB BY	DATE	TIME
Rob Tweedale	[signature]	12-1-97	16:15	[signature]	V. Howland	12/1/97	17:00

Turnaround Time (Faxables)

24 Hour____ 5 Day____
48 Hour____ 10 Day____
72 Hour X 14 Day____

If other than 14 day contact your project manager for authorization number.

Auth No: ________

Laboratory Comments:

RUSH

All Samples Received
Temp 2.4 °C Cool (Yes) No
Samples Intact (Yes) No
Properly Preserved (Yes) No

Data Deliverables (Standard T.A.T. Hard Copy)

Results only____
Results with QC____
RTD-4____
FTD-2____

If other than standard turnaround time for hard copy, please indicate in client remarks.

Client Remarks:
RCRA metals + Copper + Zinc USEPA 6010
Chlorides + Total Dissolved Solids
All 72 hour Turnaround.

RUSH ANALYSIS

FAX T.A.T: 72Hr H.C. T.A.T.: _____ PROJECT# 97-12-001

CLIENT NAME: BAX PHONE # _____

FAX # _____

CONTACT PERSON: Beth Panico APPROVAL # 01

DATE CONTACTED: 11/25/97

CLIENT PROJECT: _____ FAX DUE DATE: 12/4/97 Thu

ARRIVAL DATE: ~~12/2/97~~ HARD COPY DUE DATE: _____

SAMPLE #	MATRIX	TEST REQUESTED	APPROVED	NOT APPROVED
1,4,5,7,9,10 B	S	EXTRACTION: 8270 (stars)	B	
2,6,8 3	W			
2,6,8 3	W	WET CHEMISTRY: TDS, Chloride	DM	
1,4,5,7,9,10	S	METALS: RCRA Met. + Cu, Zn	DR	
2,3,6,8	W			
1,4,5,7,9,10	S	GC VOA: 8021 (stars)	DOE 11/25/97	
2,6,8 3	W			
		GC EXTRACT:		
		GC/MS VOA:		
1,4,5,7,9,10	S	GC/MS EXTRACT: 8270 (stars)	Anne	
2,6,8 3	W			

ANALAB INC. 205 CAMPUS PLAZA 1, EDISON, NJ, 08837, (908) 225-4111

CHANGE OF WORK ORDER

DATE OF CONTACT 12/9/97 PROJECT # 97-12-001

CLIENT NAME Roux

CONTACT PERSON Charlie (Beth Panico)

REMARKS

Re-Run #002, 003, 006, 008 for Pb (MDL-50ppb). Report Library Search #007 - PAH (8270). GC clean up #1, 4, 5, 9, 10

CHANGES REQUESTED

ANALAB SAMPLE I.D.	CLIENT I.D.	CHANGE REQUEST- ADD/ DELETE
2, 3, 6, 8		Pb (Re-Run)
7		Library Search (8270)

THIS DOCUMENT IS ENCLOSED TO REFLECT ANY CHANGES THAT HAVE OCCURRED SINCE THE ORIGINAL CHAIN OF CUSTODY WAS SIGNED.

PERSON COMPLETING THIS FORM _____ DATE 12/9/97

ANAlab INC. 205 CAMPUS PLAZA 1, EDISON, NJ, 08837, (908) 225-4111

CHANGE OF WORK ORDER

DATE OF CONTACT 12/9/97 PROJECT # 97-12001

CLIENT NAME Roux

CONTACT PERSON John Masculin @ 17:30

REMARKS

Add TCLP - Pb, Hg, Zn

to all Samples

Rush Requested.

CHANGES REQUESTED

ANALAB SAMPLE I.D.	CLIENT I.D.	CHANGE REQUEST- ADD/ DELETE
1-10		TCLP Pb, Hg, Zn

THIS DOCUMENT IS ENCLOSED TO REFLECT ANY CHANGES THAT HAVE OCCURRED SINCE THE ORIGINAL CHAIN OF CUSTODY WAS SIGNED.

PERSON COMPLETING THIS FORM _____ DATE 12/9/97

ANAlab INC. 285 CAMPUS PLAZA 1, RARITAN CENTER, EDISON, NJ, 08837 (908)225-4111

RUSH ANALYSIS

FAX T.A.T: 48Hr. H.C. T.A.T.: _____ PROJECT# 97-12-001

CLIENT NAME: Roux PHONE # [redacted]

FAX # [redacted]

CONTACT PERSON: _____ APPROVAL # 01-A[redacted]

DATE CONTACTED: _____

CLIENT PROJECT: _____ FAX DUE DATE: [redacted]

ARRIVAL DATE: COC 12/9 HARD COPY DUE DATE: _____

SAMPLE #	MATRIX	TEST REQUESTED	METHOD	NO. APPROVED
		EXTRACTION:		
1-10	w/s	WET CHEMISTRY: TCLP Metals leachate	DM	
1-10	w/s	METALS: TCLP Pb, Hg, Zn	DM	
		GC VOA:	[redacted]	
		GC EXTRACT:	[redacted]	
		GC/MS VOA:		
		GC/MS EXTRACT:		

METHOD SUMMARIES

AnaLab, Inc. 205 Campus Plaza, Edison, New Jersey 08837 (908) 225-4111

METHODS SUMMARY

Extractable Organics by GC/MS:

_	Priority Pollutant Base Neutral & Acids (Aqueous)	EPA Method 625		Ref. 1
_	Additional Calibrated Compounds (Aqueous)	EPA Method 625		Ref. 1
_	Priority Pollutant Base Neutral & Acids (Non-Aqueous)	SW846 8270B	Rev 2, 9/94	Ref. 2
_	8270 Base Neutral & Acids (Aqueous)	SW846 8270B	Rev 2, 9/94	Ref. 2
_	8270 Base Neutral & Acids (Non-Aqueous)	SW846 8270B	Rev 2, 9/94	Ref. 2
_	EPA TCL List Semi-Volatiles (Aqueous)	SW846 8270B	Rev 2, 9/94	Ref. 2
_	EPA TCL List Semi-Volatiles (Non-Aqueous)	SW846 8270B	Rev 2, 9/94	Ref. 2
_	PAH (Polynuclear Aromatic Hydrocarbons) (Aqueous)	EPA Method 625		Ref. 1
✓	NY STARS List PAH's (Aqueous & Non-Aqueous)	SW846 8270B	Rev 2, 9/94	Ref. 2
_	PAH (Polynuclear Aromatic Hydrocarbons) (Aqueous)	SW846 8270B	Rev 2, 9/94	Ref. 2
_	PAH (Polynuclear Aromatic Hydrocarbons) (Non-Aqueous)	SW846 8270B	Rev 2, 9/94	Ref. 2
_	TCLP Semi-Volatiles (1311Organic Extraction)	SW846 8270B	Rev 2, 9/94	Ref. 2

Sample Preparation for Extractable Organics by GC/MS:

_	Aqueous Matrix "Separatory Funnel Extraction"	SW846 3510B	Rev 2, 9/94	Ref. 2
_	Aqueous Matrix "Continuous Liq-Liq Extraction"	SW846 3520B	Rev 2, 9/94	Ref. 2
_	Soil.Solid.Sludge "Soxlet Extraction"	SW846 3540B	Rev 2, 9/94	Ref. 2
_	Soil.Solid.Sludge "Ultrasonic Extraction"	SW846 3550	Rev 1, 9/94	Ref. 2
_	Organics "Waste Dilution"	SW846 3580A	Rev1, 7/92	Ref. 2
_	TCLP Leaching Procedure	SW846 1311	Rev 0, 7/92	Ref. 2
_	SPLP Leaching Procedure	SW846 1312	Rev 0, 9/94	Ref. 2

Sample "Cleanup" Procedures for Extractable Organics by GC/MS:

_	Semi-Volatiles	Alumina	SW846 3610A	Rev 2, 9/94	Ref. 2
_	PAH Only	Petroleum Wst. Alumina (PAH Only)	SW846 3611A	Rev 1, 7/92	Ref. 2
_	Semi-Volatiles	Petroleum Wst. Alumina (Full List)	SW846 3611A	Rev 1, 7/92	Ref. 2
_	Semi-Volatiles	Florisil Cleanup	SW846 3620A	Rev 1, 7/92	Ref. 2
✓	Semi-Volatiles	Silica Gel Cleanup	SW846 3630B	Rev 2, 9/94	Ref. 2
_	Semi-Volatiles	Gel Permeation (GPC) Cleanup	SW846 3640A	Rev 1, 9/94	Ref. 2
_	Semi-Volatiles	Acid-Base Partition Cleanup	SW846 3650A	Rev 1, 9/94	Ref. 2

References:
1. USEPA, 40CFR136 List of Approved Test Procedures, 1/31/94 w/Revs 4/4/95, Federal Register Vol. 49, No. 209, Oct. 26, 1984.
2. EPA SW-846, Test Methods for Evaluating Solid Waste, Physical & Chemical Methods, 3rd Ed, Final Update IIB, January 1995.

AnaLab, Inc. 205 Campus Plaza, Edison, New Jersey 08837 (908) 225-4111

METHODS SUMMARY

Volatile Organics by GC: Gas Chromatography

—	EPA 601 Volatiles Purgeable Halocarbons (Aqueous)	EPA 601 P&T, Hall		Ref. 1
—	Additional Calibrated Compounds (Aqueous)	EPA 601 P&T, Hall		Ref. 1
—	EPA 602 Volatile Aromatics (Aqueous)	EPA 602 P&T, PID		Ref. 1
—	Added Compounds MTBE, DIPE, Xylenes,Naphthalene	EPA 602 P&T, PID		Ref. 1
—	BTEX (602) (Benzene, Toluene, Ethylbenzene, Xylenes)	EPA 602 P&T, PID		Ref. 1
—	Added Compounds MTBE, DIPE, Xylenes,Naphthalene	EPA 602 P&T, PID		Ref. 1
—	8010 Halogenated Volatile Organics (Aqueous)	SW846 8010B P&T Hall	Rev 2, 9/94	Ref. 2
—	8010 Halogenated Volatile Organics (Non-Aqueous)	SW846 8010B P&T Hall	Rev 2, 9/94	Ref. 2
—	8020 Aromatic Volatiles (Aqueous)	SW846 8020A P&T PID	Rev 1, 9/94	Ref. 2
—	8020 Aromatic Volatiles (Non-Aqueous)	SW846 8020A P&T Hall	Rev 1, 9/94	Ref. 2
—	BTEX 8020 Aromatic Volatiles (Aqueous)	SW846 8020A P&T PID	Rev 1, 9/94	Ref. 2
—	BTEX 8020 Aromatic Volatiles (Non-Aqueous)	SW846 8020A P&T PID	Rev 1, 9/94	Ref. 2
—	GRO (Gasoline Range Organics) (Aqueous)	SW846 8020A P&T PID	Rev 1, 9/94	Ref. 2
—	GRO (Gasoline Range Organics) (Non-Aqueous)	SW846 8020A P&T PID	Rev 1, 9/94	Ref. 2
—	8021 Volatile Organics (Aqueous)	SW846 8021A P&T PID-Hall	Rev 1, 9/94	Ref. 2
—	8021 Volatile Organics (Non-Aqueous)	SW846 8021A P&T PID-Hall	Rev 1, 9/94	Ref. 2
✓	NY STARS List 8021 Volatile Organices	SW846 8021A P&T PID-Hall	Rev 1, 9/94	Ref. 2
—	BTEX (8021) & Added Compounds (AQ)	SW846 8021A P&T PID-Hall	Rev 1, 9/94	Ref. 2
—	BTEX (8021) & Added Compounds (Non-AQ)	SW846 8021A P&T PID-Hall	Rev 1, 9/94	Ref. 2
—	8011 (EDB, EDC) (Aqeuous)	SW846 MicroExtraction ECD	Rev 0, 7/92	Ref. 2
—	8011 (EDB, EDC) (Non-Aqeuous)	SW846 MicroExtraction ECD	Rev 0, 7/92	Ref. 2
—	EPA 504.1 (EDB, EDC) (Aqeuous)	EPA 504.1 MicroExtraction ECD		Ref. 3
—	TBA (Tertiary Butyl Alcohol)	SW846 8015A Mod DAI- FID	Rev 1, 7/92	Ref. 2
—	Alcohols (Methanol, Ethanol, Isopropyl)	SW846 8015A Mod DAI- FID	Rev 1, 7/92	Ref. 2

Sample Preparation for Volatile Organics by GC:

—	TCLP Leaching Procedure (ZHE)	SW846 1311	Rev 0, 7/92	Ref. 2
—	SPLP Leaching Procedure (ZHE)	SW846 1312	Rev 0, 9/94	Ref. 2
✓	Volatiles Purge & Trap	SW846 5030A	Rev 1, 7/92	

Reference:
1. USEPA, 40CFR136 List of Approved Test Procedures, 1/31/94 w/Revs 4/4/95, Federal Register Vol. 49, No. 209, Oct. 26, 1984.
2. EPA SW846, Test Methods for Evaluating Solid Waste, Physical & Chemical Methods, 3rd Ed. Final Update IIB, January 1995.
3. USEPA, Methods for the Determination of Organic Compounds in Drinking Water, (EPA 600/4-88/039) Rev 7/91 Supplement II. (EPA 600/R-92/129) Aug 1992. USEPA Technical Notes on Drinking Water Methods (EPA 600/R-94/173) 10/94.

AnaLab, Inc. 205 Campus Plaza, Edison, New Jersey 08837 (908) 225-4111

METHODS SUMMARY

Metals Analysis by Atomic Absorption Spectrophotometry:

__Priority Pollutant Metals (13) (Aqueous): Ground Water, Surface Water, Wastewater Ref. 1

Antimony	EPA 204.4	GF-AA	Mercury	EPA 245.1	CV-AA
Arsenic	EPA 206.2	GF-AA	Nickel	EPA 249.1	DA-AA
Beryllium	EPA 210.1	GF-AA	Selenium	EPA 270.2	GF-AA
Cadmium	EPA 213.2	GF-AA	Silver	EPA 272.1	DA-AA
Chromium	EPA 218.1	DA-AA	Thallium	EPA 279.2	GF-AA
Copper	EPA 220.1	DA-AA	Zinc	EPA 289.1	DA-AA
Lead	EPA 239.2	GF-AA			

__Priority Pollutant Metals (13) (Non-Aqueous): Soil, Solid, Sludge, Sediment Ref. 2

Antimony	SW846 7041,	Rev.0, 9/86, GF-AA	Arsenic	SW846 7060A,	Rev. 1, 9/94, GF-AA
Beryllium	SW846 7091,	Rev. 0 9/86, GF-AA	Cadmium	SW846 7131A,	Rev. 1, 9/94, GF-AA
Chromium	SW846 7190,	Rev. 0, 9/86, DA-AA	Copper	SW846 7210,	Rev. 0, 9/86, DA-AA
Lead	SW846 7420,	Rev. 0, 9/86, DA-AA	Mercury	SW846 7471A,	Rev. 1, 9/94, CV-AA
Nickel	SW846 7520,	Rev. 0, 9/86, DA-AA	Selenium	SW846 7740,	Rev. 0, 9/86, GF-AA
Silver	SW846 7760A,	Rev:0, 7/92, DA-AA	Thallium	SW846 7841,	Rev. 0 9/86, GF-AA
Zinc	SW846 7950,	Rev. 0, 9/86, DA-AA			

__TAL List Metals (23) (Aqueous) Ground Water, Surface Water, SW846 7000A Series Ref. 2

Aluminum	SW846 7020A,	Rev:0 9/86, DA-AA	Antimony	SW846 7041,	Rev.0, 9/86, GF-AA
Arsenic	SW846 7060A,	Rev.1 9/94, GF-AA	Barium	SW846 7080A,	Rev.1, 9/94, DA-AA
Beryllium	SW846 7091,	Rev.0 9/86, GF-AA	Cadmium	SW846 7131A,	Rev.1, 9/94, GF-AA
Calcium	SW846 7140,	Rev:0 9/86, DA-AA	Chromium	SW846 7190,	Rev.0, 9/86, DA-AA
Cobalt	SW846 7200,	Rev.0 9/86, DA-AA	Copper	SW846 7210,	Rev.0, 9/86, DA-AA
Iron	SW846 7380,	Rev:0 9/86, DA-AA	Lead	SW846 7421,	Rev.0, 9/86, GF-AA
Magnesium	SW846 7450,	Rev:0 9/86, DA-AA	Manganese	SW846 7460,	Rev:0, 9/86, DA-AA
Mercury	SW846 7470A,	Rev:1 9/94, CV-AA	Nickel	SW846 7520,	Rev.0, 9/86, DA-AA
Potassium	SW846 7610,	Rev:0 9/86, DA-AA	Selenium	SW846 7740,	Rev.0, 9/86, GF-AA
Silver	SW846 7760A,	Rev.0 7/92, DA-AA	Sodium	SW846 7770,	Rev.0, 9/86, DA-AA
Thallium	SW846 7841,	Rev.0 9/86, GF-AA	Vanadium	SW846 7910,	Rev.0, 9/86, DA-AA
Zinc	SW846 7950,	Rev.0 9/86, DA-AA			

__TAL List Metals (23) (Non-Aqueous) Soil, Solid, Sludge, Sediment. SW846 7000A Series Ref. 2

Aluminum	SW846 7020A,	Rev.0 9/86, DA-AA	Antimony	SW846 7041,	Rev.0, 9/86, GF-AA
Arsenic	SW846 7060A,	Rev.1 9/94, GF-AA	Barium	SW846 7080A,	Rev.1, 9/94, DA-AA
Beryllium	SW846 7091,	Rev.0 9/86, GF-AA	Cadmium	SW846 7131A,	Rev.1, 9/94, GF-AA
Calcium	SW846 7140,	Rev.0 9/86, DA-AA	Chromium	SW846 7190,	Rev.0, 9/86, DA-AA
Cobalt	SW846 7200,	Rev.0 9/86, DA-AA	Copper	SW846 7210,	Rev.0, 9/86, DA-AA
Iron	SW846 7380,	Rev.0 9/86, DA-AA	Lead	SW846 7420,	Rev.0, 9/86, DA-AA
Magnesium	SW846 7450,	Rev.0 9/86, DA-AA	Manganese	SW846 7460,	Rev.0, 9/86, DA-AA
Mercury	SW846 7471A,	Rev.1 9/94, CV-AA	Nickel	SW846 7520,	Rev.0, 9/86, DA-AA
Potassium	SW846 7610,	Rev.0 9/86, DA-AA	Selenium	SW846 7740,	Rev.0, 9/86, GF-AA
Silver	SW846 7760A,	Rev.0 7/92, DA-AA	Sodium	SW846 7770,	Rev.0, 9/86, DA-AA
Thallium	SW846 7841,	Rev.0 9/86, GF-AA	Vanadium	SW846 7910,	Rev.0, 9/86, DA-AA
Zinc	SW846 7950,	Rev.0 9/86, DA-AA			

Sample Preparation for Metals by Atomic Absorption Spectrophotometry:

Total Metals (Aqueous) by Flame & Graphite Atomic Absorption	EPA 200 Series Section 4.1.3	Ref. 1
Dissolved and Total Recoverable Metals (Aqueous) by Flame Atomic Absorption	SW846 3005A Rev.1. 7/92	Ref. 2
Total Metals (Aqueous) by Flame Atomic Absorption	SW846 3010A Rev.1. 7/92	Ref. 2
Total Metals (Aqueous) by Graphite Furnace Atomic Absorption	SW846 3020A Rev.1. 7/92	Ref. 2
Total Metals (Non-Aqueous, Soil, Sludge,Sediment)	SW846 3050A Rev.1. 7/92	Ref. 2

REFERENCE: methods.doc QA 1/97, Rev 0. QC Document Control # 97-00058

1. USEPA, Chemical Methods for Analysis of Water & Wastes, EPA 600-4-79-020, 1979, Rev. March 1993.
2. EPA SW846, Test Methods for Evaluating Solid Waste, Physical & Chemical Methods, 3rd Ed. Final Update IIB, January 1995.

