SCANNED

IMMEDIATE RESPONSE ACTION COMPLETION REPORT 1010 COMMONWEALTH AVENUE BROOKLINE, MASSACHUSETTS RTN – 3-20504

Prepared For:
1010 Commonwealth LLC
c/o ZVI Construction Company, Inc.
930 Commonwealth Avenue, South
Boston, MA 02114

Prepared By:
TGG Environmental, Inc.
Needham, Massachusetts

File No. HC3128.03
November 2001

TABLE OF CONTENTS

		PAGE
a.1	Description of Release	1
a.2	Description of Site Conditions	2
a.3	Surrounding Receptors	2
b.1	Work Completed as Part of IRA	3
	Underground Storage Tank Removal	3
	Soil Remediation	3
	Soil, Ground Water and Air Monitoring	3
	Imminent Hazard Evaluation	3
c.	All Investigation and Monitoring Data Obtained	4
	Soil	4
	Sidewall of Tank Grave	4
	Bottom of Tank Grave and Stockpile	4
	Soil Boring B-8	5
	Adjacent Excavation for New Oil Water Separator	5
	Ground Water	6
	Within 25 Feet of Tank Grave	6
	Downgradient Area of Second Disposal Site on Property	6
	Air (Soil Gas)	7
d.	Succinct Statement of Findings and Conclusions of IRA Plan	7
e.	Details and Documentation of Remediation Waste as Part of IRA	8
	Tank Removal	8
	Soil Excavation	8
f.	Ongoing Activities Related To IRA That Will Be Conducted Including Monitoring, Maintenance	9

FIGURES

Figure 1 – Site Locus Plan
Figure 2 – Exploration Location Plan

TABLES

Table 1 – 100 Gallon UST Grave – Sidewall Soil Samples
Table 2 – Stockpiled Soil Samples
Table 3 – Test Boring B-8 Soil Sample
Table 4 – New Oil Water Separator Excavation Soil Samples
Table 5 – Ground Water Samples
Table 6 – Soil Gas Sample

APPENDICES

Appendix A – Bill of Lading
Appendix B – Laboratory Report – 100 Gallon UST Grave Sidewall Soil Samples
Appendix C – Laboratory Report – Stockpiled Soil Samples
Appendix D – Laboratory Report – Test Boring B-8 Soil Sample
Appendix E – Laboratory Report – New Oil Water Separator Excavation Soil Samples
Appendix F – Laboratory Report – Ground Water Samples
Appendix G – Laboratory Report – Soil Gas Sample
Appendix H – Hazardous Waste Manifest
Appendix I – Application and Permit for 100 Gallon UST Removal and Disposal Receipt

TGG®
ENVIRONMENTAL INC.
A Subsidiary of
The Geotechnical Group Inc.

November 1, 2001
File No. HC3128.03

Department of Environmental Protection
205 Lowell Street
Wilmington, MA 01887

Attention: Bureau of Waste Site Cleanup

RE: IRA Completion Report
1010 Commonwealth Avenue
Brookline, MA
RTN 3-20504

To Whom It May Concern:

TGG Environmental, Inc. (TGGE) is pleased to present this Immediate Response Action (IRA) Completion Report for the above referenced site, prepared on behalf of the Commonwealth of Massachusetts c/o Division of Capital Asset Management (DCAM). This document has been prepared in accordance with 310 CMR 40.0425 of the Massachusetts Contingency Plan (MCP). The site conditions warranting this submittal to the Department of Environmental Protection (DEP) were encountered on March 15, 2001 adjacent to a 100-gallon underground storage tank (UST) containing gasoline that was located under the basement floor of an existing building. A Site Locus Plan and Exploration Location Plan are attached as Figures 1 and 2, respectively.

a.1. Description of release

On March 15, 2001, a 100-gallon UST was discovered approximately one foot beneath the former basement floor slab elevation in the southwestern corner of the existing building. A 72-hour reportable release of oil to the environment was identified within ten feet of the exterior wall of the 100-gallon UST, as established by measurement of greater than 100 parts per million (ppm) by volume of total organic vapors of a benzene equivalent in the headspace of a soil sample. The soil sample was obtained at a depth greater than two feet below the ground surface, as part of a closure assessment for the removal of the UST. On March 16, 2001, TGGE verbally notified the DEP of the release, and obtained verbal approval from DEP to commence Immediate Response Actions. Release Tracking Number (RTN) 3-20504 was assigned to this release.

a.2. Description of site conditions

The subject property at 1010 Commonwealth Avenue in Brookline, Massachusetts is a square shaped parcel, containing approximately 25,500 square feet of land (approximately 0.59 acres). The property is occupied by a centrally located five-story, steel-framed building with a basement. The building and property have been unoccupied for several years, and are currently under redevelopment. Land use in the immediate vicinity of the site is mixed, with both commercial and residential properties.