AnaLab, Inc. 205 Campus Plaza, Edison, New Jersey 08837 (908) 225-4111

METHODS SUMMARY

Metals Analysis by Atomic Absorption Spectrophotometry:

✓ TCLP Metals (8) (Non-Aqueous, Soil, Sludge, Sediment, Liquid Waste) SW846 7000A Series Ref. 2

Arsenic	SW8467060, Rev.1, 9/94, GF-AA	Barium	SW846 7080A, Rev.1, 9/94, DA-AA
Cadmium	SW846 7130, Rev. 0, 9/86, DA-AA	Chromium	SW846 7190, Rev. 0, 9/86, DA-AA
Lead	SW846 7420, Rev. 0, 9/86, DA-AA	Mercury	SW846 7470A, Rev.1, 9/94, CV-AA
Selenium	SW846 7740, Rev. 0, 9/86, GF-AA	Silver	SW846 7760A, Rev.1, 7/92, DA-AA

+ Zinc (only)

✓ RCRA (Total Metals) (8) (Aqueous & Non-Aqueous, Wastes) SW846 7000A Series Ref. 2

Arsenic	SW8467060, Rev.1, 9/94, GF-AA	Barium	SW846 7080A, Rev.1, 9/94, DA-AA
Cadmium	SW846 7130, Rev. 0, 9/86, DA-AA	Chromium	SW846 7190, Rev.0, 9/86, DA-AA
Lead	SW846 7420, Rev. 0, 9/86, DA-AA	Mercury	SW846 7470&1A, Rev.1,9/94, CV-AA
Selenium	SW846 7740, Rev. 0, 9/86, GF-AA	Silver	SW846 7760A, Rev.1, 7/92, DA-AA

(1)

+ Copper, Zinc

__ Primary & Secondary Drinking Water Metals: by Atomic Absorption Spectrophotometry: Ref 3,4,5

Primary Drinking Water Metals: (11)			Secondary Drinking Water Metals (6)		
Antimony	EPA 200.9	PGF-AA Ref.3	Aluminum	SM 3111 D	DA-AA Ref.4
Arsenic	EPA 200.9	PGF-AA Ref.3	Iron	SM 3111 D	DA-AA Ref.4
Barium	SM 3111 D	DA-AA Ref.4	Manganese	SM 3111 D	DA-AA Ref.4
Beryllium	EPA 200.9	PGF-AA Ref.3	Silver	SM 3111 D	DA-AA Ref.4
Cadmium	EPA 200.9	PGF-AA Ref.3	Sodium	SM 3111 D	DA-AA Ref.4
Chromium	EPA 200.9	PGF-AA Ref.3	Zinc	SM 3111 D	DA-AA Ref.4
Copper	SM 3111 D	DA-AA Ref.4	Special Low Detection Limit DW Metals		
Lead	EPA 200.9	PGF-AA Ref.3	Copper	EPA 200.9	PGF-AA Ref. 3
Mercury	EPA 245.1	CV-AA Ref.3	Molybdenum	EPA 200.9	PGF-AA Ref. 3
Nickel	SM 3111 D	DA-AA Ref.4	Nickel	EPA 200.9	PGF-AA Ref. 3
Selenium	EPA 200.9	PGF-AA Ref.3	Silver	EPA 200.9	PGF-AA Ref. 3
Thallium	EPA 200.9	PGF-AA Ref.3			

Sample Preparation for Metals by Atomic Absorption Spectrophotometry:

✓	TCLP Toxicity Characteristic Leaching Procedure	SW846 1311	Rev 0, 7/92	Ref. 2
__	SPLP Synthetic Precipitation Leaching Procedure	SW846 1312	Rev 0, 9/94	Ref. 2

Dissolved and Total Recoverable Metals (Aqueous) by Flame Atomic Absorption	SW846 3005A Rev.1, 7/92	Ref. 2
Total Metals (Aqueous) by Flame Atomic Absorption	SW846 3010A Rev.1, 7/92	Ref. 2
Total Metals (Aqueous) by Graphite Furnace Atomic Absorption	SW846 3020A Rev.1, 7/92	Ref. 2
✓ Total Metals (Non-Aqueous, Soil, Sludge,Sediment)	SW846 3050A Rev.1, 7/92	Ref. 2
Total Metals (Aqueous) by Flame & Graphite Atomic Absorption	EPA 200 Series Section 4.1.3	Ref. 1
Drinking Water Metals (Total Recoverable Metals)	EPA 200.2 Rev 2.3, 4/91	Ref. 3

Note: DA-AA = Direct Aspiration (Flame) Atomic Absorption Spectrophotometry
GF-AA = Graphite Furnace Atomic Absorption Spectrophotometry
PGF-AA = Platform Graphite Furnace Atomic Absorption Spectrophotometry

Reference:

1. USEPA, Chemical Methods for Analysis of Water & Wastes, EPA 600-4-79-020, 1979, Rev. March 1993.
2. EPA SW846, Test Methods for Evaluating Solid Waste, Physical & Chemical Methods, 3rd Ed, Final Update III, January 1995.
3. EPA, Methods for the Determination of Metals in Environmental Samples, EPA 600/4-91/010, 6/91 as Revised in Supplement I, (EPA/600/R-94/111) May 1994.
4. APHA, 1992, Standard Methods for the Examination of Water & Wastewater, 18th. Ed., 1992
5. USEPA, 40CFR141 and 40CFR143 Analytical Methods for Regulated Drinking Water Contaminants: Final Rule, Dec. 5, 1994.

AnaLab, Inc. 205 Campus Plaza, Edison, New Jersey 08837 (908) 225-4111

METHODS SUMMARY

Conventional Wet Chemistry Analysis: Soil, Sludge, Sediments, Solid & Liquid Waste

RCRA TC CHARACTERISTICS ANALYSES:

RCRA Ignitability	Setа Flash Closed Cup Flashpoint	SW846 1020 A	Rev.1, 7/92	Ref. 4
RCRA Corrosivity	as pH (<2.0 or >12.5)	SW846 9045 C	Rev.0, 1/95	Ref. 4
RCRA Cyanide Reactivity	Chapter 7, Sect 7.3 Bolsom-Titration	SW846 9010 A	Rev.1, 7/92	Ref. 4
RCRA Sulfide Reactivity	Chapter 7, Sect 7.3 Bolsom-Titration	SW846 9030 A	Rev.1, 7/92	Ref. 4
RCRA Paint Filter Test	Free Liquid	SW846 9095	Rev.0, 9/86	Ref. 4
% Moisture	Drying @ 105°C Gravimetric	USEPA CLP SOW ILMO 4.0		

SELECTED METHODS FOR SOIL, SLUDGE, SEDIMENTS, SOLIDS AND LIQUID WASTE ANALYSES:

% SOLIDS (Soils, screenable solids)	Gravimetric @ 103-105°C	USEPA CLP SOW ILMO 4.0		
TPHC Total Petroleum Hydrocarbons	Soxlet Extraction (Freon) IR	NJDEP 418.1 Mod		Ref. 1
TPHC Total Petroleum Hydrocarbons	Extraction (Freon) IR	EPA 418.1		Ref. 1
TOX Aqueous	GAC Absorpt. Combustion Microcoulometry	SW846 9020 B	Rev.2, 9/94	Ref. 4
TOX Soil, Sediment, Sludge	Total Halide, Inorganic Halide (Tox=TX-IX)	SW846 9020 B	Mod	Ref. 4
Total Halide in Oils	Hexane Extr. Combustion Microcoulometry	SW846 9076,	Rev.0, 9/94	Ref. 4
Chloride (Aqueous)	Titrimetric, HgNO3	SW846 9252A	Rev.1, 9/94	Ref. 4
Chloride (Soils)	Aqueous Extraction & Titrimetric, HgNO3	SW846 9252A	Rev.1, 9/94	Ref. 4
Nitrate NO3-N (AQ)	Spectrophotometric, Brucine	SW846 9200	Rev.0, 9/86	Ref. 4
Nitrate NO3-N (Soil)	Aqueous Extraction & Spectro., Brucine	SW846 9200	Rev.0, 9/86	Ref. 4
Nitrite NO2-N (AQ)	Spectrophotometric.	EPA 354.1		Ref. 1
Nitrite NO2-N (Soils)	Aqueous Extraction, Spectrophotometric.	EPA 354.1	Mod	Ref. 1
O-Phosphate (o-PO4-P) Soils	Aqueous Extraction, Ascorbic Acid, Man.	EPA 365.3	Mod	Ref. 1
Phosphorous, Total (Soils)	Persulfate Digest, Ascorbic 2 Reagent	EPA 365.2 &3	Mod	Ref. 1
Ammonia, Total (Soils)	Distillation, Nesslerization	EPA 350.2	Mod	Ref. 1
Kjeldahl Nitrogen (TKN-N) Soil	Digest, Distillation, Titration	EPA 351.3	Mod	Ref. 1
Total Cyanide (Liquid)	Distillation, Spectrophotometric Manual	SW846 9010A	Rev.1, 7/92	Ref. 4
Total Cyanide (Soils)	Distillation, Spectrophotometric Manual	SW846 9013	Rev.0, 7/92	Ref. 4
Total Phenolics (Soils)	Distillation, Spectrophotometric Manual	SW846 9065	Rev.0, 9/86	Ref. 4
Total Organic Carbon (Soil)	Combustion, IR (Region II, Kuan Mean/Mod)	SW846 9060	Rev.0, 9/86	Ref. 4
Hexavalent Chromium (Soils)	Alkaline Digestion 3060 & DPC (NJ Mod)	SW846 7196 A	Draft 8/92	Ref. 3
Flash Point (Liquids)	Setа Flash Closed Cup	SW846 1020A,	Rev.1 7/92	Ref. 4
pH (Liquids, AQ)	Electrometric	SW846 9040B,	Rev.2, 1/95	Ref. 4
pH (Wastes)	pH Sensitive Paper Method	SW846 9041A,	Rev.1, 7/92	Ref. 4
pH (Soil, Sludge Waste)	pH in Water @ 20°C	SW846 9045C,	Rev.3, 1/95	Ref. 4
Oil & Grease (Soil, Solids)	Soxlet Extr, Freon, Gravimetric	SW846 9070	Rev.0, 9/86	Ref. 4
Oil & Grease (Soil, Solids)	Soxlet Extr, Freon, IR	SW846 9071A,	Rev.1, 9/94	Ref. 4
Specific Conductance (AQ)	Electrometric	SW846 9050	Rev.0, 9/86	Ref. 4
Sulfate, SO4 (Aqueous)	Turbidimetric	SW846 9038	Rev.0, 9/86	Ref. 4
Sulfate (Non/Aqueous)	Aqueous Extraction, Turbidimetric	SW846 9038 Mod	Rev.0, 9/86	Ref. 4
Sulfide, Acid Soluble & Insoluble	Distillation, Idometric	SW846 9030A	Rev.1, 7/92	Ref. 4
Acid Forming Deposits	Soil pH & Sulfide Ion Qualitative	SW846 Methods Mod. as listed above.		
% Organic Content in Soil	Ignition @ 540°C, Gravimetric	AASHTO Designation T 267-86 p.801		
TCLP Toxicity Characteristic Leaching Procedure		SW846 1311	Rev 0, 7/92	Ref. 4
EPLP Synthetic Precipitation Leaching Procedure		SW846 1312	Rev 0, 9/94	Ref. 4
ASTM Shake Extraction of Solid Waste with Water		ASTM D3987-85		

REFERENCES:

1. USEPA. Chemical Methods for Analysis of Water & Wastes. EPA 600-4-79-020. 1979, Rev. March 1993.
2. APHA. 1992. Standard Methods for the Examination of Water & Wastewater, 18th. Ed., 1992
3. "NJDEPE Modified Method 3060 & 7196A, SW846 3rd Ed., Chromium, Hexavalent (Colorimetric)" DRAFT. Aug. 14, 1992.
4. EPA SW846. Test Methods for Evaluating Solid Waste, Physical & Chemical Methods, 3rd Ed. Final Update IIB, January 1995.

AnaLab, Inc. 205 Campus Plaza, Edison, New Jersey 08837 (908) 225-4111

METHODS SUMMARY

Conventional Wet Chemistry Analysis: Ground Water, Surface Water, Wastewater

Acidity as CaCO3	Electrometric Titration	EPA 305.1	Ref. 1
Alkalinity, Total as CaCO3 to pH 4.5	Electrometric Titration	EPA 310.1	Ref. 1
Alkalinity,(Carbonate,Bicarbonate)as CaCO3	Electrometric Titration	SM 4500-CO2 D	Ref. 2
Carbon Dioxide, Dissolved	Electrometric Titration, Calculation	SM 4500-CO2 D	Ref. 2
Ammonia, Total NH3-N	Distillation, Nesslerization	EPA 350.2	Ref. 1
Biochemical Oxygen Demand	Dissolved 02 Dep (5Day)	EPA 405.1	Ref. 1
Boron, Total	Colorimetric, Carmonin	EPA 212.3	Ref. 1
Bromide	Titrimetric	EPA 320.1	Ref. 1
Carbonaceous BOD	DO Depletion, Nitrification Inh.	EPA 405.1	Ref. 1
Chemical Oxygen Demand	Closed Reflux, Spectrophotometric	EPA 410.4	Ref. 1
Chloride	Titrimetric, Mercuric Nitrate	EPA 325.3	Ref. 1
Color, Platinum-Cobalt (PCUs)	Colorimetric, Pt-Co	EPA 110.2	Ref. 1
Cyanide, Total	Distillation, Spectro. Manual	EPA 335.2	Ref. 1
Cyanide, Amenable to Cl2	Distillation, Spectro. Manual	EPA 335.1	Ref. 1
Fluoride, Total (for NPDES)	Distillation Electrode, Manual	EPA 340.2	Ref. 1
Fluoride, (GWM)	Electrode, Manual	EPA 340.2	Ref. 1
Hardness, Total as CaCl	Titrimetric, EDTA	EPA 130.2	Ref. 1
Hardness, (Carbonate Hardness)*	Titrimetric, EDTA	SM 2330 A	Ref. 2
Hexavalent Chromium (Wastewater)	0.45um Filtration, Spectro. DPC	SM 3500 Cr-D	Ref. 2
Hexavalent Chromium (Ground Water)	0.45um Filt, Spectro. DPC (NJ Mod)	SW846 7196 A, 7/92	Ref. 4
Kjeldahl Nitrogen (TKN-N)	Digest, Distillation, Titration	EPA 351.3	Ref. 1
Nitrate (NO3-N)	Colorimetric, Brucine Sulfate	EPA 352.1	Ref. 1
Nitrite NO2-N	Spectrophotometric, Manual	EPA 354.1	Ref. 1
Oil & Grease, Tot. Recoverable	Extraction, (Freon)Gravimetric	EPA 413.1	Ref. 1
Oil & Grease, (HEM)**	Hexane Extractable Material Gravimetric	EPA 1664	Ref. 3
Oil & Grease, (IR) *	Extraction, (Freon) IR	EPA	Ref. 1
Organic Carbon, TOC	Oxidation, ND-IR	EPA 415.1	Ref. 1
Organic Nitrogen, Total (TON)	(TKN-N minus NH3-N)	EPA 351.1,2,3	Ref. 1
Ortho Phosphate (o-PO4-P)	Ascorbic Acid, 2 Reagent Man.	EPA 365.3	Ref. 1
Phosphorus, Total (T-PO4-P)	Persulfate Digest, Ascorbic 2 Reagent	EPA 365.2 &3	Ref. 1
Phenolics, Total Recoverable	Distillation, Spectro, 4AAP, Man	EPA 420.1	Ref. 1
TPHC Total Petroleum Hydrocarbons	Extraction (Freon) IR	EPA 418.1	Ref. 2
(SGT-HEM) Petroleum Hydrocarbons**	Silica Gel Treated N-Hexane Ext Mat Grav	EPA 1664	Ref. 3
Total Solids, TS (Tot. Residue)	Gravimetric, @ 103-105°C	EPA 160.3	Ref. 1
Total Dissolved Solids (TDS)	Gravimetric, @ 180 °C	EPA 160.1	Ref. 1
Total Suspended Solids (TSS)	Gravimetric, @ 103-105°C	EPA 160.2	Ref. 1
Settleable Solids (SS) (Volumetric)	Imhoff Cone Volumetric	EPA 160.5	Ref. 1
Volatile Solids (VS)	Gravimetric @ 550 °C	EPA 160.4	Ref. 1
Total Mineral Solids (TMS)	Gravimetric @ 550 °C	SM 2540 G	Ref. 2
Salinity	Electrical Conductivity	SM 2520 B	Ref.2
Silica - Dissolved	Colorimetric, 0.45um Filt, Man	EPA 370.1	Ref. 1
Specific Conductance	Wheatstone Bridge @ 25°C	EPA 120.1	Ref. 1
Sulfate (SO4)	Turbidimetric BACL2	EPA 375.4	Ref. 1
Sulfide (S)	Titrimetric, Iodine	EPA 376.1	Ref. 1
Surfactants (MBAS)	Chloroform Ext, Methylene Blue	SM 5540 C	Ref. 2
Turbidity (NTU's)	Nephelometric	EPA 180.1	Ref. 1
ANALYZE IMMEDIATELY INORGANIC ANALYSES			
Residual Chlorine	Direct Titr. Iodine Starch End Pt.	EPA 330.3	Ref. 1
pH (Hydrogen Ion)	Electrometric	EPA 150.1	Ref. 1
Dissolved Oxygen	Membrane Electrode & Winkler Titr.	EPA 360.1&2	Ref. 1
Sulfite (SO3)	Titrimetric, Iodine-Iodate	EPA 377.1	Ref. 1
Temperature, °C	Thermometric	EPA 170.1	Ref. 1

Notes: * Method Not Approved 40CFR136 Test Procedures for NPDES. **Currently Approved as ATP, USEPA Region II.

REFERENCES:
1. USEPA, Chemical Methods for Analysis of Water & Wastes, EPA 600-4-79-020, 1979, Rev. March 1983.
2. APHA, 1992, Standard Methods for the Examination of Water & Wastewater, 18th. Ed., 1992
3. USEPA, Method 1664, HEM & SGT-HEM by Extraction and Gravimetry, EPA-821-B-94-004b, 4/95.
4. EPA SW846, Test Methods for Evaluating Solid Waste, Physical & Chemical Methods, 3rd Ed. Final Update IIB, January 1995, and "NJDEPE Modified Method 7196A, SW846 3rd Ed., Chromium, Hexavalent (Colorimetric)" DRAFT, Aug. 14, 1992.