The property was reportedly undeveloped until 1919 when Young Realty Company erected a structure for mercantile purposes. The United States Veterans Bureau operated a vocational school on the lot from 1924 to 1927 when McKenzie Engraving Company began operations. Between 1929 and 1931, Standard Oil Company of New York utilized a small portion of the lot (north of the main building) as a gasoline station, which was identified as 1006 Commonwealth Avenue. In 1942, McKenzie Engraving Company became McKenzie Realty Company and the latter occupied the lot until the Massachusetts Department of Public Safety (DPS) moved its operations into the main building at the site. In approximately 1946, the Commonwealth of Massachusetts purchased the property from McKenzie Realty Company and has owned it until the present day.

During occupancy by the DPS, several businesses also occupied the building. The Massachusetts State Police utilized a portion of the property as a computer center and crime and ballistics laboratory; the State Fire Marshall's Office utilized a portion of the property; and, Bunim Murray Productions utilized a portion of the property as a television production studio. The building has reportedly been unoccupied since 1996.

a.3. Surrounding receptors

A property at 996 Commonwealth Avenue is the location of Enterprise Rent-a-Car, and abuts the subject site to the east.

A senior residential care facility is located at 227 Babcock Street, on a property to the south that abuts the subject disposal site.

Several two-story residential apartment buildings, identified as 222 though 240 Babcock Street, are located to the southwest of the subject property, across Babcock Street. Other residences are located along Babcock Street, in a southerly direction from the disposal site.

A restaurant at 1016 Commonwealth Avenue is located to the west, at the intersection of Commonwealth Avenue and Babcock Street.

A college dormitory of Boston University is located approximately 200 feet to the north, on the westbound side of Commonwealth Avenue. Other storefronts and offices are located along Commonwealth Avenue.

b.1. Work completed as part of IRA

Assessment, containment and remediation work that was conducted at this disposal site was verbally approved by DEP, and was included in the written IRA Plan dated June 11, 2001.

Underground Storage Tank Removal

The source of this release was a 100-gallon UST. IRA activities that have been conducted by TGGE include removal of the tank.

Soil Remediation

Approximately 8 cubic yards of gasoline-contaminated soil were excavated from the tank grave, and initially stockpiled on an existing concrete slab in an area adjacent to the excavation. The affected soil was subsequently removed from the site for asphalt batch recycling, under a Bill of Lading that was also prepared for petroleum-contaminated soil that was disposed of as a Release Abatement Measure (RAM) for RTN 3-20631, also located at the subject property (see Appendix A for a copy of the Bill of Lading). Ground water was not observed in the excavation, to the depths explored.

Soil, Ground Water and Air Monitoring

The environmental monitoring plan consisted of assessment of the extent of the release and impact to soil, ground water and air. Soil, ground water and soil gas samples were collected during subsurface explorations and analyzed by a state-certified laboratory.

Imminent Hazard Evaluation

In accordance with 310 CMR 40.0321, Reporting of Releases and Threats of Releases that Pose or Could Pose an Imminent Hazard, the disposal site identified as 1010 Commonwealth Avenue in Brookline, Massachusetts does not appear to pose an Imminent Hazard to health, safety, public welfare and/or the environment based on the following criteria that are applicable to this release:

(a) At the time that the release of gasoline from a UST was discovered below the basement floor, gasoline vapors were readily ventilated to the outside. Several basement windows and sections of the northern and southern basement walls had been removed as part of a major building renovation, allowing for open-air ventilation of gasoline vapors. The remaining five levels of the building were also exposed to the elements, since the windows on these levels had also been removed during the renovation. PID readings in the basement area, within fifty feet of the tank grave, were stable and below 5 ppm.

(b) Gasoline is a petroleum-related waste that is flammable, but is not considered to be a reactive or explosive material.

c. All investigation and monitoring data obtained

Soil

On March 20, 2001, TGGE observed soil excavation from the tank grave, and collected soil samples in an attempt to define the extent of the release. Approximately 8 cubic yards of soil were excavated from the tank grave to a depth of approximately 7 feet below the basement floor slab. The excavated soil was stockpiled on the existing concrete floor slab to the west of the tank grave for subsequent disposal.

- Sidewalls of Tank Grave

Soil samples were obtained from the north sidewall (GT-NWL), south sidewall (GT-SWL), east sidewall (GT-EWL) and west sidewall (GT-WWL) of the tank grave excavation, at approximately 2 to 3 feet below the basement floor elevation. The samples were screened in the field with a PID indicating 3.2 units, 2.5 units, 6.8 units, and 18.2 units, respectively.

The soil samples collected from the 100-gallon tank grave sidewalls were delivered to Spectrum Analytical, Inc., (Spectrum) a state-certified laboratory located in Agawam, Massachusetts for volatile petroleum hydrocarbon (VPH) analyses. The results of the laboratory analysis of the tank grave sidewall samples indicated trace concentrations of C_5-C_8 aliphatic hydrocarbons and toluene in soil sample GT-SWL, well below the applicable Method 1 S-3/GW-3 risk based standards. The additional three soil samples indicated non-detection of VPH parameters. See Appendix B which contains the laboratory data summarized in Table 1.

- Bottom of Tank Grave and Stockpile

A soil sample obtained from the bottom of the excavation and screened in the field with a PID indicated results greater than 2,000 units. This soil sample was not analyzed, in anticipation of attempting to excavate more gas-contaminated soil. However, clearance restrictions on the excavator and the existence of a concrete floor slab around the tank grave restricted further vertical excavation of the tank grave.

On April 6, 2001, TGGE collected two soil samples (Stkpl-1/S-1 and Stkpl-1/S-2) from the stockpiled soil excavated from the 100-gallon tank grave on March 20, 2001 (see Figure 2). Both soil samples were screened in the field with a PID, the results of which indicated greater than 2,000 units. These samples were delivered to Spectrum for VPH analysis and the results indicated VPH fractions that exceeded their applicable Method 1 risk-based standards (see Table 2, which summarizes the laboratory data contained in Appendix C).

Since there was no additional soil excavation in the tank grave after March 20, 2001, TGGE also analyzed the two soil stockpile samples as indicative of soil conditions at the bottom of the tank grave.

- Soil Boring B-8

On May 30, 2001 TGGE observed the advancement of soil boring B-8, which was finished as a ground water monitoring well, located approximately 25 feet northeast and downgradient of the 100-gallon capacity tank grave (see Figure 2). The existence of subsurface drain lines, electrical conduits and a support structure for the building prevented drilling closer to the tank grave. TGGE collected six soil samples from the boring at depths ranging from 5 to 32 feet below the basement floor slab. The soil samples were screened in the field with a PID, the results of which indicated between 0.0 and 2.2 units.

The sample with the highest PID reading, B-8/S-4, obtained from a depth of between 20 to 22 feet, was delivered to Spectrum for VPH analysis and the results indicated trace concentrations of C_9-C_{10} aromatic hydrocarbons and naphthalene, both well below their applicable Method 1 risk based standards (see Table 3 for a summary of this laboratory data contained in Appendix D).

- Adjacent Excavation for New Oil Water Separator

As part of the soil assessment, on March 15 and March 21, 2001 TGGE collected three soil samples (OWSEP-1 through OWSEP-3) from an open pit that was excavated to a depth of approximately 10 feet below the basement floor. The open pit, located approximately 12 feet to the east of the tank grave, was reportedly installed to house a future oil water separator. The samples were obtained from depths ranging from 1 to 7 feet below the concrete floor slab (see Figure 2 for sample locations). The samples were screened in the field with a PID, and the results ranged between 2 and 187 units.

The two samples with the highest field screening reading, OWSEP-1 and OWSEP-3 (16.2 units and 187 units respectively), were delivered to Spectrum for VPH analysis. The results of this analysis indicated trace concentrations of VPH fractions and naphthalene in OWSEP-1 at concentrations well below their applicable Method 1 S-3/GW-3 risk-based standards. The laboratory results of the OWSEP-3 sample indicated non-detection for the parameters analyzed. See Table 4 for a summary of this laboratory contained in Appendix E.

Ground Water

Ground water monitoring well B-8 was installed in May 2001 as part of this IRA assessment. The elevation of ground water within this monitoring well was observed to be approximately 21 feet below the basement floor slab. Four additional monitoring wells, B-1 through B-3 and B-5B, were installed on the property in 2001 as part of a RAM assessment of another disposal site (RTN 3-20631). The ground water elevations within these four additional wells were also observed to be approximately 21 feet below the basement floor slab. Based on the results of a ground water elevation survey conducted on July 2, 2001, ground water appears to flow to the northeast at the subject property. See Figure 2 for monitoring well locations.

Laboratory data for ground water samples collected during TGGE's studies were compared to the risk-based category of GW-3, based on ground water levels that were reported at greater than fifteen feet below the elevation of the basement floor.

- Within 25 feet of Tank Grave

TGGE installed one ground water monitoring well B-8 within the existing building footprint on May 30, 2001 approximately 25 feet downgradient of the 100-gallon UST. A soil sample from B-8 was collected on May 30, 2001 for laboratory analyses, the results of which are discussed in the **Soil** Section above.

- Downgradient Area of Second Disposal Site on Property

Monitoring wells B-1 through B-3, B-5B and B-8 are considered to be downgradient of the 100-gallon UST gasoline release (RTN 3-20504). On March 1, 2001 ground water samples were collected from monitoring wells B-1 through B-3, and on July 2, 2001 ground water samples were collected from B-5B and B-8.

The ground water samples collected on March 1, 2001 from monitoring wells B-1 through B-3 were delivered to Spectrum for volatile organic compounds (VOCs) and extractable and volatile petroleum hydrocarbons (EVPH) analysis. Results indicated the presence of several VOC and VPH compounds in the ground water at these locations, at concentrations below their applicable reportable concentrations and below the applicable GW-3 risk based standards. Results of the EPH analysis indicated non-detection of the compound ranges and target compounds analyzed. It should be noted that monitoring well B-2 is a downgradient well located within the boundaries of another disposal site at the subject property (RTN 3-20631), and therefore the source of VOC and VPH compounds identified may be a former oil-water separator, and not indicative of the release from the 100-gallon gasoline UST (RTN 3-20504).