LABORATORY CHRONICLE

ANALab INC. 206 Campus Plaza II, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111. Fax: (908) 225-4110

LABORATORY CHRONICLE
SEMIVOLATILE ORGANICS BY GC/MS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT:GIBSON & CUSHMAN

DATE RECEIVED:12/01/97

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLING DATE	EXTRACTION DATE	DATE ANALYZED	ANALYST
97-12-0001-001	SB-1	12/01/97	12/02/97	12/04/97	RS
97-12-0001-002	GW-1	12/01/97	12/02/97	12/03/97	RS
97-12-0001-004	SB-2	12/01/97	12/02/97	12/04/97	RS
97-12-0001-005	SB-3	12/01/97	12/02/97	12/04/97	RS
97-12-0001-006	GW-3	12/01/97	12/02/97	12/02/97	RS
97-12-0001-007	SB-4	12/01/97	12/02/97	12/04/97	RS
97-12-0001-008	GW-4	12/01/97	12/02/97	12/04/97	RS
97-12-0001-009	SB-5	12/01/97	12/02/97	12/02/97	RS
97-12-0001-010	SB-6	12/01/97	12/02/97	12/04/97	RS

..VOA

ANALab INC. 705 Carnegie Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

LABORATORY CHRONICLE
SEMIVOLATILE ORGANICS BY GC/MS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT:GIBSON & CUSHMAN

DATE RECEIVED:12/01/97

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLING DATE	EXTRACTION DATE	DATE ANALYZED	ANALYST
97-12-0001-001	SB-1	12/01/97	12/15/97	12/23/97	RS
97-12-0001-004	SB-2	12/01/97	12/15/97	12/23/97	RS
97-12-0001-005	SB-3	12/01/97	12/15/97	12/23/97	RS
97-12-0001-010	SB-6	12/01/97	12/15/97	12/24/97	RS

lcSVOA

ANALAB INC. 208 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel (908) 225-4111, Fax (908) 225-4110

LABORATORY CHRONICLE
VOLATILE ORGANIC ANALYSIS BY GC (METHOD 8021)

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT:GIBSON & CUSHMAN

DATE RECEIVED:12/01/97

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLING DATE	EXTRACTION DATE	DATE ANALYZED	ANALYST
97-12-0001-001	SB-1	12/01/97	N/A	12-03&04-97	MP
97-12-0001-002	GW-1	12/01/97	N/A	12-03-97	MP
97-12-0001-004	SB-2	12/01/97	N/A	12-03&04-97	MP
97-12-0001-005	SB-3	12/01/97	N/A	12-03&04-97	MP
97-12-0001-006	GW-3	12/01/97	N/A	12-03-97	MP
97-12-0001-007	SB-4	12/01/97	N/A	12-04-97	MP
97-12-0001-008	GW-4	12/01/97	N/A	12-03-97	MP
97-12-0001-009	SB-5	12/01/97	N/A	12-03-97	MP
97-12-0001-010	SB-6	12/01/97	N/A	12-03&04-97	MP

lc8021M

ANALAB INC. 208 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111. Fax: (908) 225-4110

LABORATORY CHRONICLE
LEAD

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT:GIBSON & CUSHMAN DATE RECEIVED:12/01/97

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLING DATE	DIGESTION DATE	DATE ANALYZED	ANALYST
97-12-0001-002	GW-1	12/01/97	12/10/97	12/10/97	DR/ED
97-12-0001-003	GW-1 X-TRA	12/01/97	12/10/97	12/10/97	DR/ED
97-12-0001-006	GW-3	12/01/97	12/10/97	12/10/97	DR/ED
97-12-0001-008	GW-4	12/01/97	12/10/97	12/10/97	DR/ED

lc213

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4141, Fax: (908) 225-4110

LABORATORY CHRONICLE
TCLP METALS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT:GIBSON & CUSHMAN

DATE RECEIVED:12/01/97

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION	SAMPLING DATE	LEACHING DATE	DIGESTION DATE	ANALYSIS DATE	ANALYST
97-12-0001-001	SB-1	12/01/97	12/10/97	12/11/97	12/11/97	DR/ED
97-12-0001-002	GW-1	12/01/97	12/10/97	12/11/97	12/11/97	DR/ED
97-12-0001-003	GW-1 X-TRA	12/01/97	12/10/97	12/11/97	12/11/97	DR/ED
97-12-0001-004	SB-2	12/01/97	12/10/97	12/11/97	12/11/97	DR/ED
97-12-0001-005	SB-3	12/01/97	12/10/97	12/11/97	12/11/97	DR/ED
97-12-0001-006	GW-3	12/01/97	12/10/97	12/11/97	12/11/97	DR/ED
97-12-0001-007	SB-4	12/01/97	12/10/97	12/11/97	12/11/97	DR/ED
97-12-0001-008	GW-4	12/01/97	12/10/97	12/11/97	12/11/97	DR/ED
97-12-0001-009	SB-5	12/01/97	12/10/97	12/11/97	12/11/97	DR/ED
97-12-0001-010	SB-6	12/01/97	12/10/97	12/11/97	12/11/97	DR/ED

e205

ANALAD INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111. Fax: (908) 225-4110

LABORATORY CHRONICLE
TOTAL RCRA METALS
+ COPPER & ZINC

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT:GIBSON & CUSHMAN

DATE RECEIVED:12/01/97

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLING DATE	DIGESTION DATE	DATE ANALYZED	ANALYST
97-12-0001-002	GW-1	12/01/97	12/02,03/97	12/03,04/97	DR/ED
97-12-0001-003	GW-1 X-TRA	12/01/97	12/02,03/97	12/03,04/97	DR/ED
97-12-0001-006	GW-3	12/01/97	12/02,03/97	12/03,04/97	DR/ED
97-12-0001-008	GW-4	12/01/97	12/02,03/97	12/03,04/97	DR/ED

lc206

ANALab INC. 206 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111, Fax: (908) 225-4110

LABORATORY CHRONICLE
TOTAL RCRA METALS
+ COPPER & ZINC

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT:GIBSON & CUSHMAN

DATE RECEIVED:12/01/97

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLING DATE	DIGESTION DATE	DATE ANALYZED	ANALYST
97-12-0001-001	SB-1	12/01/97	12/02,04/97	12/03,04/97	DR/ED
97-12-0001-004	SB-2	12/01/97	12/02,04/97	12/03,04/97	DR/ED
97-12-0001-005	SB-3	12/01/97	12/02,04/97	12/03,04/97	DR/ED
97-12-0001-007	SB-4	12/01/97	12/02,04/97	12/03,04/97	DR/ED
97-12-0001-009	SB-5	12/01/97	12/02,04/97	12/03,04/97	DR/ED
97-12-0001-010	SB-6	12/01/97	12/02,04/97	12/03,04/97	DR/ED

206

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111. Fax: (908) 225-4110

LABORATORY CHRONICLE
TOTAL DISSOLVED SOLIDS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT:GIBSON & CUSHMAN

DATE RECEIVED:12/01/97

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLING DATE	EXTRACTION DATE	DATE ANALYZED	ANALYST
97-12-0001-002	GW-1	12/01/97	N/A	12-2-97	MC
97-12-0001-006	GW-3	12/01/97	N/A	12-2-97	MC
97-12-0001-008	GW-4	12/01/97	N/A	12-2-97	MC

.c143

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LABORATORY CHRONICLE
CHLORIDE

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT:GIBSON & CUSHMAN

DATE RECEIVED:12/01/97

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLING DATE	EXTRACTION DATE	DATE ANALYZED	ANALYST
97-12-0001-002	GW-1	12/01/97	N/A	12-2-97	DM
97-12-0001-006	GW-3	12/01/97	N/A	12-2-97	DM
97-12-0001-008	GW-4	12/01/97	N/A	12-2-97	DM

lc152

ANALab inc. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

LABORATORY CHRONICLE
PERCENT SOLIDS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT:GIBSON & CUSHMAN

DATE RECEIVED:12/01/97

ABORATORY AMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLING DATE	EXTRACTION DATE	DATE ANALYZED	ANALYST
12-0001-001	SB-1	12/01/97	N/A	12-3-97	RM
12-0001-004	SB-2	12/01/97	N/A	12-3-97	RM
12-0001-005	SB-3	12/01/97	N/A	12-3-97	RM
12-0001-007	SB-4	12/01/97	N/A	12-3-97	RM
12-0001-009	SB-5	12/01/97	N/A	12-3-97	RM
12-0001-010	SB-6	12/01/97	N/A	12-3-97	RM

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LABORATORY CHRONICLE

SAMPLE MANAGEMENT

CLIENT NAME: Roux Associates LAB PROJECT #: 97-12-0001

CLIENT PROJECT: Gibson & Cushman SAMPLE TEMP. ON RECEIPT: 2.7

RAS#: _____ SAMPLE RECEIVE DATE: 12/1/97

SAMPLE DATE(S): 12/1/97 ANALAB COOLER ID: N/A

SAMPLE MATRIX: (H2O) SOIL _____

CONDITION OF SAMPLES RECEIVED BY LAB	NA	YES	NO	COMMENT
COOLER SEAL INTACT	NA	(YES)	NO	
SAMPLES RECEIVED COOL (2-6 C)	NA	(YES)	NO	
SAMPLES RECEIVED INTACT	NA	(YES)	NO	
SAMPLE LABELS MATCH CHAIN OF CUSTODY	NA	(YES)	NO	
SAMPLES REC. IN EPA ACCEPTABLE CONTAINERS	NA	(YES)	NO	
VOA'S PRESERVED AS PER LABEL OR CUSTODY	NA	(YES)	NO	
VOA'S W/OUT BUBBLES, SEPTA TFE SIDE DOWN	NA	(YES)	NO	
SAMPLES DELIVERED VIA ANAlab PICK UP	NA	(YES)	NO	
SAMPLES DELIVERED VIA CLIENT DROP OFF	NA	YES	(NO)	
AIRBILL# PRESENT, IF BY COMMON CARRIER	NA	YES	(NO)	
SUBCONTRACT ANALYSIS REQUIRED	NA	YES	(NO)	

PRESERVATION CHECKS PERFORMED FOR AQUEOUS SAMPLES REQUIRING pH ADJUSTMENT

NA = IF NOT APPLICABLE

LAB SAMPLE ID	FRACTION	pH MEASURED	OK	COMMENT
002	Metals	<2	✓	HNO3
003	Metals	<2	✓	HNO3
006	Metals	<2	✓	HNO3
008	Metals	<2	✓	HNO3

PERSON COMPLETING THIS FORM: V Haviland DATE: 12/1/97

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CASE NARRATIVE/NONCONFORMANCE SUMMARY

SEMIVOLATILE ANALYSIS NON-CONFORMANCE SUMMARY
METHOD SW846 8270C S121597301 8270 SOIL
S120297301 8270 SOIL

Project Number 9712-001 Batch S120297301 8270 water

Matrix: Aqueous Low Level Soil Med Level Soil

	No	Yes
1. Chromatograms Labeled/Compounds Identified	___	✓
2. BFTPP Meets Tune Criteria specified in method	___	✓
3. GC/MS Tune Frequency -Performed every 12 hours	___	✓
4. GC/MS Initial Calibration performed before sample analysis	___	✓
a. SPCCs monitored to meet the minimum RF criteria of 0.05 for N-nitroso-di-n-propylamine, hexachlorocyclopentadiene, 2,4-Dinitrophenol and 4-Nitrophenol?	___	✓
b. Calibration Check Compounds (CCC) to meet the < 30% RSD for Acenaphthene, 1,4-Dichlorobenzene, Hexachlorobutadiene, N-nitrosodiphenylamine, Di-n-octyl phthalate, Fluoranthene, Benzo(a)pyrene, 4-Chloro-3-methylphenol, 2,4-Dichlorophenol, 2-Nitrophenol, Phenol, Pentachlorophenol and 2,4,6-Trichlorophenol.	___	✓
c. If the %RSD of any other compound is > 15% is a calibration curve constructed using first or second order linear regression with a correlation coefficient of ≥ 0.99?	___	✓
5. GC/MS Continuing Calibration Check performed once every 12 hours.	___	✓
a. Is the minimum response factor for all SPCCs met as described above?	___	✓
b. Is the % RPD for all CCC compounds < 20%?	___	✓
c. Does the RRT of each internal standard in the calibration check standard agree within 30 seconds from the last calibration check standard?	___	✓
6. Are all compounds in the Blank ≤ respective RL?	___	✓

SEMIVOLATILE ANALYSIS NON-CONFORMANCE SUMMARY
METHOD SW846 8270C

	No	Yes
If not, list the compounds that are above the RL		
7. Surrogate Recoveries Meet Criteria		

If not met, list those samples and their recoveries which fall outside the acceptable range:

Base/Neutrals	Water	Soil
Nitrobenzene-d5	(35-114)	(23-120)
2-Fluorobiphenyl	(43-116)	(30-115)
Terphenyl-d14	(33-141)	(18-137)

Sample #2 (F6595) 23% Sample #6 (F6582) 26%

Acid Fraction		
2-Fluorophenol	(21-100)	(25-121)
Phenol-d5	(10-94)	(24-113)
2,4,6-Tribromophenol	(10-123)	(19-122)

If not met, were the samples reanalyzed		✓

SEMIVOLATILE ANALYSIS NON-CONFORMANCE SUMMARY
METHOD SW846 8270C

12. Additional Comments:

13. Library Searches (If Applicable)
COMPOUND(s):
_____ Phthalates
_____ Unknown (RT _____)

_____ was found in a library search of your sample(s). It was found to be present in the associated Method Blank(s). List the blank and associated samples.

_____ was found in a library search of your sample(s). It was not found to be present in the associated Method Blank(s). List the associated samples.

Analyst: _____ Date: 12-31-97

QC Coordinator: _____ Date: 1/2/98

ANALab INC. 325 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111. Fax: (908) 225-4110

NONCONFORMANCE SUMMARY

PROJECT: 97-12-001

Parameter: 8270 Stars List

Sample(s): # 1, 4, 5, 7, 10

The sample(s) was analyzed using a reduced weight or volume of sample, due to the reasons indicated below. This resulted in an elevation of the Method Detection Limit (MDL) attained for this sample(s) analysis.

_____ High Levels of Target Compound(s) Present

_____ High Levels of Non-Target Compound(s) Present

__✓__ Matrix Interference present

_____ Repeated Surrogate failure due to matrix

Post-it® Fax Note 7671	Date 3/5/98	# of pages ▶
To S. Elbaum	From C. McGrath / J. Kennedy	
Co./Dept.	Co.	
Phone #	Phone # ATech. 1	
Fax # (203) 462-7599	Fax # P.31 – P.59	

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GC ANALYSIS CONFORMANCE / NON-CONFORMANCE SUMMARY

PROJECT ID: 9712001

		No	Yes
1.	GC Chromatograms Labeled with Compounds Identified (including Field and Laboratory QC Samples)		✓
2.	Initial and Continuing Calibration Summaries		✓
3.	Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis.		✓
4.	Continuing Calibration Requirements Met	✓	
5.	Retention Time Shift Meets Criteria (if applicable)		NA
6.	Blank Free of Contamination; If not List Compounds and Amounts present.		✓
7.	Extraction Hold Time Met. Comments:		NA
8.	Analysis Hold Time Met. Comments:		✓
9.	Surrogate Recoveries Meet Criteria - (If not, list compounds & their recoveries outside of limits) If not met, calculations were checked, results are qualified.	✓	
10.	Matrix Spike / Matrix Spike Duplicate Recoveries and % RPD's meet Criteria. If not list compounds and recoveries outside of QC limits.	✓	

6.
a. GC Voa Fraction
b. GC Pesticide
c. GC PCB Fraction
d. GC Extractable
e. GC DAI Voa

9.
a. GC Voa Fraction see 2nd page
b. GC Pesticide
c. GC PCB Fraction
d GC Extractable
e. GC DAI Voa

10.
a. GC Voa Fraction see 2nd page
b. GC Pesticide
c. GC PCB Fraction
d. GC Extractable
e. GC DAI Voa

Additional Comments:

Lab or QC Coordinator: [signature] 1/7/98 Date: 12-10-97

Q&A A:\QCGCNCS

ANALab INC. 205 Campus Plaza 1, Bartlett Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

GC ANALYSIS CONFORMANCE / NON-CONFORMANCE SUMMARY

PROJECT ID: 9712001

Additional Comments:

ALL samples with Low Surrogate have been rerun to confirm Low surrogate due to sample interference

Check standards V120302 four compounds outside QC Limit

V120315 one

V120401 two

V120414 two

V120801 one

9712141-4 MS compounds outside limits due to sample matrix

Lab or QC Coordinator: K Knells 1/7/98 Date: 12-5-97

Q&A A:\QCGCNCS

(Lead analysis)

METALS ANALYSIS NON-CONFORMANCE SUMMARY

Project Number 97-12-0001 Batch: 797AA

	No	Yes
1. Initial Calibration Curves have a Corr Coeff ≥ 0.995?		✓
2. Initial Calibration Verification (ICV) within 90-110%?		✓
a. Initial Calibration Verification (ICV) for Mercury 95-105%		✓
3. Continuing Calibration Verification (CCV) Standard within 90-110% of the ICAL.		✓
4. Continuing Calibration Blank (CCB) < MDL, if not list all elements that > MDL in the associated samples.		✓
5. Serial Dilution Summary Present (if applicable)		✓
6. QC Blank Spike (Lab Control Sample) Recoveries between 80-120% recovery for all elements.		✓
7. Matrix Spike/Matrix Spike Duplicate between 75-125% recovery and RPD's < 20%. If not list compounds and recoveries outside of QC limits.	✓	
8. Sample Duplicate Summary Present and RPD < 20%.		✓
9. Digestion and analysis hold time met.		✓
10. Analytical Post spike (APS) between 85-115% recovery and RPD's < 20%. If not list compounds and recoveries outside of QC limits.	✓	

Item 7: Pb = 130% ms

Item 10: APS Pb = 136%

(Lead re-analysis)

METALS ANALYSIS NON-CONFORMANCE SUMMARY

	No	Yes
11. If the sample concentration < MDL was the APS > 40%? If the APS < 40%, was the APS diluted?	___	✓

12. Additional Comments:

Analyst/Dept Mgr: Dawnta Roquemore Date: 12/11/97

Lab Mgr/QC Coordinator: K Knisell Date: 1/7/98

Samples # 2, 3, 68

METALS ANALYSIS NON-CONFORMANCE SUMMARY

Project Number 97-12.0001 Batch: 782AA, 219 Hg

	No	Yes
1. Initial Calibration Curves have a Corr Coeff ≥ 0.995?	—	✓
2. Initial Calibration Verification (ICV) within 90-110%?	—	✓
a. Initial Calibration Verification (ICV) for Mercury 95-105%	—	✓
3. Continuing Calibration Verification (CCV) Standard within 90-110% of the ICAL.	—	✓
4. Continuing Calibration Blank (CCB) < MDL, if not list all elements that > MDL in the associated samples.	—	✓
5. Serial Dilution Summary Present (if applicable)	—	✓
6. QC Blank Spike (Lab Control Sample) Recoveries between 80-120% recovery for all elements.	—	✓
7. Matrix Spike/Matrix Spike Duplicate between 75-125% recovery and RPD's < 20%. If not list compounds and recoveries outside of QC limits. Se MS/MSD 72.40/59.60%	✓	—
8. Sample Duplicate Summary Present and RPD < 20%.	✓	—
9. Digestion and analysis hold time met.	—	✓
10. Analytical Post spike (APS) between 85-115% recovery and RPD's < 20%. If not list compounds and recoveries outside of QC limits. Se 125.00%.	—	—

Samples #2, 3, 6, 8

METALS ANALYSIS NON-CONFORMANCE SUMMARY

	No	Yes
11. If the sample concentration < MDL was the APS > 40%? If the APS < 40%, was the APS diluted?	—	✓

12. Additional Comments:

Analyst/Dept Mgr: _____ Date: 12/09/97

Lab Mgr/QC Coordinator: _____ Date: 1/2/98

Pb, Hg, Zn

METALS ANALYSIS NON-CONFORMANCE SUMMARY

Project Number 97-12-0001 Batch: 801 AA

	No	Yes
1. Initial Calibration Curves have a Corr Coeff ≥ 0.995?	___	✓
2. Initial Calibration Verification (ICV) within 90-110%?	___	✓
a. Initial Calibration Verification (ICV) for Mercury 95-105%	___	✓
3. Continuing Calibration Verification (CCV) Standard within 90-110% of the ICAL.	___	✓
4. Continuing Calibration Blank (CCB) < MDL, if not list all elements that > MDL in the associated samples.	___	✓
5. Serial Dilution Summary Present (if applicable)	___	✓
6. QC Blank Spike (Lab Control Sample) Recoveries between 80-120% recovery for all elements.	___	✓
7. Matrix Spike/Matrix Spike Duplicate between 75-125% recovery and RPD's < 20%. If not list compounds and recoveries outside of QC limits.	___	✓
8. Sample Duplicate Summary Present and RPD < 20%.	___	✓
9. Digestion and analysis hold time met.	___	✓
10. Analytical Post spike (APS) between 85-115% recovery and RPD's < 20%. If not list compounds and recoveries outside of QC limits.	___	✓