The two remaining monitoring wells, B-5B and B-8 were sampled on July 2, 2001, and the samples were delivered to Spectrum. Ground water sample B-5B was analyzed for VPH and EPH, while ground water sample B-8 was analyzed for VPH and VOCs due to its location in close proximity of, and downgradient to, the tank grave. The results of these analyses indicated trace levels of several contaminants in both wells, although the concentrations did not exceed their applicable MCP Method 1 risk based standards as indicated in the MCP (see Table 5 for a summary of the laboratory data contained in Appendix F).

Air (Soil Gas)

One soil/gas sample was obtained from beneath the basement floor slab in the vicinity of the 100-gallon UST gasoline release to assess potential impact to indoor air. The redevelopment plan includes maintaining the existing basement floor slab intact.

During the advancement of soil boring B-8 on May 30, 2001, TGGE collected a grab soil gas sample with a Summa canister from within the top five feet of the soil boring. In accordance with the Field Sampling and Analysis Technologies Matrix and Reference Guide dated March 1998, prepared by the Naval Facilities Engineering Command and the U.S. Environmental Protection Agency, the sample was collected by driving a five foot screened hollow probe into the soil, inserting the Summa canister tubing to the bottom of the probe and sealing the top of the probe to restrict ambient air from entering the sampling area. The soil gas contained in the interstitial spaces of the soil was pulled through the probe by the Summa canister via soil gas equilibration with the evacuated Summa canister. The sample was delivered to ENSR Air Toxics Specialty Laboratory, located in Harvard, Massachusetts for air phase petroleum hydrocarbon (APH) analysis, which is based on EPA Method TO-14.

The results of the analysis indicated the presence of several compounds including 1,3-butadiene (140 ug/m^3), benzene (170 ug/m^3), toluene (84 ug/m^3) and C_5-C_8 aliphatics (1,700 ug/m^3). See Table 6 which summarizes this laboratory data contained in Appendix G.

In addition, the laboratory reported that tetrachloroethene (TCE) was detected in the sample but was not quantified by the laboratory. This compound is not believed to be associated with the UST release. Based on the laboratory results, TCE has not been reported to be present in soil and ground water at the subject property. Further assessment of TCE is planned at the subject site.

d. Succinct statement of findings and conclusions of IRA Plan

An Immediate Response Action was required to contain and remove a 100-gallon gasoline UST that is the source of a gasoline release that was discovered on March 15, 2001.

Gasoline contaminated soil was excavated from the tank grave, and recycled at an in-state asphalt batch plant. Access to soil contamination was restricted due to vertical clearance restrictions and a concrete floor slab around the tank grave.

During further investigation of the nature and extent of contamination resulting from a leaking 100-gallon UST, horizontal limits of soil contamination were assessed to be at the limits of the tank grave. The vertical limit of soil contamination was assessed at the limit of accessibility to contaminated soil by a backhoe. Ground water did not appear to be impacted by the release, based on assessment of ground water monitoring wells that were positioned immediately and further downgradient of the tank grave.

Based on the results of the Imminent Hazard Evaluation conducted for this site, an Imminent Hazard does not appear to exist.

e. Details and documentation of remediation waste as part of IRA

Tank Removal

TGGE contacted Fleet Environmental Services LLC and arranged for a vacuum truck to arrive on-site to vacuum any remaining product from the tank. Fleet vacuumed the remaining contents, approximately one-half inch of old gasoline product. The tank was subsequently cleaned, rinsing it with water twice and vacuuming the tank contents. Approximately 25 gallons of product-water mixture was vacuumed from the tank, and disposed of under a Hazardous Waste Manifest (see Appendix H for a copy of the Hazardous Waste Manifest).

On March 19, 2001 TGGE met Fleet representatives and Inspector Mark Jefferson of the Brookline Fire Prevention Office at the site, prior to removal of the 100-gallon UST. The tank was lifted from the tank grave and transported to Grant's Tank Yard in Readville, Massachusetts. Numerous areas of pitting and rust, and several small holes, were observed on the tank. See Appendix I for Application and Permit for storage tank removal, and a disposal receipt.

Soil Excavation

IRA activities to date also include the excavation of approximately 8 cubic yards of soil from the tank grave on March 20, 2001. The excavated soil was initially stockpiled on a concrete slab adjacent to the excavation and was subsequently removed from the site for asphalt batch recycling along with the contaminated soil removed as part of the Release Abatement Measure (RAM) Plan for RTN 3-20631, also located at the subject property.

The limited height clearance that exists in the basement (basement slab to ceiling clearance is approximately 11.5 feet), in addition to building foundations and concrete support structures, reduced the ability to excavate in the vicinity of the former tank and gasoline release.

A list of federal, state or local permits that were needed to conduct the Immediate Response Action is:

- Immediate Response Action (IRA) Plan (verbal DEP approval on 3/01/01)
- Dig-Safe number (20010802442)
- Fire Department Permit for tank removal (copy included)
- Hazardous Waste Manifest for transportation and disposal of gasoline and water from the UST (copy included)
- Bill of Lading for soil transportation and disposal (copy included)

f. Ongoing activities related to IRA that will be conducted including monitoring, maintenance

TGGE is currently gathering additional assessment data for the gasoline disposal site that is located within the footprint of an existing building, in the former basement that has recently been redeveloped into a belowground parking garage area. Additional sampling of soil borings, ground water from existing and new monitoring wells that are planned for installation, and air samples will be collected, screened and analyzed to supplement the data that has already been obtained for the site. TCE concentrations will be quantified in selected samples that are collected.