Samples # 1,4,5,7,9,10

METALS ANALYSIS NON-CONFORMANCE SUMMARY

Project Number 97-12-0001 Batch: 781AA/220Hg

	No	Yes
1. Initial Calibration Curves have a Corr Coeff ≥ 0.995?	___	✓
2. Initial Calibration Verification (ICV) within 90-110%?	___	✓
a. Initial Calibration Verification (ICV) for Mercury 95-105%	___	✓
3. Continuing Calibration Verification (CCV) Standard within 90-110% of the ICAL.	___	✓
4. Continuing Calibration Blank (CCB) < MDL, if not list all elements that > MDL in the associated samples.	___	✓
5. Serial Dilution Summary Present (if applicable)	___	✓
6. QC Blank Spike (Lab Control Sample) Recoveries between 80-120% recovery for all elements.	___	✓
7. Matrix Spike/Matrix Spike Duplicate between 75-125% recovery and RPD's < 20%. If not list compounds and recoveries outside of QC limits.	___	✓
8. Sample Duplicate Summary Present and RPD < 20%.	___	✓
9. Digestion and analysis hold time met.	___	✓
10. Analytical Post spike (APS) between 85-115% recovery and RPD's < 20%. If not list compounds and recoveries outside of QC limits.	___	✓

Pb, Hg, Zn

METALS ANALYSIS NON-CONFORMANCE SUMMARY

	No	Yes
11. If the sample concentration < MDL was the APS > 40%? If the APS < 40%, was the APS diluted?	___	✓

12. Additional Comments:

Analyst/Dept Mgr: [signature] Date: 12/15/97

Lab Mgr/QC Coordinator: [signature] Date: 1/7/98

Samples #1,4,5,7,9,10

METALS ANALYSIS NON-CONFORMANCE SUMMARY

	No	Yes
11. If the sample concentration < MDL was the APS > 40%? If the APS < 40%, was the APS diluted?	___	✓

12. Additional Comments:

Analyst/Dept Mgr: Danuta Rzeszutko Date: 12/5/97

Lab Mgr/QC Coordinator: [signature] Date: 12/5/97

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WET CHEMISTRY ANALYSIS CONFORMANCE / NON-CONFORMANCE SUMMARY

PROJECT ID: 97-12-0001

TEST PARAMETER: TDS

	No	Yes
1. All Results Reported and in the appropriate units	___	✓
2. Initial and Continuing Calibration Summaries present for all applicable Wet Chemistry Analysis.	N/A	
3. Calibration - Initial Calibration performed within 90 days before sample analysis and continuing calibration performed on the day of analysis.	N/A	
4. Continuing Calibration Requirements Met	N/A	
5. Blank Free of Contamination (eg. <MDL) If not then list compounds and the amounts present at or above	___	✓
6. Extraction Hold Time Met. Comments:	___	✓
7. Analysis Hold Time Met. Comments:	___	✓
8. Matrix Spike / Matrix Spike Duplicate Recoveries and RPDs meet Criteria. If not, list compounds and recoveries outside of QC limits.	N/A	
9. QC Blank Spike (QC Check Sample) Analysis Recovery within QC Limits	___	✓

Additional Comments: _____

Lab or QC Coordinator: K Knowles Date: 1/26/98

Q&A A:\QCWCNCS

ANALAD INC. 208 Campus Plaza 1, Raritan Center, Edison NJ 08837 Tel: (908) 225-4[illegible] Fax: (908) 225-4[illegible]

WET CHEMISTRY ANALYSIS CONFORMANCE / NON-CONFORMANCE SUMMARY

PROJECT ID: 97-12-0001

TEST PARAMETER: Chloride

		No	Yes
1.	All Results Reported and in the appropriate units		✓
2.	Initial and Continuing Calibration Summaries present for all applicable Wet Chemistry Analysis.	N/A	
3.	Calibration - Initial Calibration performed within 90 days before sample analysis and continuing calibration performed on the day of analysis.	N/A	
4.	Continuing Calibration Requirements Met	N/A	✓
5.	Blank Free of Contamination; (eg. <MDL) If not then list compounds and the amounts present at or above the reported MDL. _____		✓
6.	Extraction Hold Time Met. Comments: _____		✓
7.	Analysis Hold Time Met. Comments: _____		✓
8.	Matrix Spike / Matrix Spike Duplicate Recoveries and % RPD's meet Criteria. If not, list compounds and recoveries outside of QC limits. _____	N/A	
9.	QC Blank Spike (QC Check Sample) Analysis Recovery within QC Limits		✓

Additional Comments: _____

Lab or QC Coordinator: K Lmalla Date: 1/7/98

Q&A A:\QCWCNCS

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TABULATED ANALYTICAL RESULTS

GC/MS EXTRACTABLE ORGANICS

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

ANALYTICAL REPORT FLAGS:

U Compound was analyzed but not detected. The number preceeding the analytical flag " U " is the minimum detection limit for the sample.

J Compound was detected but below the Method Detected Limits (MDL). Quantitation is approximate.

B Compound was found to be present in the Method Blank.

E Compound concentration exceeded the calibration range of the GC/MS instrument. Secondary dilution was required.

D Compound was identified in the analysis at a secondary dilution factor.

BMDL Compound was detected but below the Method Detection Limit (MDL). Quantitation is approximate.

Compounds detected for Soil/Solid Analysis are reported on a dry weight basis.

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Polynuclear Aromatic Hydrocarbons - Aqueous Matrix

CLIENT :	ROUX ASSOCIATES INC	LAB SAMPLE ID :	97-12-001-8
SAMPLE ID:	GW-4	DATE SAMPLED:	12/01/97
PROJECT :	GIBSON & CUSHMAN	DATE RECEIVED:	12/01/97
SAMPLE VOL. :	1L	DATE ANALYZED:	12/02/97
DATA FILE :	>F6583	DIL. FACT :	1.00
EXTRACT/DATE :	12/2/97	ANALYST:	AS
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/L	Q	PQL
91-20-3	NAPHTHALENE	U		10
83-32-9	ACENAPHTHENE	4	J	10
86-73-7	FLUORENE	U		10
85-01-8	PHENANTHRENE	1	J	10
120-12-7	ANTHRACENE	U		10
206-44-0	FLUORANTHENE	U		10
129-00-0	PYRENE	U		10
56-55-3	BENZO (A) ANTHRACENE	U		10
218-01-9	CHRYSENE	U		10
205-99-2	BENZO (B) FLUORANTHENE	U		10
207-08-9	BENZO (K) FLUORANTHENE	U		10
50-32-8	BENZO (A) PYRENE	U		10
193-39-5	INDENO (1,2,3-CD) PYRENE	U		10
53-70-3	DIBENZO (A,H) ANTHRACENE	U		10
191-24-2	BENZO (GHI) PERYLENE	U		10

QUALIFIERS

J Indicates detected below MDL, Estimated Value
U Indicates compound not detected
B Indicates compound also present in blank
E Exceeds Calibration Range, Estimated Value

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111, Fax: (908) 225-4110

Polynuclear Aromatic Hydrocarbons - Non-Aqueous Matrix

CLIENT :	ROUX ASSOCIATES INC	LAB SAMPLE ID :	97-12-001-9
SAMPLE ID:	SB-5	DATE SAMPLED:	12/01/97
PROJECT :	GIBSON & CUSHMAN	DATE RECEIVED:	12/01/97
SAMPLE VOL. :	30g	DATE ANALYZED:	12/02/97
DATA FILE :	>F6584	DIL. FACT :	.03
EXTRACT/DATE :	12/2/97	ANALYST:	AS
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/KG	Q	PQL
91-20-3	NAPHTHALENE	U		380
83-32-9	ACENAPHTHENE	U		380
86-73-7	FLUORENE	U		380
85-01-8	PHENANTHRENE	U		380
120-12-7	ANTHRACENE	U		380
206-44-0	FLUORANTHENE	99	J	380
129-00-0	PYRENE	90	J	380
56-55-3	BENZO (A) ANTHRACENE	46	J	380
218-01-9	CHRYSENE	48	J	380
205-99-2	BENZO (B) FLUORANTHENE	U		380
207-08-9	BENZO (K) FLUORANTHENE	U		380
50-32-8	BENZO (A) PYRENE	U		380
193-39-5	INDENO (1,2,3-CD) PYRENE	U		380
53-70-3	DIBENZO (A,H) ANTHRACENE	U		380
191-24-2	BENZO (GHI) PERYLENE	U		380

QUALIFIERS

J Indicates detected below MDL, Estimated Value
U Indicates compound not detected
B Indicates compound also present in blank
E Exceeds Calibration Range, Estimated Value

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111. Fax: (908) 225-4110

Polynuclear Aromatic Hydrocarbons - Non-Aqueous Matrix

CLIENT :	ROUX ASSOCIATES INC	LAB SAMPLE ID :	97-12-001-10
SAMPLE ID:	SB-6	DATE SAMPLED:	12/01/97
PROJECT :	GIBSON & CUSHMAN	DATE RECEIVED:	12/01/97
SAMPLE VOL. :	30G TO .5ML FV(GPC)	DATE ANALYZED:	12/24/97
DATA FILE :	>F6831	DIL. FACT :	.03
EXTRACT/DATE :	12/15/97	ANALYST:	RB
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/KG	Q	MDL
91-20-3	NAPHTHALENE	U		380
208-96-8	ACENAPHTHYLENE	U		380
83-32-9	ACENAPHTHENE	U		380
86-73-7	FLUORENE	U		380
85-01-8	PHENANTHRENE	53	J	380
120-12-7	ANTHRACENE	U		380
206-44-0	FLUORANTHENE	210	J	380
129-00-0	PYRENE	250	J	380
56-55-3	BENZO (A) ANTHRACENE	U		380
218-01-9	CHRYSENE	U		380
205-99-2	BENZO (B) FLUORANTHENE	U		380
207-08-9	BENZO (K) FLUORANTHENE	U		380
50-32-8	BENZO (A) PYRENE	U		380
193-39-5	INDENO (1,2,3-CD) PYRENE	U		380
53-70-3	DIBENZO (A,H) ANTHRACENE	U		380
191-24-2	BENZO (GHI) PERYLENE	U		380

QUALIFIERS

J Indicates detected below MDL, Estimated Value
U Indicates compound not detected
B Indicates compound also present in blank
E Exceeds Calibration Range, Estimated Value

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111. Fax: (908) 225-4110

Polynuclear Aromatic Hydrocarbons - Non-Aqueous Matrix

CLIENT :	ROUX ASSOCIATES INC	LAB SAMPLE ID :	97-12-001-10
SAMPLE ID:	SB-6	DATE SAMPLED:	12/01/97
PROJECT :	GIBSON & CUSHMAN	DATE RECEIVED:	12/01/97
SAMPLE VOL. :	30g (1:2 Diln)	DATE ANALYZED:	12/04/97
DATA FILE :	>F6609	DIL. FACT :	.015
EXTRACT/DATE :	12/2/97	ANALYST:	AS
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/KG	Q	PQL
91-20-3	NAPHTHALENE	U		760
83-32-9	ACENAPHTHENE	U		760
86-73-7	FLUORENE	U		760
85-01-8	PHENANTHRENE	U		760
120-12-7	ANTHRACENE	U		760
206-44-0	FLUORANTHENE	180	J	760
129-00-0	PYRENE	300	J	760
56-55-3	BENZO (A) ANTHRACENE	110	J	760
218-01-9	CHRYSENE	120	J	760
205-99-2	BENZO (B) FLUORANTHENE	120	J	760
207-08-9	BENZO (K) FLUORANTHENE	U		760
50-32-8	BENZO (A) PYRENE	90	J	760
193-39-5	INDENO (1,2,3-CD) PYRENE	U		760
53-70-3	DIBENZO (A,H) ANTHRACENE	U		760
191-24-2	BENZO (GHI) PERYLENE	U		760

QUALIFIERS

J Indicates detected below MDL, Estimated Value
U Indicates compound not detected
B Indicates compound also present in blank
E Exceeds Calibration Range, Estimated Value

AVALAB INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111. Fax (908) 225-4110

TABULATED ANALYTICAL RESULTS

GC VOLATILE ORGANICS

Post-it® Fax Note 7671	Date 3/5/98	# of pages ▶
To S. Elbeyer	From E. McGuckin / J. Kennedy	
Co./Dept.	Co.	
Phone #	Phone # Attach. 1	
Fax # (203) 462-7599	Fax # P. 60 - P. 88	

ANALYTICAL REPORT FLAGS:

U Compound was analyzed but not detected. The number proceeding the analytical flag "U" is the minimum attainable detection limit for the sample.

J Compound was detected but below the Method Detected Limits (MDL). Quantitation is approximate.

B Compound was found to be present in the Method Blank.

E Compound concentration exceeded the calibration range of the GC/MS instrument. Secondary dilution was required.

D Compound was identified in the analysis at a secondary dilution factor.

BMDL Compound was detected but below the Method Detection Limit (MDL). Quantitation is approximate.

Compounds detected for Soil/Solid Analysis are reported on a dry weight basis.

ANALAB INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

CLIENT ID: SB-1 DATE ANALYZED:12/03&04/97
SAMPLE: 97-12-0001-001 REVIEWED BY: MP

COMPOUND	RESULTS(UG/KG)	POL(UG/KG)
Dichlorodifluoromethane.....	ND	1.2
Chloromethane.....	ND	1.2
Vinyl Chloride.....	ND	1.2
Bromomethane.....	ND	1.2
Chloroethane.....	ND	1.2
Trichlorofluoromethane.....	ND	1.2
1,1-Dichloroethane.....	ND	1.2
Methylene Chloride.....	ND	1.2
t-1,2-Dichloroethylene.....	ND	1.2
2,2-DCPRA+Cis-1,2 Dichlethen.....	ND	2.3
Chloroform.....	ND	1.2
Bromochloromethane.....	ND	1.2
1,1-Dichloropropene.....	ND	1.2
1,2-Dichloroethane.....	ND	1.2
1,1,1-Trichloroethane.....	ND	1.2
Carbon Tetrachloride.....	ND	1.2
Benzene.....	ND	1.2
Trichloroethylene.....	ND	1.2
1,2-Dichloropropane.....	ND	1.2
Bromodichlorometh+Dibrmomet.....	ND	2.3
1,1,2-Trichloroethane.....	ND	1.2
Chlorodibromomethane.....	ND	1.2
1,2-Dibromoethane.....	ND	1.2
1,1,1,2-Tetrachloroethane.....	ND	1.2
Bromoform.....	ND	1.2
Toluene.....	ND	1.2
Tetrachloroethylene.....	ND	1.2
1,3-Dichloropropane.....	ND	1.2
Chlorobenzene.....	ND	1.2
Ethylbenzene.....	ND	1.2
m,P-Xylenes.....	ND	2.3
o-Xylene.....	ND	1.2

Analytical Report Flags:

U = NOT DETECTED
J = BELOW MDL
E = EXCEEDS CALIBRATION RANGE,ESTIMATED VALUE
B = DETECTED IN BLANK

ANALAD INC. 2C5 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel (908) 225-4111, Fax (908) 225-4110

TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

SAMPLE: 97-12-0001-001

DATE ANALYZED:12/03&04/97
REVIEWED BY: MP

COMPOUND	RESULTS(UG/KG)	POL(UG/KG)
Styrene	ND	1.2
Isopropylbenzene	ND	1.2
1,1,2,2,-Tetrachloroethane	ND	1.2
1,2,3-Trichloropropane	ND	1.2
Bromobenzene	ND	1.2
n-Propylbenzene	ND	1.2
2-Chlorotoluene+p-Ethyltoluene	ND	2.3
4-Chlorotoluene+135Trimetben	ND	2.3
Tert-Butylbenzene	ND	1.2
1,3 Dichlorobenzene	ND	1.2
Isopropyltoluene	ND	1.2
1,2,4-trimethylbenzene	ND	1.2
sec-Butylbenzene	ND	1.2
1,4-Dichlorobenzene	ND	1.2
n-Butylbenzene	ND	1.2
1,2-Dichlorobenzene	ND	1.2
1,2,4-Trichlorobenzene	ND	1.2
Naphthalene	ND	1.2
Hexachlorobutadiene	ND	1.2
1,2,3-Trichlorobenzene	ND	1.2
1,1 Dichloroethene	ND	1.2
cis-1,3-Dichloropropene	ND	1.2
trans-1,3-Dichloropropene	ND	1.2
1,2-Dibromo-3-chloropropane	ND	1.2

Analytical Report Flags
U = NOT DETECTED
J = BELOW MDL
E =EXCEEDS CALIBRATION RANGE, ESTIMATED VALUE

ANALAB INC. 205 Campus Plaza I-1, Raritan Center, Edison, NJ 08837. Tel. (908) 225-4111, Fax (908) 225-4110

TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

CLIENT ID: GW-1
SAMPLE: 97-12-0001-002

DATE ANALYZED:12/03/97
REVIEWED BY: MP

COMPOUND	RESULTS(UG/L)	POL(UG/L)
Dichlorodifluoromethane.....	ND	1.0
Chloromethane.....	ND	1.0
Vinyl Chloride.....	ND	1.0
Bromomethane.....	ND	1.0
Chloroethane.....	ND	1.0
Trichlorofluoromethane.....	ND	1.0
1,1-Dichloroethane.....	ND	1.0
Methylene Chloride.....	ND	1.0
t-1,2-Dichloroethylene.....	ND	1.0
2,2-DCPRA+Cis-1,2 Dichlethen.....	ND	2.0
Chloroform.....	ND	1.0
Bromochloromethane.....	ND	1.0
1,1-Dichloropropene.....	ND	1.0
1,2-Dichloroethane.....	ND	1.0
1,1,1-Trichloroethane.....	ND	1.0
Carbon Tetrachloride.....	ND	1.0
Benzene.....	ND	1.0
Trichloroethylene.....	ND	1.0
1,2-Dichloropropane.....	ND	1.0
Bromodichlorometh+Dibrmomet.....	ND	2.0
1,1,2-Trichloroethane.....	ND	1.0
Chlorodibromomethane.....	ND	1.0
1,2-Dibromoethane.....	ND	1.0
1,1,1,2-Tetrachloroethane.....	ND	1.0
Bromoform.....	ND	1.0
Toluene.....	ND	1.0
Tetrachloroethylene.....	ND	1.0
1,3-Dichloropropane.....	ND	1.0
Chlorobenzene.....	ND	1.0
Ethylbenzene.....	ND	1.0
m,P-Xylenes.....	ND	2.0
o-Xylene.....	ND	1.0

Analytical Report Flags:

U = NOT DETECTED
J = BELOW MDL
E = EXCEEDS CALIBRATION RANGE,ESTIMATED VALUE
B = DETECTED IN BLANK

ANALAB INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

SAMPLE: 97-12-0001-002

DATE ANALYZED:12/03/97
REVIEWED BY: MP

COMPOUND	RESULTS(UG/L)	POL(UG/L)
Styrene	ND	1.0
Isopropylbenzene	ND	1.0
1,1,2,2,-Tetrachloroethane	ND	1.0
1,2,3-Trichloropropane	ND	1.0
Bromobenzene	ND	1.0
n-Propylbenzene	ND	1.0
2-Chlorotoluene+p-Ethyltoluene	ND	2.0
4-Chlorotoluene+135Trimetben	ND	2.0
Tert-Butylbenzene	ND	1.0
1,3 Dichlorobenzene	ND	1.0
Isopropyltoluene	ND	1.0
1,2,4-trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
n-Butylbenzene	13	1.0
1,2-Dichlorobenzene	ND	1.0
1,2,4-Trichlorobenzene	ND	1.0
Naphthalene	ND	1.0
Hexachlorobutadiene	ND	1.0
1,2,3-Trichlorobenzene	ND	1.0
1,1 Dichloroethene	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
1,2-Dibromo-3-chloropropane	ND	1.0

Analytical Report Flags
U = NOT DETECTED
J = BELOW MDL
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TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

CLIENT ID: SB-2 DATE ANALYZED:12/03&04/97
SAMPLE: 97-12-0001-004 REVIEWED BY: MP

COMPOUND	RESULTS(UG/KG)	POL(UG/KG)
Dichlorodifluoromethane.....	ND	1.1
Chloromethane.....	ND	1.1
Vinyl Chloride.....	ND	1.1
Bromomethane.....	ND	1.1
Chloroethane.....	ND	1.1
Trichlorofluoromethane.....	ND	1.1
1,1-Dichloroethane.....	ND	1.1
Methylene Chloride.....	ND	1.1
t-1,2-Dichloroethylene.....	ND	1.1
2,2-DCPRA+Cis-1,2 Dichlethen.....	ND	2.2
Chloroform.....	ND	1.1
Bromochloromethane.....	ND	1.1
1,1-Dichloropropene.....	ND	1.1
1,2-Dichloroethane.....	ND	1.1
1,1,1-Trichloroethane.....	ND	1.1
Carbon Tetrachloride.....	ND	1.1
Benzene.....	ND	1.1
Trichloroethylene.....	ND	1.1
1,2-Dichloropropane.....	ND	1.1
Bromodichlorometh+Dibrmomet.....	ND	2.2
1,1,2-Trichloroethane.....	ND	1.1
Chlorodibromomethane.....	ND	1.1
1,2-Dibromoethane.....	ND	1.1
1,1,1,2-Tetrachloroethane.....	ND	1.1
Bromoform.....	ND	1.1
Toluene.....	ND	1.1
Tetrachloroethylene.....	ND	1.1
1,3-Dichloropropane.....	ND	1.1
Chlorobenzene.....	ND	1.1
Ethylbenzene.....	ND	1.1
m,P-Xylenes.....	ND	2.2
o-Xylene.....	ND	1.1

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TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

SAMPLE: 97-12-0001-004

DATE ANALYZED:12/03&04/97
REVIEWED BY: MP

COMPOUND	RESULTS(UG/KG)	POL(UG/KG)
Styrene	ND	1.1
Isopropylbenzene	ND	1.1
1,1,2,2,-Tetrachloroethane	ND	1.1
1,2,3-Trichloropropane	ND	1.1
Bromobenzene	ND	1.1
n-Propylbenzene	ND	1.1
2-Chlorotoluene+p-Ethyltoluene	ND	2.2
4-Chlorotoluene+135Trimetben	ND	2.2
Tert-Butylbenzene	ND	1.1
1,3 Dichlorobenzene	ND	1.1
Isopropyltoluene	ND	1.1
1,2,4-trimethylbenzene	ND	1.1
sec-Butylbenzene	ND	1.1
1,4-Dichlorobenzene	ND	1.1
n-Butylbenzene	ND	1.1
1,2-Dichlorobenzene	ND	1.1
1,2,4-Trichlorobenzene	ND	1.1
Naphthalene	ND	1.1
Hexachlorobutadiene	ND	1.1
1,2,3-Trichlorobenzene	ND	1.1
1,1 Dichloroethene	ND	1.1
cis-1,3-Dichloropropene	ND	1.1
trans-1,3-Dichloropropene	ND	1.1
1,2-Dibromo-3-chloropropane	ND	1.1

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TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

CLIENT ID: SB-3
SAMPLE: 97-12-0001-005

DATE ANALYZED:12/03&04/97
REVIEWED BY: MP

COMPOUND	RESULTS(UG/KG)	POL(UG/KG)
Dichlorodifluoromethane.....	ND	1.1
Chloromethane.....	ND	1.1
Vinyl Chloride.....	ND	1.1
Bromomethane.....	ND	1.1
Chloroethane.....	ND	1.1
Trichlorofluoromethane.....	ND	1.1
1,1-Dichloroethane.....	ND	1.1
Methylene Chloride.....	ND	1.1
t-1,2-Dichloroethylene.....	ND	1.1
2,2-DCPRA+Cis-1,2 Dichlethen.....	ND	2.3
Chloroform.....	ND	1.1
Bromochloromethane.....	ND	1.1
1,1-Dichloropropene.....	ND	1.1
1,2-Dichloroethane.....	ND	1.1
1,1,1-Trichloroethane.....	ND	1.1
Carbon Tetrachloride.....	ND	1.1
Benzene.....	ND	1.1
Trichloroethylene.....	ND	1.1
1,2-Dichloropropane.....	ND	1.1
Bromodichlorometh+Dibrmomet.....	ND	2.3
1,1,2-Trichloroethane.....	ND	1.1
Chlorodibromomethane.....	ND	1.1
1,2-Dibromoethane.....	ND	1.1
1,1,1,2-Tetrachloroethane.....	ND	1.1
Bromoform.....	ND	1.1
Toluene.....	ND	1.1
Tetrachloroethylene.....	ND	1.1
1,3-Dichloropropane.....	ND	1.1
Chlorobenzene.....	ND	1.1
Ethylbenzene.....	ND	1.1
m,P-Xylenes.....	ND	2.3
o-Xylene.....	ND	1.1

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TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

SAMPLE: 97-12-0001-005

DATE ANALYZED:12/03&04/97
REVIEWED BY: MP

COMPOUND	RESULTS(UG/KG)	PQL(UG/KG)
Styrene	ND	1.1
Isopropylbenzene	ND	1.1
1,1,2,2,-Tetrachloroethane	ND	1.1
1,2,3-Trichloropropane	ND	1.1
Bromobenzene	ND	1.1
n-Propylbenzene	ND	1.1
2-Chlorotoluene+p-Ethyltoluene	ND	2.3
4-Chlorotoluene+135Trimetben	ND	2.3
Tert-Butylbenzene	ND	1.1
1,3 Dichlorobenzene	ND	1.1
Isopropyltoluene	ND	1.1
1,2,4-trimethylbenzene	ND	1.1
sec-Butylbenzene	ND	1.1
1,4-Dichlorobenzene	ND	1.1
n-Butylbenzene	ND	1.1
1,2-Dichlorobenzene	ND	1.1
1,2,4-Trichlorobenzene	ND	1.1
Naphthalene	ND	1.1
Hexachlorobutadiene	ND	1.1
1,2,3-Trichlorobenzene	ND	1.1
1,1 Dichloroethene	ND	1.1
cis-1,3-Dichloropropene	ND	1.1
trans-1,3-Dichloropropene	ND	1.1
1,2-Dibromo-3-chloropropane	ND	1.1

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TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

CLIENT ID: GW-3 DATE ANALYZED:12/03/97
SAMPLE: 97-12-0001-006 REVIEWED BY: MP

COMPOUND	RESULTS(UG/L)	POL(UG/L)
Dichlorodifluoromethane.....	ND	1.0
Chloromethane.....	ND	1.0
Vinyl Chloride.....	ND	1.0
Bromomethane.....	ND	1.0
Chloroethane.....	ND	1.0
Trichlorofluoromethane.....	ND	1.0
1,1-Dichloroethane.....	ND	1.0
Methylene Chloride.....	ND	1.0
t-1,2-Dichloroethylene.....	ND	1.0
2,2-DCPRA+Cis-1,2 Dichlethen.....	ND	2.0
Chloroform.....	ND	1.0
Bromochloromethane.....	ND	1.0
1,1-Dichloropropene.....	ND	1.0
1,2-Dichloroethane.....	ND	1.0
1,1,1-Trichloroethane.....	ND	1.0
Carbon Tetrachloride.....	ND	1.0
Benzene.....	ND	1.0
Trichloroethylene.....	ND	1.0
1,2-Dichloropropane.....	ND	1.0
Bromodichlorometh+Dibrmomet.....	ND	2.0
1,1,2-Trichloroethane.....	ND	1.0
Chlorodibromomethane.....	ND	1.0
1,2-Dibromoethane.....	ND	1.0
1,1,1,2-Tetrachloroethane.....	ND	1.0
Bromoform.....	ND	1.0
Toluene.....	ND	1.0
Tetrachloroethylene.....	ND	1.0
1,3-Dichloropropane.....	ND	1.0
Chlorobenzene.....	ND	1.0
Ethylbenzene.....	ND	1.0
m,P-Xylenes.....	ND	2.0
o-Xylene.....	ND	1.0

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TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

SAMPLE: 97-12-0001-006

DATE ANALYZED:12/03/97
REVIEWED BY: MP

COMPOUND	RESULTS(UG/L)	POL(UG/L)
Styrene	ND	1.0
Isopropylbenzene	ND	1.0
1,1,2,2,-Tetrachloroethane	ND	1.0
1,2,3-Trichloropropane	ND	1.0
Bromobenzene	ND	1.0
n-Propylbenzene	ND	1.0
2-Chlorotoluene+p-Ethyltoluene	ND	2.0
4-Chlorotoluene+135Trimetben	ND	2.0
Tert-Butylbenzene	ND	1.0
1,3 Dichlorobenzene	ND	1.0
Isopropyltoluene	ND	1.0
1,2,4-trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
n-Butylbenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0
1,2,4-Trichlorobenzene	ND	1.0
Naphthalene	ND	1.0
Hexachlorobutadiene	ND	1.0
1,2,3-Trichlorobenzene	ND	1.0
1,1 Dichloroethene	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
1,2-Dibromo-3-chloropropane	ND	1.0

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TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

CLIENT ID: SB-4 DATE ANALYZED:12/04/97
SAMPLE: 97-12-0001-007 REVIEWED BY: MP

COMPOUND	RESULTS(UG/KG)	POL(UG/KG)
Dichlorodifluoromethane.....	ND	5.8
Chloromethane.....	ND	5.8
Vinyl Chloride.....	ND	5.8
Bromomethane.....	ND	5.8
Chloroethane.....	ND	5.8
Trichlorofluoromethane.....	ND	5.8
1,1-Dichloroethane.....	ND	5.8
Methylene Chloride.....	ND	5.8
t-1,2-Dichloroethylene.....	ND	5.8
2,2-DCPRA+Cis-1,2 Dichlethen.....	ND	12
Chloroform.....	ND	5.8
Bromochloromethane.....	ND	5.8
1,1-Dichloropropene.....	ND	5.8
1,2-Dichloroethane.....	ND	5.8
1,1,1-Trichloroethane.....	ND	5.8
Carbon Tetrachloride.....	ND	5.8
Benzene.....	ND	5.8
Trichloroethylene.....	ND	5.8
1,2-Dichloropropane.....	ND	5.8
Bromodichlorometh+Dibrmomet.....	ND	12
1,1,2-Trichloroethane.....	ND	5.8
Chlorodibromomethane.....	ND	5.8
1,2-Dibromoethane.....	ND	5.8
1,1,1,2-Tetrachloroethane.....	ND	5.8
Bromoform.....	ND	5.8
Toluene.....	ND	5.8
Tetrachloroethylene.....	ND	5.8
1,3-Dichloropropane.....	ND	5.8
Chlorobenzene.....	ND	5.8
Ethylbenzene.....	40	5.8
m,P-Xylenes.....	ND	12
o-Xylene.....	ND	5.8

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TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

SAMPLE: 97-12-0001-007

DATE ANALYZED:12/04/97
REVIEWED BY: MP

COMPOUND	RESULTS(UG/KG)	POL(UG/KG)
Styrene	45	5.8
Isopropylbenzene	7.0	5.8
1,1,2,2,-Tetrachloroethane	ND	5.8
1,2,3-Trichloropropane	ND	5.8
Bromobenzene	ND	5.8
n-Propylbenzene	120	5.8
2-Chlorotoluene+p-Ethyltoluene	31	12
4-Chlorotoluene+135Trimetben	ND	12
Tert-Butylbenzene	ND	5.8
1,3 Dichlorobenzene	ND	5.8
Isopropyltoluene	82	5.8
1,2,4-trimethylbenzene	120	5.8
sec-Butylbenzene	45	5.8
1,4-Dichlorobenzene	ND	5.8
n-Butylbenzene	230	5.8
1,2-Dichlorobenzene	ND	5.8
1,2,4-Trichlorobenzene	ND	5.8
Naphthalene	ND	5.8
Hexachlorobutadiene	ND	5.8
1,2,3-Trichlorobenzene	ND	5.8
1,1 Dichloroethene	ND	5.8
cis-1,3-Dichloropropene	ND	5.8
trans-1,3-Dichloropropene	ND	5.8
1,2-Dibromo-3-chloropropane	ND	5.8

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TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

CLIENT ID: GW-4 DATE ANALYZED:12/03/97
SAMPLE: 97-12-0001-008 REVIEWED BY: MP

COMPOUND	RESULTS(UG/L)	POL(UG/L)
Dichlorodifluoromethane.....	ND	1.0
Chloromethane.....	ND	1.0
Vinyl Chloride.....	ND	1.0
Bromomethane.....	9.9	1.0
Chloroethane.....	7.6	1.0
Trichlorofluoromethane.....	ND	1.0
1,1-Dichloroethane.....	ND	1.0
Methylene Chloride.....	ND	1.0
t-1,2-Dichloroethylene.....	ND	1.0
2,2-DCPRA+Cis-1,2 Dichlethen.....	ND	2.0
Chloroform.....	ND	1.0
Bromochloromethane.....	ND	1.0
1,1-Dichloropropene.....	ND	1.0
1,2-Dichloroethane.....	ND	1.0
1,1,1-Trichloroethane.....	ND	1.0
Carbon Tetrachloride.....	ND	1.0
Benzene.....	ND	1.0
Trichloroethylene.....	ND	1.0
1,2-Dichloropropane.....	ND	1.0
Bromodichlorometh+Dibrmomet.....	ND	2.0
1,1,2-Trichloroethane.....	ND	1.0
Chlorodibromomethane.....	ND	1.0
1,2-Dibromoethane.....	ND	1.0
1,1,1,2-Tetrachloroethane.....	ND	1.0
Bromoform.....	ND	1.0
Toluene.....	ND	1.0
Tetrachloroethylene.....	ND	1.0
1,3-Dichloropropane.....	ND	1.0
Chlorobenzene.....	ND	1.0
Ethylbenzene.....	ND	1.0
m,P-Xylenes.....	ND	2.0
o-Xylene.....	3.5	1.0

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TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

SAMPLE: 97-12-0001-008

DATE ANALYZED:12/03/97
REVIEWED BY: MP

COMPOUND	RESULTS(UG/L)	POL(UG/L)
Styrene	ND	1.0
Isopropylbenzene	8.3	1.0
1,1,2,2,-Tetrachloroethane	ND	1.0
1,2,3-Trichloropropane	ND	1.0
Bromobenzene	ND	1.0
n-Propylbenzene	12	1.0
2-Chlorotoluene+p-Ethyltoluene	ND	2.0
4-Chlorotoluene+135Trimetben	ND	2.0
Tert-Butylbenzene	ND	1.0
1,3 Dichlorobenzene	ND	1.0
Isopropyltoluene	ND	1.0
1,2,4-trimethylbenzene	60	1.0
sec-Butylbenzene	4.6	1.0
1,4-Dichlorobenzene	ND	1.0
n-Butylbenzene	64	1.0
1,2-Dichlorobenzene	ND	1.0
1,2,4-Trichlorobenzene	ND	1.0
Naphthalene	ND	1.0
Hexachlorobutadiene	ND	1.0
1,2,3-Trichlorobenzene	ND	1.0
1,1 Dichloroethene	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
1,2-Dibromo-3-chloropropane	ND	1.0

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TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

CLIENT ID: SB-6 DATE ANALYZED: 12/03/97
SAMPLE: 97-12-0001-009 REVIEWED BY: MP

COMPOUND	RESULTS (UG/KG)	POL (UG/KG)
Dichlorodifluoromethane	ND	1.1
Chloromethane	ND	1.1
Vinyl Chloride	ND	1.1
Bromomethane	ND	1.1
Chloroethane	ND	1.1
Trichlorofluoromethane	ND	1.1
1,1-Dichloroethane	1.3	1.1
Methylene Chloride	ND	1.1
t-1,2-Dichloroethylene	ND	1.1
2,2-DCPRA+Cis-1,2 Dichlethen	ND	2.3
Chloroform	ND	1.1
Bromochloromethane	ND	1.1
1,1-Dichloropropene	ND	1.1
1,2-Dichloroethane	ND	1.1
1,1,1-Trichloroethane	ND	1.1
Carbon Tetrachloride	ND	1.1
Benzene	ND	1.1
Trichloroethylene	ND	1.1
1,2-Dichloropropane	ND	1.1
Bromodichlorometh+Dibrmomet	ND	2.3
1,1,2-Trichloroethane	ND	1.1
Chlorodibromomethane	ND	1.1
1,2-Dibromoethane	ND	1.1
1,1,1,2-Tetrachloroethane	ND	1.1
Bromoform	ND	1.1
Toluene	ND	1.1
Tetrachloroethylene	ND	1.1
1,3-Dichloropropane	ND	1.1
Chlorobenzene	ND	1.1
Ethylbenzene	ND	1.1
m,P-Xylenes	ND	2.3
o-Xylene	1.7	1.1

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TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

SAMPLE: 97-12-0001-009

DATE ANALYZED:12/03/97
REVIEWED BY: MP

COMPOUND	RESULTS(UG/KG)	POL(UG/KG)
Styrene	ND	1.1
Isopropylbenzene	ND	1.1
1,1,2,2,-Tetrachloroethane	ND	1.1
1,2,3-Trichloropropane	ND	1.1
Bromobenzene	ND	1.1
n-Propylbenzene	17	1.1
2-Chlorotoluene+p-Ethyltoluene	7.6	2.3
4-Chlorotoluene+135Trimetben	ND	2.3
Tert-Butylbenzene	9.8	1.1
1,3 Dichlorobenzene	ND	1.1
Isopropyltoluene	13	1.1
1,2,4-trimethylbenzene	11	1.1
sec-Butylbenzene	15	1.1
1,4-Dichlorobenzene	ND	1.1
n-Butylbenzene	39	1.1
1,2-Dichlorobenzene	ND	1.1
1,2,4-Trichlorobenzene	ND	1.1
Naphthalene	ND	1.1
Hexachlorobutadiene	ND	1.1
1,2,3-Trichlorobenzene	ND	1.1
1,1 Dichloroethene	ND	1.1
cis-1,3-Dichloropropene	ND	1.1
trans-1,3-Dichloropropene	ND	1.1
1,2-Dibromo-3-chloropropane	ND	1.1

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TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