Based on the results of the proposed work, TGGE plans to submit either a Tier Classification or a Response Action Outcome (RAO) within the next six months for the release identified as RTN 3-20504.

Please feel free to contact TGGE with any questions or comments regarding the information contained herein.

Very truly yours,

TGG ENVIRONMENTAL, INC.

Carl Shapiro
Vice President, LSP

Stephanie P. Orlow
Environmental Scientist

SPO/cs/cg

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-105

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number: 3 - 20504

A. RELEASE OR THREAT OF RELEASE LOCATION:

Release Name: (optional) _____

Street: 1010 Commonwealth Avenue Location Aid: Babcock Street

City/Town: Brookline ZIP Code: 02215

☐ Check here if a Tier Classification Submittal has been provided to DEP for this Release Tracking Number.

☐ Check here if this location is Adequately Regulated, pursuant to 310 CMR 40.0040114.

Specify Program ☐ CERCLA ☐ HSWA Corrective Action ☐ Solid Waste Management ☐ RCRA State Program (21C Facilities)

Related Release Tracking Numbers That This IRA Addresses: _____

B. THIS FORM IS BEING USED TO: (check all that apply)

☐ Submit an **IRA Plan** (complete Sections A, B, C, D, E, H, I, J and K).

☐ Check here if this IRA Plan is an update or modification of a previously approved written IRA Plan. Date Submitted: _____

☐ Submit an **Imminent Hazard Evaluation** (complete Sections A, B, C, F, H, I, J and K).

☐ Submit an **IRA Status Report** (complete Sections A, B, C, E, H, I, J and K).

☐ Submit a **Request to Terminate an Active Remedial System and/or Terminate a Continuing Response Action(s) Taken to Address an Imminent Hazard** (complete Sections A, B, C, D, E, H, I, J and K).

☑ Submit an **IRA Completion Statement** (complete Sections A, B, C, D, E, G, H, I, J and K).

You must attach all supporting documentation required for each use of form indicated, including copies of any Legal Notices and Notices to Public Officials required by 310 CMR 40.1400.

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT IRA

Identify Media and Receptors Affected: (check all that apply) ☐ Air ☐ Groundwater ☐ Surface Water ☐ Sediments ☑ Soil

☐ Wetland ☐ Storm Drain ☐ Paved Surface ☐ Private Well ☐ Public Water Supply ☐ Zone 2 ☐ Residence

☐ School ☐ Unknown ☐ Other Specify: _____

Identify Conditions That Require IRA, Pursuant to 310 CMR 40.0412: (check all that apply) ☐ 2 Hour Reporting Condition(s)

☑ 72 Hour Reporting Condition(s) ☐ Substantial Release Migration ☐ Other Condition(s)

Describe: Historical gasoline releases from UST to soil.

Identify Oils and Hazardous Materials Released: (check all that apply) ☑ Oils ☐ Chlorinated Solvents ☐ Heavy Metals

☐ Others Specify: _____

D. DESCRIPTION OF RESPONSE ACTIONS (check all that apply)

☐ Assessment and/or Monitoring Only

☑ Excavation of Contaminated Soils

☑ Re-use, Recycling or Treatment

○ On Site ● Off Site Est. Vol.: 8 cubic yards

Describe: Asphalt Batch

☐ Store ○ On Site ○ Off Site Est. Vol.: _____ cubic yards

☐ Landfill ○ Cover ○ Disposal Est. Vol.: _____ cubic yards

☐ Removal of Drums, Tanks or Containers

Describe: _____

☐ Deployment of Absorbent or Containment Materials

☐ Temporary Covers or Caps

☐ Bioremediation

☐ Soil Vapor Extraction

☐ Structure Venting System

☐ Product or NAPL Recovery

☐ Groundwater Treatment Systems

☐ Air Sparging

☐ Temporary Water Supplies

RECEIVED
NOV - 5 2001
DEP
NORTHEAST REGIONAL OFFICE

SECTION D IS CONTINUED ON THE NEXT PAGE

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D

D. DESCRIPTION OF RESPONSE ACTIONS (continued)

☐ Removal of Other Contaminated Media ☐ Temporary Evacuation or Relocation of Residents

Specify Type and Volume _____ ☐ Fencing and Sign Posting

☐ Other Response Actions Describe: _____

☐ Check here if this IRA involves the use of Innovative Technologies (DEP is interested in using this information to aid in creating an Innovative Technologies Clearinghouse).

Describe Technologies: _____

E. TRANSPORT OF REMEDIATION WASTE: (if Remediation Waste has been sent to an off-site facility, answer the follong questions)

Name of Facility: Aggregate Industries

Town and State: Stoughton, MA

Quantity of Remediation Waste Transported to Dat 8 Cubic Yards

F. IMMINENT HAZARD EVALUATION SUMMARY: (check one of the following

☐ Based upon an evaluation, an Imminent Hazard exists in connection with this Release or Threat of Release.

☑ Based upon an evaluation, an Imminent Hazard does not exist in connection with this Release or Threat of Release.

☐ Based upon an evaluation, it is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release, and further assessment activities will be undertaken.

☐ Based upon an evaluation, it is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release. However, response actions will address those conditions that could pose an Imminent Hazard.

G. IRA COMPLETION STATEMENT:

☐ Check here if future response actions addressing this Release or Threat of Release will be conducted as part of the Response Actions planned for a Site that has already been Tier Classified under a different Release Tracking Number, or a Site that is identified on the Transition List as described in 310 CMR 40.0600 (i. e., a Transition Site, which includes Sites with approved Waivers). These additional response actions must occur according to the deadlines applicable to the earlier Release Tracking Number (i. e., Site ID Number).

State Release Tracking Number (i. e., Site ID Number) of Tier Classified Site or Transition Site: _____

If any Remediation Waste will be stored, treated, managed, recycled or reused at the site following submission of the IRA Completion Statement, you must submit either a Release Abatement Measure (RAM) Plan or a Phase IV Remedy Implementation Plan, along with the appropriate transmittal form, as an attachment to the IRA Completion Statement

H. LSP OPINION:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief,

> *if Section B of this form indicates that an **Immediate Response Action Plan** is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B of this form indicates that an **Imminent Hazard Evaluation** is being submitted*, this Imminent Hazard Evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and the assessment activity(ies) undertaken to support this Imminent Hazard Evaluation complies(y) with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000;

> *if Section B of this form indicates that an **Immediate Response Status Report** is being submitted*, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B of this form indicates that an **Immediate Response Action Completion Statement** or a **Request to Terminate an Active Remedial System and/or Terminate a Continuing Response Action(s) Taken to Address an Imminent Hazard** is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal.

SECTION H IS CONTINUED ON THE NEXT PAGE.

Massachusetts Department of Environmental Protection — **BWSC-105**

Bureau of Waste Site Cleanup

Release Tracking Number: 3 - 20504

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

H. LSP Opinion (continued):

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

☐ Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

LSP Name: Carl Shapiro LSP #: 4018 Stamp:

Telephone 781-707-5182 Ext.:

FAX: (optional) 781-449-1283

Signature: Carl Shapiro

Date: 10/23/01

I. PERSON UNDERTAKING IRA:

Name of Organization 1010 Commonwealth LLC c/o ZVI Construction Company, Inc.

Name of Contact: Mr. Leo Couture Title:

Street: 930 Commonwealth Avenue South

City/Town: Brookline State: MA ZIP Code: 02215

Telephone 617-731-5599 Ext.: FAX: (optional)

☐ Check here if there has been a change in the person undertaking the IRA.

J. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING IRA: (check one)

☑ RP or PRP Specify: ○ Owner ● Operator ○ Generator ○ Transporter Other RP or PRP:

☐ Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G. c. 21E, s. 2)

☐ Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ Any Other Person Undertaking IRA Specify Relationship:

K. CERTIFICATION OF PERSON UNDERTAKING IRA

I, Leo Couture, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate or incomplete information.

By: Title:
(signature)

For: Leo Couture Date: 10/23/01
(print name of person or entity recorded in Section I)

Enter address of the person providing certification, if different from address recorded in Section I:

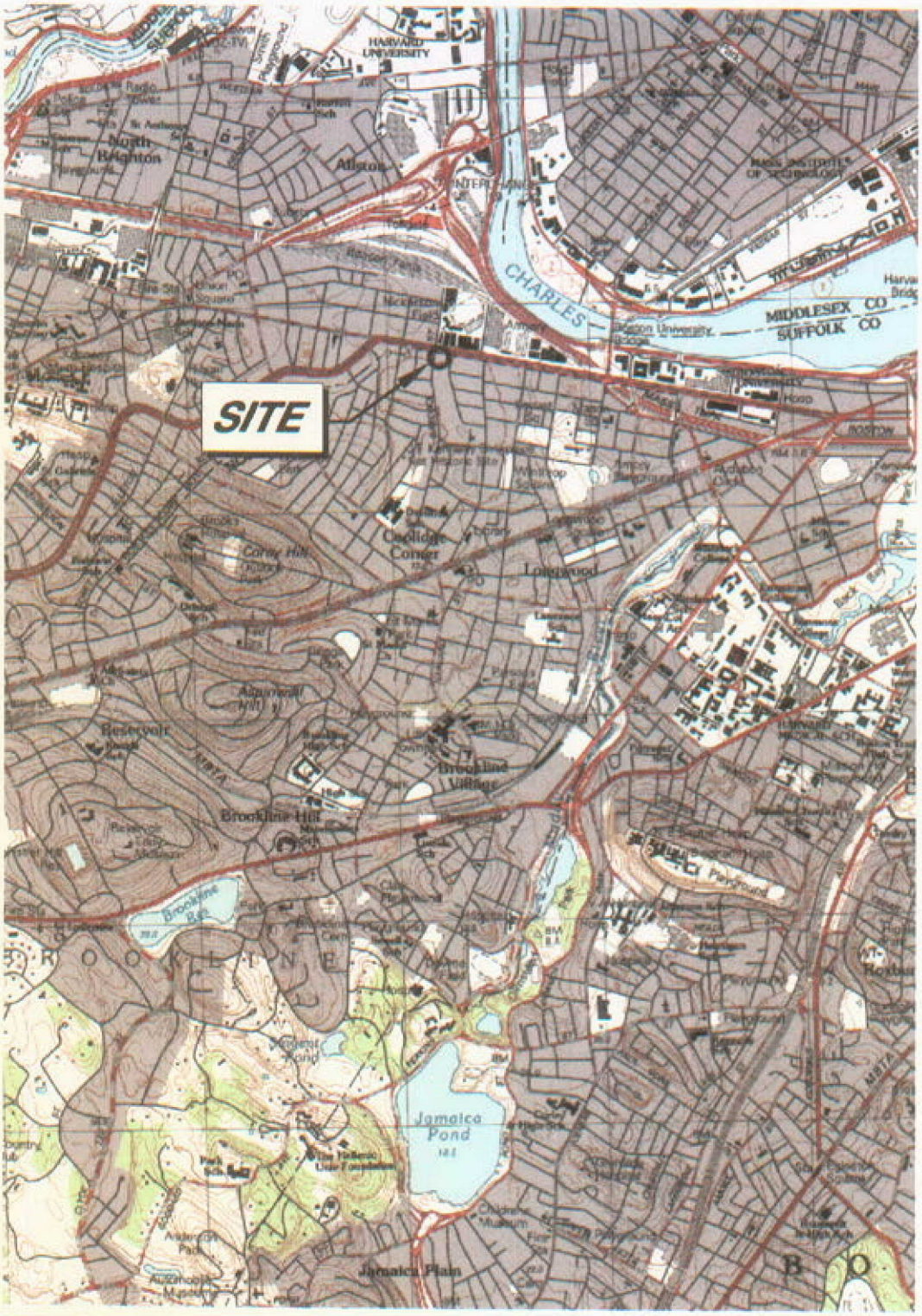
Street:

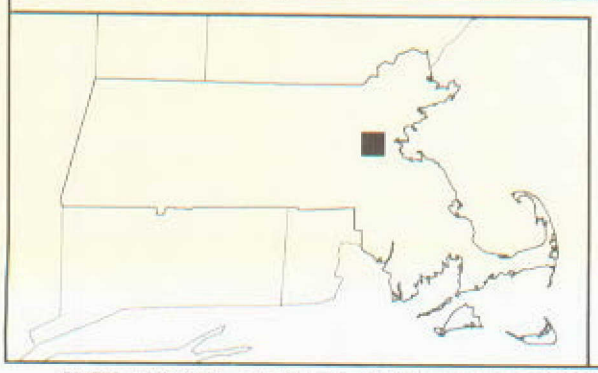
City/Town: State: ZIP Code:

Telephone Ext.: FAX: (optional)

YOU MUST COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE

FIGURES







REV No.	DATE	INT	- DESCRIPTION -

DRAWN BY JJP | REVIEWED BY SPO

DATE: 11/1/01 | JOB No HC3128.3

1010 COMMONWEALTH AVENUE BROOKLINE, MASSACHUSETTS

LOCUS PLAN

SOURCE

1967 USGS SOUTH BOSTON, MA QUADRANGLE MAP

(NOT TO SCALE)

TGG

FIGURE No. 1

JPOWERS, 11/01/2001, 11:05:12 | FILE \\PECK\3.0 PROJECT RECORDS\3.5 TGGE PROJECTS\3.5.1 TGGE PROJECT FOLDERS\3100-3199\3128\3128.03\PLANS\FIGURES\3128.03F03.DWG

COMMONWEALTH AVENUE

N

SEE DETAIL A

UST-9 TANK GRAVE (FORMER 500 GALLON NO. 2 FUEL OIL)

CONTAMINATED SOIL EXCAVATED BY CDM IN 1997

FORMER LOCATION OF GAS PUMPS

B-4/2000

B-5/2000

LOCATION OF OF FORMER AST NO. 2 (275 GALLON NO. 2 FUEL OIL ABOVE GROUND STORAGE TANK)

LOCATION OF FORMER AST NO. 1 (275 GALLON NO. 2 FUEL OIL ABOVE GROUND STORAGE TANK)

UST-3 AND UST-4 TANK GRAVE (TWO FORMER 5,000 GALLON GASOLINE)

B-1 (mw)

B-7

B-6

UST-5 AND UST-6 TANK GRAVE (TWO FORMER 4,000 GALLON GASOLINE)

FORMER NORTH PARKING

FORMER GARAGE REPAIR BUILDING

B-2 (mw)

ENTERPRISE RENT-A-CAR

B-3 (mw)

APPROXIMATE LOCATION OF FORMER 1000-GALLON UST

B-6/2000

UST-7 TANK GRAVE (FORMER 750 GALLON WASTE OIL)

B-5B (mw)

B-4

LOCATION OF THE FORMER 500 GALLON OIL/ WATER SEPARATOR)

UST-6 TANK GRAVE (FORMER 750 GALLON WASTE OIL)