CLIENT ID: SB-6 DATE ANALYZED: 12/03&04/97
SAMPLE: 97-12-0001-010 REVIEWED BY: MP

COMPOUND	RESULTS(UG/KG)	POL(UG/KG)
Dichlorodifluoromethane.....	ND	1.1
Chloromethane.....	ND	1.1
Vinyl Chloride.....	ND	1.1
Bromomethane.....	1.7	1.1
Chloroethane.....	ND	1.1
Trichlorofluoromethane.....	ND	1.1
1,1-Dichloroethane.....	ND	1.1
Methylene Chloride.....	ND	1.1
t-1,2-Dichloroethylene.....	ND	1.1
2,2-DCPRA+Cis-1,2 Dichlethen.....	ND	2.3
Chloroform.....	ND	1.1
Bromochloromethane.....	ND	1.1
1,1-Dichloropropene.....	ND	1.1
1,2-Dichloroethane.....	ND	1.1
1,1,1-Trichloroethane.....	ND	1.1
Carbon Tetrachloride.....	ND	1.1
Benzene.....	ND	1.1
Trichloroethylene.....	ND	1.1
1,2-Dichloropropane.....	ND	1.1
Bromodichlorometh+Dibrmomet.....	ND	2.3
1,1,2-Trichloroethane.....	ND	1.1
Chlorodibromomethane.....	ND	1.1
1,2-Dibromoethane.....	ND	1.1
1,1,1,2-Tetrachloroethane.....	ND	1.1
Bromoform.....	ND	1.1
Toluene.....	ND	1.1
Tetrachloroethylene.....	ND	1.1
1,3-Dichloropropane.....	ND	1.1
Chlorobenzene.....	1.7	1.1
Ethylbenzene.....	ND	1.1
m,P-Xylenes.....	ND	2.3
o-Xylene.....	ND	1.1

Analytical Report Flags:

U = NOT DETECTED
J = BELOW MDL
E = EXCEEDS CALIBRATION RANGE, ESTIMATED VALUE
B = DETECTED IN BLANK

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TABULATED ANALYTICAL REPORT
VOLATILE ORGANICS METHOD 8021
BY GAS CHROMATOGRAPHY

SAMPLE: 97-12-0001-010

DATE ANALYZED:12/03&04/97
REVIEWED BY: MP

COMPOUND	RESULTS(UG/KG)	POL(UG/KG)
Styrene	ND	1.1
Isopropylbenzene	ND	1.1
1,1,2,2,-Tetrachloroethane	ND	1.1
1,2,3-Trichloropropane	ND	1.1
Bromobenzene	ND	1.1
n-Propylbenzene	ND	1.1
2-Chlorotoluene+p-Ethyltoluene	ND	2.3
4-Chlorotoluene+135Trimetben	ND	2.3
Tert-Butylbenzene	ND	1.1
1,3 Dichlorobenzene	1.9	1.1
Isopropyltoluene	ND	1.1
1,2,4-trimethylbenzene	ND	1.1
sec-Butylbenzene	ND	1.1
1,4-Dichlorobenzene	ND	1.1
n-Butylbenzene	ND	1.1
1,2-Dichlorobenzene	ND	1.1
1,2,4-Trichlorobenzene	ND	1.1
Naphthalene	ND	1.1
Hexachlorobutadiene	ND	1.1
1,2,3-Trichlorobenzene	ND	1.1
1,1 Dichloroethene	ND	1.1
cis-1,3-Dichloropropene	ND	1.1
trans-1,3-Dichloropropene	ND	1.1
1,2-Dibromo-3-chloropropane	ND	1.1

Analytical Report Flags
U = NOT DETECTED
J = BELOW MDL
E =EXCEEDS CALIBRATION RANGE, ESTIMATED VALUE

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TABULATED ANALYTICAL RESULTS

METALS ANALYSIS

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ANALYTICAL REPORT

TCLP ANALYSIS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: SB-1
REPORT DATE : DEC. 11 1997
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001 -001
ANALYST: ED/MEZ
ANALYSIS DATE: 12/11/97

PARAMETER	RESULTS (mg/l)	MCL (mg/l)	POL (mg/l)
Lead	0.32	5.0	0.25
Mercury	ND	0.2	0.0005
Zinc	1.42	NA	0.05

COMMENTS:
MCL = MAXIMUM CONTAMINANT LEVEL
MDL = METHOD DETECTION LIMIT
< = LESS THAN

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ANALYTICAL REPORT

TCLP ANALYSIS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: GW-1
REPORT DATE : DEC. 11 1997
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001 -002
ANALYST: ED/MEZ
ANALYSIS DATE: 12/11/97

PARAMETER	RESULTS (mg/l)	MCL (mg/l)	PQL (mg/l)
Lead	0.13 B	5.0	0.25
Mercury	ND	0.2	0.0005
Zinc	0.25	NA	0.05

COMMENTS:
MCL = MAXIMUM CONTAMINANT LEVEL
MDL = METHOD DETECTION LIMIT
< = LESS THAN

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ANALYTICAL REPORT

TCLP ANALYSIS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: GW-1 X-TRA
REPORT DATE : DEC. 11 1997
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001 -003

ANALYST: ED/MEZ
ANALYSIS DATE: 12/11/97

PARAMETER	RESULTS (mg/l)	MCL (mg/l)	POL (mg/l)
Lead	0.26	5.0	0.25
Mercury	ND	0.2	0.0005
Zinc	0.75	NA	0.05

COMMENTS:
MCL = MAXIMUM CONTAMINANT LEVEL
MDL = METHOD DETECTION LIMIT
< = LESS THAN

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ANALYTICAL REPORT

TCLP ANALYSIS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: SB-2
REPORT DATE : DEC. 11 1997
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001 -004
ANALYST: ED/MEZ
ANALYSIS DATE: 12/11/97

PARAMETER	RESULTS (mg/l)	MCL (mg/l)	POL (mg/l)
Lead	0.81	5.0	0.25
Mercury	ND	0.2	0.0005
Zinc	3.50	NA	0.05

COMMENTS:
MCL = MAXIMUM CONTAMINANT LEVEL
MDL = METHOD DETECTION LIMIT
< = LESS THAN

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ANALYTICAL REPORT

TCLP ANALYSIS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: SB-3
REPORT DATE : DEC. 11 1997
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001 -005
ANALYST: ED/MEZ
ANALYSIS DATE: 12/11/97

PARAMETER	RESULTS (mg/l)	MCL (mg/l)	POL (mg/l)
Lead	0.22 B	5.0	0.25
Mercury	ND	0.2	0.0005
Zinc	1.42	NA	0.05

COMMENTS:
MCL = MAXIMUM CONTAMINANT LEVEL
MDL = METHOD DETECTION LIMIT
< = LESS THAN

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TCLP ANALYSIS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: SB-4
REPORT DATE : DEC. 11 1997
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001 -007

ANALYST: ED/MEZ
ANALYSIS DATE: 12/11/97

PARAMETER	RESULTS (mg/l)	MCL (mg/l)	POL (mg/l)
Lead	77.0	5.0	0.25
Mercury	ND	0.2	0.0005
Zinc	62.0	NA	0.05

COMMENTS:
MCL = MAXIMUM CONTAMINANT LEVEL
MDL = METHOD DETECTION LIMIT
< = LESS THAN

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ANALYTICAL REPORT

TCLP ANALYSIS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: GW-3
REPORT DATE : DEC. 11 1997
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001 -006

ANALYST: ED/MEZ
ANALYSIS DATE: 12/11/97

PARAMETER	RESULTS (mg/l)	MCL (mg/l)	POL (mg/l)
Lead	0.10 B	5.0	0.25
Mercury	ND	0.2	0.0005
Zinc	0.07	NA	0.05

COMMENTS:
MCL = MAXIMUM CONTAMINANT LEVEL
MDL = METHOD DETECTION LIMIT
< = LESS THAN

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ANALYTICAL REPORT

TCLP ANALYSIS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: GW-4
REPORT DATE : DEC. 11 1997
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001 -008
ANALYST: ED/MEZ
ANALYSIS DATE: 12/11/97

PARAMETER	RESULTS (mg/l)	MCL (mg/l)	POL (mg/l)
Lead	0.11 B	5.0	0.25
Mercury	ND	0.2	0.0005
Zinc	0.06	NA	0.05

COMMENTS:
MCL = MAXIMUM CONTAMINANT LEVEL
MDL = METHOD DETECTION LIMIT
< = LESS THAN

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ANALYTICAL REPORT

TCLP ANALYSIS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: SB-5
REPORT DATE : DEC. 11 1997
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001 -009
ANALYST: ED/MEZ
ANALYSIS DATE: 12/11/97

PARAMETER	RESULTS (mg/l)	MCL (mg/l)	POL (mg/l)
Lead	0.12 B	5.0	0.25
Mercury	ND	0.2	0.0005
Zinc	5.30	NA	0.05

COMMENTS:
MCL = MAXIMUM CONTAMINANT LEVEL
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ANALYTICAL REPORT

TCLP ANALYSIS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: SB-6
REPORT DATE : DEC. 11 1997
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001 -010
ANALYST: ED/MEZ
ANALYSIS DATE: 12/11/97

PARAMETER	RESULTS (mg/l)	MCL (mg/l)	POL (mg/l)
Lead	0.76	5.0	0.25
Mercury	ND	0.2	0.0005
Zinc	1.84	NA	0.05

COMMENTS:
MCL = MAXIMUM CONTAMINANT LEVEL
MDL = METHOD DETECTION LIMIT
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ANALYTICAL REPORT

LEAD (Pb) BY FURNACE ATOMIC ABSORPTION
EPA METHOD 239.2, SW 846 7421

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
REPORT DATE: DEC. 10 1997
PROJECT RECEIPT DATE:12/01/97

PROJECT:97-12-0001
ANALYST: DR/ED
ANALYSIS DATE: 12/10/97

CLIENT ID	LAB ID	RESULTS (ug/l)	POL (ug/l)
GW-1	002	580.0	5.0
GW-1 X-TRA	003	286.0	5.0
GW-3	006	17.9	5.0
GW-4	008	19.4	5.0

< = LESS THAN
S = RESULTS BY METHOD OF ADDITION PROCEDURE
+ = CORRELATION COEFFICIENT FOR METHOD OF ADDITION IS LESS THAN 0.995 AFTER REPEATED ONCE.

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ANALYTICAL REPORT

TOTAL RCRA METALS +COPPER,NICKEL,ZINC

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: SB-1
REPORT DATE : JAN. 7 1998
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001-001
ANALYST: DR/ED/MEZ
ANALYSIS DATE: 12/03,04/97

PARAMETER	RESULTS (mg/Kg)	PQL (mg/Kg)
Arsenic	7.4	0.8
Barium	70.0 B	100
Cadmium	ND	2.5
Chromium	7.0 B	10.0
Lead	124.0	25.0
Mercury	1.22	0.25
Selenium	0.5 B	1.0
Silver	ND	5.0
Copper	94.2	5.0
Zinc	109.0	5.0

COMMENTS:
FILTERABLE ORGANIC LIQUIDS ARE REPORTED ON A WEIGHT BASIS ONLY.
S = RESULTS BY METHOD OF ADDITION PROCEDURE
< = LESS THAN
+ = CORRELATION COEFFICIENT FOR METHOD OF ADDITION IS LESS THAN 0.995 AFTER REPEATED ONCE.

ME210

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ANALYTICAL REPORT

TOTAL RCRA METALS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: GW-1
REPORT DATE : JAN. 7 1998
PROJECT RECEIPT DATE:12/01/97

LAB ID: 97-12-0001-002

ANALYST: DR/ED/MEZ
ANALYSIS DATE: 12/03,04/97

PARAMETER	RESULTS (Ug/l)	PQL (Ug/l)
Arsenic	67.4	8.0
Barium	<1000	1000.0
Cadmium	<25.0	25.0
Chromium	60.0 B	100.0
Copper	410.0	50.0
Lead	580.0	250.0
Mercury	18.8	0.5
Selenium	3.4 B	10.0
Silver	<50.0	50.0
Zinc	2640	50.0

COMMENTS:
FILTERABLE ORGANIC LIQUIDS ARE REPORTED ON A WEIGHT BASIS ONLY.
S = RESULTS BY METHOD OF ADDITION PROCEDURE
< = LESS THAN
+ = CORRELATION COEFFICIENT FOR METHOD OF ADDITION IS LESS THAN 0.995 AFTER REPEATED ONCE.

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ANALYTICAL REPORT

TOTAL RCRA METALS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: GW-1 X-TRA
REPORT DATE : JAN. 7 1998
PROJECT RECEIPT DATE:12/01/97

LAB ID: 97-12-0001-003

ANALYST: DR/ED/MEZ
ANALYSIS DATE: 12/03,04/97

PARAMETER	RESULTS (Ug/l)	PQL (Ug/l)
Arsenic	17.3	8.0
Barium	ND	1000.0
Cadmium	ND	25.0
Chromium	ND	100.0
Copper	150.0	50.0
Lead	286.0	250.0
Mercury	6.4	0.5
Selenium	3.0 B	10.0
Silver	ND	50.0
Zinc	787.0	50.0

COMMENTS:
FILTERABLE ORGANIC LIQUIDS ARE REPORTED ON A WEIGHT BASIS ONLY.
S = RESULTS BY METHOD OF ADDITION PROCEDURE
< = LESS THAN
+ = CORRELATION COEFFICIENT FOR METHOD OF ADDITION IS LESS THAN 0.995 AFTER REPEATED ONCE.

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ANALYTICAL REPORT

TOTAL RCRA METALS +COPPER,NICKEL,ZINC

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: SB-2
REPORT DATE : JAN. 7 1998
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001-004

ANALYST: DR/ED/MEZ
ANALYSIS DATE: 12/03,04/97

PARAMETER	RESULTS (mg/Kg)	PQL (mg/Kg)
Arsenic	6.4	0.8
Barium	53.0 B	100
Cadmium	1.4 B	2.5
Chromium	21.7	10.0
Lead	432.0	25.0
Mercury	0.73	0.25
Selenium	0.4 B	1.0
Silver	ND	5.0
Copper	210.0	5.0
Zinc	875.0	5.0

COMMENTS:
FILTERABLE ORGANIC LIQUIDS ARE REPORTED ON A WEIGHT BASIS ONLY.
S = RESULTS BY METHOD OF ADDITION PROCEDURE
< = LESS THAN
+ = CORRELATION COEFFICIENT FOR METHOD OF ADDITION IS LESS THAN 0.995 AFTER REPEATED ONCE.

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ANALYTICAL REPORT

TOTAL RCRA METALS +COPPER,NICKEL,ZINC

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: SB-3
REPORT DATE : JAN. 7 1998
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001-005

ANALYST: DR/ED/MEZ
ANALYSIS DATE: 12/03,04/97

PARAMETER	RESULTS (mg/Kg)	POL (mg/Kg)
Arsenic	6.4	0.8
Barium	23.0 B	100
Cadmium	ND	2.5
Chromium	ND	10.0
Lead	971.0	25.0
Mercury	ND	0.25
Selenium	ND	1.0
Silver	ND	5.0
Copper	483.0	5.0
Zinc	101.0	5.0

COMMENTS:
FILTERABLE ORGANIC LIQUIDS ARE REPORTED ON A WEIGHT BASIS ONLY.
S = RESULTS BY METHOD OF ADDITION PROCEDURE
< = LESS THAN
+ = CORRELATION COEFFICIENT FOR METHOD OF ADDITION IS LESS THAN 0.995 AFTER REPEATED ONCE.

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ANALYTICAL REPORT

TOTAL RCRA METALS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: GW-3
REPORT DATE : JAN. 7 1998
PROJECT RECEIPT DATE:12/01/97

LAB ID: 97-12-0001-006

ANALYST: DR/ED/MEZ
ANALYSIS DATE: 12/03,04/97

PARAMETER	RESULTS (Ug/l)	PQL (Ug/l)
Arsenic	ND	8.0
Barium	ND	1000.0
Cadmium	ND	25.0
Chromium	ND	100.0
Copper	ND	50.0
Lead	20.0 B	250.0
Mercury	ND	0.5
Selenium	ND	10.0
Silver	ND	50.0
Zinc	142.0	50.0

COMMENTS:
FILTERABLE ORGANIC LIQUIDS ARE REPORTED ON A WEIGHT BASIS ONLY.
S = RESULTS BY METHOD OF ADDITION PROCEDURE
< = LESS THAN
+ = CORRELATION COEFFICIENT FOR METHOD OF ADDITION
IS LESS THAN 0.995 AFTER REPEATED ONCE.

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ANALYTICAL REPORT

TOTAL RCRA METALS +COPPER,NICKEL,ZINC

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: SB-4
REPORT DATE : JAN. 7 1998
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001-007

ANALYST: DR/ED/MEZ
ANALYSIS DATE: 12/03,04/97

PARAMETER	RESULTS (mg/Kg)	POL (mg/Kg)
Arsenic	3.9	0.8
Barium	176.0	100
Cadmium	1.0 B	2.5
Chromium	ND	10.0
Lead	450.0	25.0
Mercury	ND	0.25
Selenium	0.3 B	1.0
Silver	ND	5.0
Copper	31.4	5.0
Zinc	258.0	5.0

COMMENTS:
FILTERABLE ORGANIC LIQUIDS ARE REPORTED ON A WEIGHT BASIS ONLY.
S = RESULTS BY METHOD OF ADDITION PROCEDURE
< = LESS THAN
+ = CORRELATION COEFFICIENT FOR METHOD OF ADDITION IS LESS THAN 0.995 AFTER REPEATED ONCE.

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ANALYTICAL REPORT

TOTAL RCRA METALS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: GW-4
REPORT DATE : JAN. 7 1998
PROJECT RECEIPT DATE:12/01/97

LAB ID: 97-12-0001-008
ANALYST: DR/ED/MEZ
ANALYSIS DATE: 12/03,04/97

PARAMETER	RESULTS (Ug/l)	POL (Ug/l)
Arsenic	ND	8.0
Barium	ND	1000.0
Cadmium	ND	25.0
Chromium	ND	100.0
Copper	ND	50.0
Lead	20.0 B	250.0
Mercury	ND	0.5
Selenium	3.6 B	10.0
Silver	ND	50.0
Zinc	77.0	50.0

COMMENTS:
FILTERABLE ORGANIC LIQUIDS ARE REPORTED ON A WEIGHT BASIS ONLY.
S = RESULTS BY METHOD OF ADDITION PROCEDURE
< = LESS THAN
+ = CORRELATION COEFFICIENT FOR METHOD OF ADDITION IS LESS THAN 0.995 AFTER REPEATED ONCE.

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ANALYTICAL REPORT

TOTAL RCRA METALS
+COPPER, NICKEL, ZINC

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: SB-5
REPORT DATE : JAN. 7 1998
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001-009

ANALYST: DR/ED/MEZ
ANALYSIS DATE: 12/03,04/97

PARAMETER	RESULTS (mg/Kg)	PQL (mg/Kg)
Arsenic	2.7	0.8
Barium	ND	100
Cadmium	ND	2.5
Chromium	ND	10.0
Lead	147.0	25.0
Mercury	ND	0.25
Selenium	0.4 B	1.0
Silver	ND	5.0
Copper	12.5	5.0
Zinc	18.5	5.0

COMMENTS:
FILTERABLE ORGANIC LIQUIDS ARE REPORTED ON A WEIGHT BASIS ONLY.
S = RESULTS BY METHOD OF ADDITION PROCEDURE
< = LESS THAN
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ANALYTICAL REPORT

TOTAL RCRA METALS +COPPER,NICKEL,ZINC

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
CLIENT ID: SB-6
REPORT DATE : JAN. 7 1998
PROJECT RECEIPT DATE: 12/01/97

LAB ID: 97-12-0001-010

ANALYST: DR/ED/MEZ
ANALYSIS DATE: 12/03,04/97

PARAMETER	RESULTS (mg/Kg)	PQL (mg/Kg)
Arsenic	8.5	0.8
Barium	48.0 B	100
Cadmium	1.2 B	2.5
Chromium	3.0 B	10.0
Lead	602.0	25.0
Mercury	0.14 B	0.25
Selenium	0.4 B	1.0
Silver	ND	5.0
Copper	108.0	5.0
Zinc	166.0	5.0

COMMENTS:
FILTERABLE ORGANIC LIQUIDS ARE REPORTED ON A WEIGHT BASIS ONLY.
S = RESULTS BY METHOD OF ADDITION PROCEDURE
< = LESS THAN
+ = CORRELATION COEFFICIENT FOR METHOD OF ADDITION IS LESS THAN 0.995 AFTER REPEATED ONCE.

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TABULATED ANALYTICAL RESULTS

WET CHEMISTRY

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ANALYTICAL REPORT

TOTAL SOLIDS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
REPORT DATE: DEC. 3 1997
PROJECT RECEIPT DATE: 12/01/97

PROJECT: 97-12-0001
MATRIX: SOIL
UNITS: %

CLIENT ID	LAB ID	RESULTS	ANALYSIS DATE	ANALYST
SB-1	001	86	12-3-97	RM
SB-2	004	92	12-3-97	RM
SB-3	005	87	12-3-97	RM
SB-4	007	86	12-3-97	RM
SB-5	009	88	12-3-97	RM
SB-6	010	88	12-3-97	RM

COMMENTS:
NA = NOT APPLICABLE

wc115v

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Phone #	Phone #
Fax # (202) 462-7599	Fax # P. 103

ANALab INC. 205 Comcue Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111. Fax: (908) 225-4110

ANALYTICAL REPORT

TOTAL SOLIDS

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
REPORT DATE: DEC. 3 1997
PROJECT RECEIPT DATE: 12/01/97

PROJECT: 97-12-0001
MATRIX: SOIL
UNITS: %

CLIENT ID	LAB ID	RESULTS	ANALYSIS DATE	ANALYST
SB-1	001	86	12-3-97	RM
SB-2	004	92	12-3-97	RM
SB-3	005	87	12-3-97	RM
SB-4	007	86	12-3-97	RM
SB-5	009	88	12-3-97	RM
SB-6	010	88	12-3-97	RM

COMMENTS:
NA = NOT APPLICABLE

wc115v

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

ANALYTICAL REPORT

CHLORIDE

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
REPORT DATE : DEC. 3 1997
PROJECT RECEIVED DATE: 12/01/97

PROJECT: 97-12-0001
ANALYST: HR
ANALYSIS DATE: 12-2-97

CLIENT ID	LAB ID	CHLORIDE(mg/l)	MDL(mg/l)
GW-1	002	519	50
GW-3	006	205	50
GW-4	008	165	50

WC152A

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel (908) 225-4111, Fax (908) 225-4110

ANALYTICAL REPORT

TOTAL DISSOLVED SOLIDS (METHOD 160.1)

CLIENT: ROUX ASSOCIATES INC
CLIENT PROJECT: GIBSON & CUSHMAN
REPORT DATE: DEC. 3 1997
PROJECT RECEIPT DATE: 12/01/97

PROJECT: 97-12-0001
MATRIX: WATER
UNITS: Mg/L

CLIENT ID	LAB ID	RESULTS	MDL	ANALYSIS DATE	ANALYST
GW-1	002	1700	10.0	12-2-97	NC
GW-3	006	520	10.0	12-2-97	NC
GW-4	008	460	10.0	12-2-97	NC

COMMENTS:
MDL = METHOD DETECTION LIMIT
NA = NOT APPLICABLE
< = LESS THAN

wc143

3

August 12, 2001

Mr. Christopher Kirk
President
Gibson and Cushman Dredging Co., LLC
38 Homan Avenue
Bay Shore, NY 11707

Re: Soil Sampling July 27, 2001
Gibson and Cushman Dredging Co., LLC
38 Homan Avenue
Bay Shore, New York

Dear Mr. Kirk:

On July 27, 2001, Anson Environmental Ltd. (AEL) collected soil samples from locations near those sampled in November 12, 1999. The purposes of the sampling were to determine if there was a significant change in the concentration of the metals (arsenic lead and zinc) and petroleum hydrocarbons changed in the twenty months between sampling events and to determine the vertical extent of the contamination.

In addition, one composite soil sample was collected from the northern parcel and one from the southern parcel. These samples were analyzed for disposal purposes so the contaminated soils could be classified as hazardous or non-hazardous. Laboratory analysis of each of the samples determined that the soil in both locations was non-hazardous.

July 27, 2001 Soil Sampling

Thirty-nine soil samples were collected from the two parcels. Eight of the sampling locations were on the northern parcel and five were on the southern parcel. The soil samples from the northern parcel were analyzed for petroleum hydrocarbons via the STARs protocol (EPA method 8021) and for the metals lead, arsenic and zinc. The samples from the southern parcel were analyzed for lead, arsenic and zinc. The exception was sample 27MSB4 which had petroleum contamination at the 12-18 inch depth. This sample was also analyzed for the STARs protocol. At each sampling location, soil was collected from 0-6 inches, 6-12 inches and 12-18 inches.

Figure 1 illustrates the locations where the samples were collected.

Sampling tools were decontaminated between sampling locations.

Northern Parcel Soils

Sample #	STARs	Arsenic	Lead	Zinc
27S1 0-6 inch	BDL	<6.60 mg/kg	**789 mg/kg**	**717 mg/kg**
27S1 6-12 inch	BDL	<6.60 mg/kg	393 mg/kg	**281 mg/kg**
27S1 12-18 inch	BDL	<6.60 mg/kg	**627 mg/kg**	**491 mg/kg**
27S2 0-6 inch	BDL	<6.60 mg/kg	**506 mg/kg**	**235 mg/kg**
27S2 6-12 inch	BDL	<6.60 mg/kg	408 mg/kg	**267 mg/kg**
27S2 12-18 inch	BDL	<6.60 mg/kg	84.9 mg/kg	**50.4 mg/kg**
27S3 0-6 inch	BDL	<6.60 mg/kg	143 mg/kg	**67.8 mg/kg**
27S3 6-12 inch	BDL	<6.60 mg/kg	85.9 mg/kg	**46.1 mg/kg**
27S3 12-18 inch	BDL	<6.60 mg/kg	19.1 mg/kg	10.2 mg/kg
27S4 0-6 inch	BDL	<6.60 mg/kg	43.0 mg/kg	4.01 mg/kg
27S4 6-12 inch	BDL	<6.60 mg/kg	145 mg/kg	**1,083 mg/kg**
27S4 12-18 inch	BDL	<6.60 mg/kg	88.4 mg/kg	10.9 mg/kg
27S5 0-6 inch	see table below	<6.60 mg/kg	400 mg/kg	**515 mg/kg**
27S5 6-12 inch	see table below	<6.60 mg/kg	365 mg/kg	**423 mg/kg**
27S5 12-18 inch	see table below	<6.60 mg/kg	20.2 mg/kg	**59.9 mg/kg**
27S6 0-6 inch	BDL	<6.60 mg/kg	241 mg/kg	**576 mg/kg**
27S6 6-12 inch	see table below	<6.60 mg/kg	129 mg/kg	**338 mg/kg**
27S6 12-18 inch	BDL	<6.60 mg/kg	137 mg/kg	**360 mg/kg**
27S8 0-6 inch	BDL	<6.60 mg/kg	362 mg/kg	**180 mg/kg**
27S8 6-12 inch	BDL	<6.60 mg/kg	245 mg/kg	**96.4 mg/kg**
27S8 12-18 inch	BDL	<6.60 mg/kg	250 mg/kg	**99.0 mg/kg**
27S9 0-6 inch	BDL	<6.60 mg/kg	294 mg/kg	**207 mg/kg**
27S9 6-12 inch	BDL	<6.60 mg/kg	**627 mg/kg**	**248 mg/kg**
27S9 12-18 inch	BDL	<6.60 mg/kg	209 mg/kg	**134 mg/kg**
TAGMs		7.5 mg/kg	200-500 mg/kg	20 mg/kg

The majority of the samples had concentrations of zinc that exceeded the TAGM, therefore, that soil needs to be excavated and removed from the site. The concentration of zinc generally declined with depth below the ground surface, but exceeded the TAGM even at 18 inches below grade, the approximate groundwater interface.

Table of STARs for sample 27S5 0-6 inches. All concentrations are in micrograms per kilogram (parts per billion).

	27S5 0-6 inch	**27S5 6-12 inch**	**27S5 12-18 inch**	**NYS Allowable in Soil Standards**
n-butylbenzene	703	4,641	5,586	No standard
sec-butylbenzene	548	4,744	7,995	No standard
tert-butylbenzene	155	1,031	347	No standard
isopropylbenzene	296	2,169	3,208	No standard
p-isopropyltoluene	1,122	7,246	6,010	No standard

n-propylbenzene	364	3,980	6,811	No standard
Ethylbenzene	305	1,311	680	5,500
Naphthalene	3,088	13,916	<100	13,000
1,2,4-trimethylbenzene	15,617	133,395	161,593	3,400
1,3,5-trimethylbenzene	2,468	8,560	297	No standard
P&m xylene	735	1,209	<200	1,200
o-xylene	203	184	<100	Included in 1,200

The soils in the vicinity of sampling location 27S5 were discolored and had a distinct petroleum odor that extended from the ground surface to the groundwater table at approximately 18 inches. The groundwater, however, did not have a sheen on it.

The soil needs to be excavated to a depth of eighteen inches below grade and disposed of off-site. The concentration of the metals in the soils are at a concentration that will result in the soil being disposed of as non-hazardous waste. Therefore it is estimated that a 2,000 square foot portion will have to be excavated to a depth of 1.5 feet below grade. The estimated cost of disposing of this material, assuming that the cost per ton is $97, would be approximately $25,000. The cost of fill would be $2,100. Laboratory analysis and AEL labor would be additional.

Southern Parcel Soils

Table 1 is a compilation of the laboratory data for the three metals – arsenic, lead and zinc. The concentrations shown were for the samples collected from 0-6 inches below grade. The samples collected in November 1999 are designated MSB#1 through MSB#5 while, the July 2001 samples are designated 27MSB#1 through 27MSB#5.

Table 1 Comparison of concentrations of arsenic, lead and zinc in soils on the southern parcel. All concentrations are in milligrams per kilogram (mg/kg).

Metal	MSB #1	27MSB#1	MSB#2	27MSB#2	MSB#3	27MSB#3	MSB#4	27MSB#4	MSB#5	27MSB#5
arsenic	11	<6.60	22	<6.60	41	<6.60	25	<6.60	16	<6.60
lead	170	789	32	506	28	143	28	43	120	400
zinc	220	717	150	235	130	67.8	75	4.02	230	515

At each sampling location on the southern parcel, the concentrations of arsenic, lead and zinc were compared at 0-6 inches, 6-12 inches and 12-18 inches below grade. The concentration of arsenic was the same at each sampling location and depth – all below the laboratory detection limit of 6.6 mg/kg. The concentrations of lead and zinc are presented in Table 2.

Table 2 Concentration of lead at various depths in the soils on the southern parcel. All concentrations are in milligrams per kilogram (mg/kg).

	27MSB#1	27MSB#2	27MSB#3	27MSB#4	27MSB#5	TAGM
0-6"	**789**	**506**	143	43	400	200-500
6-12"	**393**	408	85.9	145	365	
12-18"	**627**	84.9	19.1	88.4	NS	

Table 3 Concentration of zinc at various depths in the soils on the southern parcel. All concentrations are in milligrams per kilogram (mg/kg).

	27MSB#1	27MSB#2	27MSB#3	27MSB#4	27MSB#5	TAGM
0-6"	717	**235**	**67.8**	4.02	**515**	20 or SB
6-12"	**281**	**267**	**46.1**	**1,083**	**423**	
12-18"	**491**	**50.4**	10.2	10.9	NS	

Based on the above sampling, the top 24 inches of soil from an area that is approximately 1,500 square feet should be removed from most of the southern parcel. This removal would equal approximately 200 tons of contaminated soil. Due to the elevated concentration of metals in the soils, the cost of disposal would be $185 per ton or approximately $37,000. Backfill would cost approximately $1,200.

Endpoint sampling and analysis are not included in the above cost estimate.

If you have any questions, please call me.

Very truly yours,

Dean Anson II

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994920.01 11/23/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Homan Avenue TCLP/BN
COLLECTED BY: Client DATE COL'D:11/12/99 RECEIVED:11/12/99

SAMPLE: Soil sample, WC#1, composite

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
2,4-Dinitrotoluene	ug/L*	<10	
Hexachlorobenzene	ug/L*	<10	
Hexachlorobutadiene	ug/L*	<10	
Hexachloroethane	ug/L*	<10	
Nitrobenzene	ug/L*	<10	
Pyridine	ug/L*	<10	

cc:

REMARKS: * Analysis performed on TCLP Leachate according to USEPA Method 1311.
Base/Neutral Extractable SVOCs by EPA Method 8270.
Sample was composited by EcoTest.

DIRECTOR

rn= 29122 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994920.02 11/23/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Homan Avenue
COLLECTED BY: Client DATE COL'D:11/12/99 RECEIVED:11/12/99

SAMPLE: Soil sample, WC#2, composite

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	13	
Barium as Ba	mg/Kg	140	
Cadmium as Cd	mg/Kg	8.0	
Chromium as Cr	mg/Kg	87	
Lead as Pb	mg/Kg	820	
Mercury as Hg	mg/Kg	0.62	
Selenium as Se	mg/Kg	<0.4	
Silver as Ag	mg/Kg	<1	
% Solids		95	
Tot.Organic Halogens	mg/Kg	<10	
Petrol. Hydrocarbons	mg/Kg	2000	
Reactive cyanide	mg/Kg	<2	
Sulfide as S	mg/Kg	<2	
Flash Point deg C		>100	
pH (lab) units		7.7	

cc:

REMARKS: Sample was composited by EcoTest.
TOX by LAB ID No.11693.

DIRECTOR

rn= 29125 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994920.02 11/23/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Homan Avenue
COLLECTED BY: Client DATE COL'D:11/12/99 RECEIVED:11/12/99

SAMPLE: Soil sample, WC#2, composite

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Aroclor 1016	ug/Kg	<800	
Aroclor 1221	ug/Kg	<800	
Aroclor 1232	ug/Kg	<800	
Aroclor 1242	ug/Kg	<800	
Aroclor 1248	ug/Kg	<800	
Aroclor 1254	ug/Kg	2900	
Aroclor 1260	ug/Kg	<800	

cc:

REMARKS: Sample was composited by EcoTest.

DIRECTOR

rn= 29126 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994920.05 11/23/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Homan Avenue
COLLECTED BY: Client DATE COL'D:11/12/99 RECEIVED:11/12/99

SAMPLE: Soil sample, MSB #3

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	41	
Barium as Ba	mg/Kg	31	
Cadmium as Cd	mg/Kg	<1	
Chromium as Cr	mg/Kg	11	
Lead as Pb	mg/Kg	28	
Mercury as Hg	mg/Kg	0.061	
Selenium as Se	mg/Kg	0.76	
Silver as Ag	mg/Kg	<1	
Copper as Cu	mg/Kg	21	
Zinc as Zn	mg/Kg	130	
% Solids		91	

cc:

REMARKS:

DIRECTOR

rn= 29083 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994920.07 11/23/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Homan Avenue
COLLECTED BY: Client DATE COL'D:11/12/99 RECEIVED:11/12/99

SAMPLE: Soil sample, MSB #5

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	16	
Barium as Ba	mg/Kg	75	
Cadmium as Cd	mg/Kg	2.0	
Chromium as Cr	mg/Kg	33	
Lead as Pb	mg/Kg	120	
Mercury as Hg	mg/Kg	0.047	
Selenium as Se	mg/Kg	0.60	
Silver as Ag	mg/Kg	<1	
Copper as Cu	mg/Kg	180	
Zinc as Zn	mg/Kg	230	
% Solids		95	

cc:

REMARKS:

DIRECTOR

rn= 29085 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994920.08 11/23/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Homan Avenue
COLLECTED BY: Client DATE COL'D:11/12/99 RECEIVED:11/12/99

SAMPLE: Soil sample, MSB #6

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	13	
Barium as Ba	mg/Kg	42	
Cadmium as Cd	mg/Kg	<1	
Chromium as Cr	mg/Kg	9.2	
Lead as Pb	mg/Kg	32	
Mercury as Hg	mg/Kg	0.074	
Selenium as Se	mg/Kg	<0.4	
Silver as Ag	mg/Kg	<1	
Copper as Cu	mg/Kg	31	
Zinc as Zn	mg/Kg	79	
% Solids		96	

cc:

REMARKS:

DIRECTOR

rn= 29086 NYSDOH ID# 10320

EcoTest Laboratories, Inc. • Environmental Testing
77 Sheffield Avenue, North Babylon, New York 11703
(516) 422-5777 • FAX (516) 422-5770

CHAIN OF CUSTODY RECORD

Client: Anson Environmental Ltd.
Address: 771 NY Ave
Huntington
Phone: 351-3555 FAX: 351-3615
Person receiving report: F. Grosdidier
Sampled by: D. Anson
Source: 38 [illegible] Ave
Job No.:

MATRIX (Soil, Water, etc.)	COLLECTED DATE	COLLECTED TIME	SAMPLE IDENTIFICATION	TOTAL NUMBER OF CONTAINERS	Waste characterization	BLEX/PAH/Pb + Cu/Cd													REMARKS—TESTS REQUIRED, SPECIAL TURNAROUND, SPECIAL Q.C. etc
Soil	11/12		WC#1	3	3														waste characterization composite
Soil	11/12		WC#2	4	4														" " " "
Soil	11/12		MSB#1	1	[illegible]	1													
Soil	11/12		MSB#2	1		1													
Soil	11/12		MSB#3	1		1													1 week TAT
			MSB#4	1		1													
			MSB#5	1		1													
			MSB#6	1		1													
			MSB#7	1		1													
																			will call with waste char. parameters

Relinquished by: (Signature)	DATE/TIME	SEAL INTACT ?	Received by: (Signature)	Relinquished by: (Signature)	DATE/TIME	SEAL INTACT ?	Received by: (Signature)
[signature] Representing: [illegible]	11/12	YES NO NA	[signature] Representing: [illegible]	Representing:		YES NO NA	Representing:
Relinquished by: (Signature) Representing:	DATE/TIME	SEAL INTACT ? YES NO NA	Received by: (Signature) Representing:	Relinquished by: (Signature) Representing:	DATE/TIME	SEAL INTACT ? YES NO NA	Received by: (Signature) Representing:

ECOTEST LABORATORIES, INC. • ENVIRONMENTAL TESTING
377 Sheffield Avenue, North Babylon, New York 11703
(516) 422-5777 • FAX (516) 422-5770

CHAIN OF CUSTODY RECORD

Client: Anson Environmental Ltd.
Address: 771 New York Ave.
Huntington 11743
Phone: 351 3555 FAX: 351 3615
Person receiving report: Fritzi Grossbarth
Sampled by: N. DeLuca / F. Grossbarth
Source: 38 [illegible] Avenue
Job No.: 99108

MATRIX (Soil, Water, etc.)	COLLECTED DATE	COLLECTED TIME	SAMPLE IDENTIFICATION	TOTAL NUMBER OF CONTAINERS	TYPE & NUMBER OF CONTAINERS: 8260													REMARKS–TESTS REQUIRED, SPECIAL TURNAROUND, SPECIAL Q.C. etc
soil	11/3/99	10:35	#6	1	1													normal TAT
soil	11/3/99	11:30	#7	1	1													
soil	11/3/99	12:00	#8	1	1													

Relinquished by: (Signature)	DATE/TIME	SEAL INTACT ?	Received by: (Signature)	Relinquished by: (Signature)	DATE/TIME	SEAL INTACT ?	Received by: (Signature)
[signature] Representing:	11/3/99	YES NO NA	[signature] Representing:	Representing:		YES NO NA	Representing:
Relinquished by: (Signature) Representing:	DATE/TIME	SEAL INTACT ? YES NO NA	Received by: (Signature) Representing:	Relinquished by: (Signature) Representing:	DATE/TIME	SEAL INTACT ? YES NO NA	Received by: (Signature) Representing:

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994920.06 11/23/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Homan Avenue
COLLECTED BY: Client DATE COL'D:11/12/99 RECEIVED:11/12/99

SAMPLE: Soil sample, MSB #4

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	25	
Barium as Ba	mg/Kg	26	
Cadmium as Cd	mg/Kg	<1	
Chromium as Cr	mg/Kg	8.8	
Lead as Pb	mg/Kg	28	
Mercury as Hg	mg/Kg	0.048	
Selenium as Se	mg/Kg	0.82	
Silver as Ag	mg/Kg	<1	
Copper as Cu	mg/Kg	30	
Zinc as Zn	mg/Kg	75	
% Solids		93	

cc:

REMARKS:

DIRECTOR

rn= 29084 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994776.03 11/12/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Haman Avenue, #99108
COLLECTED BY: Client DATE COL'D:11/03/99 RECEIVED:11/03/99

SAMPLE: Soil sample, #8, 2:00 pm

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
p-Isopropyltoluene	ug/Kg	<2	
1,3 Dichlorobenzene	ug/Kg	<2	
1,4 Dichlorobenzene	ug/Kg	<2	
n-Butylbenzene	ug/Kg	<2	
1,2 Dichlorobenzene	ug/Kg	<2	
Dibromochloropropane	ug/Kg	<2	
124-Trichlorobenzene	ug/Kg	<2	
Hexachlorobutadiene	ug/Kg	<2	
Naphthalene	ug/Kg	<2	
123-Trichlorobenzene	ug/Kg	<2	
ter.ButylMethylEther	ug/Kg	<2	
p-Ethyltoluene	ug/Kg	<2	
Freon 113	ug/Kg	<2	
1245 Tetramethylbenz	ug/Kg!	<2	
Acetone	ug/Kg	<20	
Methyl Ethyl Ketone	ug/Kg	<20	
Methylisobutylketone	ug/Kg	<20	
Chlorodifluoromethan	ug/Kg	<2	
p Diethylbenzene	ug/Kg	<2	
% Solids		83	

cc:

REMARKS: VOC by EPA Method 8260. Page 2 of 2.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene

DIRECTOR

rn= 28053 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994776.03 11/12/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Haman Avenue, #99108
COLLECTED BY: Client DATE COL'D:11/03/99 RECEIVED:11/03/99

SAMPLE: Soil sample, #8, 2:00 pm

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS		
Dichlordifluomethane	ug/Kg	<2	t-1,3Dichloropropene	ug/Kg	<2
Chloromethane	ug/Kg	<2	112 Trichloroethane	ug/Kg	<2
Vinyl Chloride	ug/Kg	<2	Tetrachloroethene	ug/Kg	<2
Bromomethane	ug/Kg	<2	1,3-Dichloropropane	ug/Kg	<2
Chloroethane	ug/Kg	<2	Chlorodibromomethane	ug/Kg	<2
Trichlorofluomethane	ug/Kg	<2	1,2 Dibromoethane	ug/Kg	<2
1,1 Dichloroethene	ug/Kg	<2	Chlorobenzene	ug/Kg	<2
Methylene Chloride	ug/Kg	<2	Ethyl Benzene	ug/Kg	<2
t-1,2-Dichloroethene	ug/Kg	<2	1112Tetrachloroethan	ug/Kg	<2
1,1 Dichloroethane	ug/Kg	<2	m + p Xylene	ug/Kg	<4
2,2-Dichloropropane	ug/Kg	<2	o Xylene	ug/Kg	<2
c-1,2-Dichloroethene	ug/Kg	<2	Styrene	ug/Kg	<2
Bromochloromethane	ug/Kg	<2	Bromoform	ug/Kg	<2
Chloroform	ug/Kg	<2	Isopropylbenzene	ug/Kg	<2
111 Trichloroethane	ug/Kg	<2	Bromobenzene	ug/Kg	<2
Carbon Tetrachloride	ug/Kg	<2	1122Tetrachloroethan	ug/Kg	<2
1,1-Dichloropropene	ug/Kg	<2	123-Trichloropropane	ug/Kg	<2
Benzene	ug/Kg	<2	n-Propylbenzene	ug/Kg	<2
1,2 Dichloroethane	ug/Kg	<2	2-Chlorotoluene	ug/Kg	<2
Trichloroethylene	ug/Kg	<2	135-Trimethylbenzene	ug/Kg	<2
1,2 Dichloropropane	ug/Kg	<2	4-Chlorotoluene	ug/Kg	<2
Dibromomethane	ug/Kg	<2	tert-Butylbenzene	ug/Kg	<2
Bromodichloromethane	ug/Kg	<2	124-Trimethylbenzene	ug/Kg	<2
c-1,3Dichloropropene	ug/Kg	<2	sec-Butylbenzene	ug/Kg	<2
Toluene	ug/Kg	<2			

cc:

REMARKS: Volatile Organic Compounds by EPA Method 8260.
Page 1 of 2.

DIRECTOR

rn= 28052 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994920.09 11/23/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Homan Avenue
COLLECTED BY: Client DATE COL'D:11/12/99 RECEIVED:11/12/99

SAMPLE: Soil sample, MSB #7

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	12	
Barium as Ba	mg/Kg	33	
Cadmium as Cd	mg/Kg	<1	
Chromium as Cr	mg/Kg	17	
Lead as Pb	mg/Kg	67	
Mercury as Hg	mg/Kg	0.041	
Selenium as Se	mg/Kg	0.50	
Silver as Ag	mg/Kg	<1	
Copper as Cu	mg/Kg	66	
Zinc as Zn	mg/Kg	99	
% Solids		95	

cc:

REMARKS:

DIRECTOR

rn= 29087 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994920.03 11/23/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Homan Avenue
COLLECTED BY: Client DATE COL'D:11/12/99 RECEIVED:11/12/99

SAMPLE: Soil sample, MSB #1

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	11	
Barium as Ba	mg/Kg	40	
Cadmium as Cd	mg/Kg	4.7	
Chromium as Cr	mg/Kg	51	
Lead as Pb	mg/Kg	170	
Mercury as Hg	mg/Kg	0.041	
Selenium as Se	mg/Kg	<0.4	
Silver as Ag	mg/Kg	<1	
Copper as Cu	mg/Kg	140	
Zinc as Zn	mg/Kg	220	
% Solids		93	

cc:

REMARKS:

DIRECTOR

rn= 29081 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994920.04 11/23/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Homan Avenue
COLLECTED BY: Client DATE COL'D:11/12/99 RECEIVED:11/12/99

SAMPLE: Soil sample, MSB #2

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	22	
Barium as Ba	mg/Kg	33	
Cadmium as Cd	mg/Kg	<1	
Chromium as Cr	mg/Kg	8.4	
Lead as Pb	mg/Kg	32	
Mercury as Hg	mg/Kg	0.058	
Selenium as Se	mg/Kg	0.82	
Silver as Ag	mg/Kg	<1	
Copper as Cu	mg/Kg	38	
Zinc as Zn	mg/Kg	150	
% Solids		94	

cc:

REMARKS:

DIRECTOR

rn= 29082 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994776.01 11/12/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Haman Avenue, #99108
COLLECTED BY: Client DATE COL'D:11/03/99 RECEIVED:11/03/99

SAMPLE: Soil sample, #6, 10:30 am

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS		
Dichlordifluomethane	ug/Kg	<2	t-1,3Dichloropropene	ug/Kg	<2
Chloromethane	ug/Kg	<2	112 Trichloroethane	ug/Kg	<2
Vinyl Chloride	ug/Kg	<2	Tetrachloroethene	ug/Kg	<2
Bromomethane	ug/Kg	<2	1,3-Dichloropropane	ug/Kg	<2
Chloroethane	ug/Kg	<2	Chlorodibromomethane	ug/Kg	<2
Trichlorofluomethane	ug/Kg	<2	1,2 Dibromoethane	ug/Kg	<2
1,1 Dichloroethene	ug/Kg	<2	Chlorobenzene	ug/Kg	<2
Methylene Chloride	ug/Kg	<2	Ethyl Benzene	ug/Kg	<2
t-1,2-Dichloroethene	ug/Kg	<2	1112Tetrachloroethan	ug/Kg	<2
1,1 Dichloroethane	ug/Kg	<2	m + p Xylene	ug/Kg	<4
2,2-Dichloropropane	ug/Kg	<2	o Xylene	ug/Kg	<2
c-1,2-Dichloroethene	ug/Kg	<2	Styrene	ug/Kg	<2
Bromochloromethane	ug/Kg	<2	Bromoform	ug/Kg	<2
Chloroform	ug/Kg	<2	Isopropylbenzene	ug/Kg	<2
111 Trichloroethane	ug/Kg	<2	Bromobenzene	ug/Kg	<2
Carbon Tetrachloride	ug/Kg	<2	1122Tetrachloroethan	ug/Kg	<2
1,1-Dichloropropene	ug/Kg	<2	123-Trichloropropane	ug/Kg	<2
Benzene	ug/Kg	<2	n-Propylbenzene	ug/Kg	<2
1,2 Dichloroethane	ug/Kg	<2	2-Chlorotoluene	ug/Kg	<2
Trichloroethylene	ug/Kg	<2	135-Trimethylbenzene	ug/Kg	<2
1,2 Dichloropropane	ug/Kg	<2	4-Chlorotoluene	ug/Kg	<2
Dibromomethane	ug/Kg	<2	tert-Butylbenzene	ug/Kg	<2
Bromodichloromethane	ug/Kg	<2	124-Trimethylbenzene	ug/Kg	<2
c-1,3Dichloropropene	ug/Kg	<2	sec-Butylbenzene	ug/Kg	<2
Toluene	ug/Kg	<2			

cc:

REMARKS: Volatile Organic Compounds by EPA Method 8260.
Page 1 of 2.

DIRECTOR

rn= 28048 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994776.01 11/12/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Haman Avenue, #99108
COLLECTED BY: Client DATE COL'D:11/03/99 RECEIVED:11/03/99

SAMPLE: Soil sample, #6, 10:30 am

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
p-Isopropyltoluene	ug/Kg	<2	
1,3 Dichlorobenzene	ug/Kg	<2	
1,4 Dichlorobenzene	ug/Kg	<2	
n-Butylbenzene	ug/Kg	<2	
1,2 Dichlorobenzene	ug/Kg	<2	
Dibromochloropropane	ug/Kg	<2	
124-Trichlorobenzene	ug/Kg	<2	
Hexachlorobutadiene	ug/Kg	<2	
Naphthalene	ug/Kg	<2	
123-Trichlorobenzene	ug/Kg	<2	
ter.ButylMethylEther	ug/Kg	<2	
p-Ethyltoluene	ug/Kg	<2	
Freon 113	ug/Kg	<2	
1245 Tetramethylbenz	ug/Kg!	<2	
Acetone	ug/Kg	<20	
Methyl Ethyl Ketone	ug/Kg	<20	
Methylisobutylketone	ug/Kg	<20	
Chlorodifluoromethan	ug/Kg	<2	
p Diethylbenzene	ug/Kg	<2	
% Solids		89	

cc:

REMARKS: VOC by EPA Method 8260. Page 2 of 2.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene

DIRECTOR

rn= 28049 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994776.02 11/12/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Haman Avenue, #99108
COLLECTED BY: Client DATE COL'D:11/03/99 RECEIVED:11/03/99

SAMPLE: Soil sample, #7, 1:30 pm

ANALYTICAL PARAMETERS		
Dichlordifluomethane	ug/Kg	<5
Chloromethane	ug/Kg	<5
Vinyl Chloride	ug/Kg	<5
Bromomethane	ug/Kg	<5
Chloroethane	ug/Kg	<5
Trichlorofluomethane	ug/Kg	<5
1,1 Dichloroethene	ug/Kg	<5
Methylene Chloride	ug/Kg	<5
t-1,2-Dichloroethene	ug/Kg	<5
1,1 Dichloroethane	ug/Kg	<5
2,2-Dichloropropane	ug/Kg	<5
c-1,2-Dichloroethene	ug/Kg	23
Bromochloromethane	ug/Kg	<5
Chloroform	ug/Kg	<5
111 Trichloroethane	ug/Kg	<5
Carbon Tetrachloride	ug/Kg	<5
1,1-Dichloropropene	ug/Kg	<5
Benzene	ug/Kg	<5
1,2 Dichloroethane	ug/Kg	<5
Trichloroethylene	ug/Kg	8
1,2 Dichloropropane	ug/Kg	<5
Dibromomethane	ug/Kg	<5
Bromodichloromethane	ug/Kg	<5
c-1,3Dichloropropene	ug/Kg	<5
Toluene	ug/Kg	<5

ANALYTICAL PARAMETERS		
t-1,3Dichloropropene	ug/Kg	<5
112 Trichloroethane	ug/Kg	<5
Tetrachloroethene	ug/Kg	48
1,3-Dichloropropane	ug/Kg	<5
Chlorodibromomethane	ug/Kg	<5
1,2 Dibromoethane	ug/Kg	<5
Chlorobenzene	ug/Kg	<5
Ethyl Benzene	ug/Kg	5
1112Tetrachloroethan	ug/Kg	<5
m + p Xylene	ug/Kg	10
o Xylene	ug/Kg	<5
Styrene	ug/Kg	<5
Bromoform	ug/Kg	<5
Isopropylbenzene	ug/Kg	<5
Bromobenzene	ug/Kg	<5
1122Tetrachloroethan	ug/Kg	<5
123-Trichloropropane	ug/Kg	<5
n-Propylbenzene	ug/Kg	<5
2-Chlorotoluene	ug/Kg	<5
135-Trimethylbenzene	ug/Kg	<5
4-Chlorotoluene	ug/Kg	<5
tert-Butylbenzene	ug/Kg	<5
124-Trimethylbenzene	ug/Kg	6
sec-Butylbenzene	ug/Kg	<5

cc:

REMARKS: Volatile Organic Compounds by EPA Method 8260.
Page 1 of 2.

DIRECTOR

rn= 28050 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994776.02 11/12/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Haman Avenue, #99108
COLLECTED BY: Client DATE COL'D:11/03/99 RECEIVED:11/03/99

SAMPLE: Soil sample, #7, 1:30 pm

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
p-Isopropyltoluene	ug/Kg	<5	
1,3 Dichlorobenzene	ug/Kg	<5	
1,4 Dichlorobenzene	ug/Kg	<5	
n-Butylbenzene	ug/Kg	<5	
1,2 Dichlorobenzene	ug/Kg	<5	
Dibromochloropropane	ug/Kg	<5	
124-Trichlorobenzene	ug/Kg	<5	
Hexachlorobutadiene	ug/Kg	<5	
Naphthalene	ug/Kg	<5	
123-Trichlorobenzene	ug/Kg	<5	
ter.ButylMethylEther	ug/Kg	<5	
p-Ethyltoluene	ug/Kg	6	
Freon 113	ug/Kg	<5	
1245 Tetramethylbenz	ug/Kg!	<5	
Acetone	ug/Kg	<50	
Methyl Ethyl Ketone	ug/Kg	<50	
Methylisobutylketone	ug/Kg	<50	
Chlorodifluoromethan	ug/Kg	<5	
p Diethylbenzene	ug/Kg	<5	
% Solids		76	

cc:

REMARKS: VOC by EPA Method 8260. Page 2 of 2.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene

DIRECTOR

rn= 28051 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994920.02 12/02/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Homan Avenue TCLPMET
COLLECTED BY: Client DATE COL'D:11/12/99 RECEIVED:11/12/99

SAMPLE: Soil sample, WC#2, composite

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/L*	<0.025	
Barium as Ba	mg/L*	0.74	
Cadmium as Cd	mg/L*	0.044	
Chromium as Cr	mg/L*	<0.025	
Lead as Pb	mg/L*	0.48	
Mercury as Hg	mg/L*	<0.001	
Selenium as Se	mg/L*	<0.05	
Silver as Ag	mg/L*	<0.025	

cc:

REMARKS: * Analysis performed on TCLP Leachate according to USEPA Method 1311.

DIRECTOR

rn= 29812 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994920.01 11/23/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Homan Avenue TCLP/ZHE
COLLECTED BY: Client DATE COL'D:11/12/99 RECEIVED:11/12/99

SAMPLE: Soil sample, WC#1, composite

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Carbon Tetrachloride	ug/L*	<1	
Chlorobenzene	ug/L*	<1	
Chloroform	ug/L*	<1	
1,4 Dichlorobenzene	ug/L*	<2	
1,2 Dichloroethane	ug/L*	<1	
1,1 Dichloroethene	ug/L*	<1	
Methyl Ethyl Ketone	ug/L*	<20	
Tetrachloroethene	ug/L*	<1	
Trichloroethylene	ug/L*	<1	
Vinyl Chloride	ug/L*	<1	
Benzene	ug/L*	<1	

cc:

REMARKS: * Analysis performed on TCLP Leachate according to USEPA Method 1311.
Sample was composited by EcoTest.

DIRECTOR

rn= 29121 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994920.01 11/23/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Homan Avenue TCLP/MET
COLLECTED BY: Client DATE COL'D:11/12/99 RECEIVED:11/12/99

SAMPLE: Soil sample, WC#1, composite

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/L*	<0.05	
Barium as Ba	mg/L*	0.19	
Cadmium as Cd	mg/L*	<0.05	
Chromium as Cr	mg/L*	<0.05	
Lead as Pb	mg/L*	<0.05	
Mercury as Hg	mg/L*	<0.001	
Selenium as Se	mg/L*	<0.05	
Silver as Ag	mg/L*	<0.05	

cc:

REMARKS: * Analysis performed on TCLP Leachate according to USEPA Method 1311.
Sample was composited by EcoTest.

DIRECTOR

rn= 29123 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994920.01 11/23/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Homan Avenue
COLLECTED BY: Client DATE COL'D:11/12/99 RECEIVED:11/12/99

SAMPLE: Soil sample, WC#1, composite

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Reactive cyanide	mg/Kg	<2	
Sulfide as S	mg/Kg	<2	
Flash Point deg C	mg/Kg	>100	
pH (lab)	units	7.7	

cc:

REMARKS: Sample was composited by EcoTest.

DIRECTOR

rn= 29124 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TES

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.994776.02 11/12/99

Anson Environmental Ltd.
771 New York Avenue
Huntington, NY 11743
ATTN: Fritzi Gros Daillon

SOURCE OF SAMPLE: 38 Haman Avenue, #99108
COLLECTED BY: Client DATE COL'D:11/03/99 RECEIVED:11/03/99

SAMPLE: Soil sample, #7, 1:30 pm

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
p-Isopropyltoluene	ug/Kg	<5	
1,3 Dichlorobenzene	ug/Kg	<5	
1,4 Dichlorobenzene	ug/Kg	<5	
n-Butylbenzene	ug/Kg	<5	
1,2 Dichlorobenzene	ug/Kg	<5	
Dibromochloropropane	ug/Kg	<5	
124-Trichlorobenzene	ug/Kg	<5	
Hexachlorobutadiene	ug/Kg	<5	
Naphthalene	ug/Kg	<5	
123-Trichlorobenzene	ug/Kg	<5	
ter.ButylMethylEther	ug/Kg	<5	
p-Ethyltoluene	ug/Kg	6	
Freon 113	ug/Kg	<5	
1245 Tetramethylbenz	ug/Kg!	<5	
Acetone	ug/Kg	<50	
Methyl Ethyl Ketone	ug/Kg	<50	
Methylisobutylketone	ug/Kg	<50	
Chlorodifluoromethan	ug/Kg	<5	
p Diethylbenzene	ug/Kg	<5	
% Solids		76	

cc:

REMARKS: VOC by EPA Method 8260. Page 2 of 2.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene

DIRECTOR

rn= 28051 NYSDOH ID# 10320