FORMER TEMPORARY BUILDING

FORMER BUILDING

EXISTING CONCRETE

EXISTING BUILDING

1010 COMMONWEALTH AVENUE

BABCOCK STREET

B-8 (mw)

APPROXIMATE LOCATION OF FORMER 4000-GALLON HEATING OIL AST

GT-WWL

GT-NWL

STKPL-1/S-2

OWSEP-1

OWSEP-2

OWSEP-3

STKPL-1/S-1

GT-EWL

GT-SWL

APPROXIMATE LOCATION OF NEW OIL/WATER SEPARATOR

B2/2000

B1/2000

APPROXIMATE LOCATION OF FORMER 100-GALLON GASOLINE UST

FORMER SOUTH PARKING

NEW ENTRANCE RAMP TO BASEMENT

B3/2000

B7/2000

NOTES:

1. BASE MAP DEVELOPED FROM PLAN PROVIDED BY BEACON ARCHITECTURE ASSOCIATES ENTITLED "SITE PLAN," DATED 9/28/00, ORIGINAL SCALE 1"=20', DRAWING NO. A-001.
2. OBJECTS ON THIS PLAN WERE LOCATED BY TAPE MEASUREMENTS AND PACING FROM EXISTING LANDMARKS AND ARE APPROXIMATE.
3. THE FORMER NORTH PARKING AREA WAS EXCAVATED TO A DEPTH OF APPROXIMATELY -16.5 FEET BETWEEN JANUARY 2001 AND APRIL 2001 WHERE TGGE ADVANCED SOIL BORINGS B-1 THROUGH B-7 AND TEST PITS TP-1 AND TP-2. IN ADDITION TGGE OBTAINED SEVERAL SOIL SAMPLES FROM THIS DEPTH AS INDICATED IN DETAIL A.

LEGEND:

- MONITORING WELL INSTALLED BY SOIL EXPLORATION INC., ON 2/27/01. OBSERVED AND LOGGED BY TGGE.
- APPROXIMATE LOCATION OF SOIL BORINGS ADVANCED ON 4/13/01. OBSERVED AND LOGGED BY TGGE.
- APPROXIMATE LOCATION OF SOIL BORINGS ADVANCED ON 3/10/00 AND 3/13/00. OBSERVED AND LOGGED BY TGGE.
- MONITORING WELL INSTALLED BY SOIL EXPLORATION CORP. ON 5/30/01. OBSERVED AND LOGGED BY TGGE.
- TEST PITS CONDUCTED BY CARUSO CORPORATION ON 2/21/01. OBSERVED AND LOGGED BY TGGE.
- SOIL SAMPLES COLLECTED BY TGGE ON 2/15/01.
- SOIL SAMPLES COLLECTED BY TGGE ON 3/21/01.
- APPROXIMATE LOCATION OF SOIL SAMPLES COLLECTED BY TGGE ON 4/6/01.
- APPROXIMATE LOCATION OF STOCKPILED SOIL EXCAVATED FROM FORMER 100-GALLON UST GRAVE ON 3/20/01.

APPROXIMATE AREA OF CONTAMINATED SOIL EXCAVATED AND TRANSPORTED OFF-SITE TO LICENSED RECYCLING FACILITY IN 2001.

UST-9

EX-BOT-2

B-5/2000

EX-1

TP-1

SS-2

B-6

SS-1

EX-BOT 1

FORMER GARAGE REPAIR BUILDING

B-2 (mw)

SS-3

EX-2

TP-2

B-4

EX-BOT 3

DETAIL A

SCALE: 1"=10'

REV No.	DATE	INT.	- DESCRIPTION -

DRAWN BY: JJP

REVIEWED BY: SPO

DATE: 11/1/01

SCALE: 1"=20'

JOB No. HG3128.3

1010 COMMONWEALTH AVENUE BROOKLINE, MASSACHUSETTS

EXPLORATION LOCATION PLAN

TGG

FIGURE No. 2

TABLES

1010 Commonwealth Avenue
File No. HC3128.03
Matrix: Soil

Table 1

Parameter	GT-NWL	GT-SWL	GT-EWL	GT-WWL	MCP Standards	MCP Method 1	UCL Standards
Date Collected	**3/20/01**	**3/30/01**	**3/20/01**	**3/20/01**	**RCS-1**	**S-3/GW-3**	
Approximate Elevation (Feet)*	**2.0**	**2.5**	**2.5**	**2.0**			
VPH Aliphatics/Aromatics (ppm)							
C5-C8 Aliphtic Hydrocarbons	BDL	1.3	BDL	BDL	100	500	5,000
C9-C12 Aliphatic Hydrocarbons	BDL	BDL	BDL	BDL	1,000	5,000	20,000
C9-C10 Aromatic Hydrocarbons	BDL	BDL	BDL	BDL	100	500	5,000
VPH Target Analytes (ppb)							
Benzene	BDL	BDL	BDL	BDL	10,000	200,000	2,000,000
Toluene	BDL	190	BDL	BDL	90,000	2,500,000	10,000,000
Ethylbenzene	BDL	BDL	BDL	BDL	80,000	500,000	10,000,000
m,p-Xylenes	BDL	BDL	BDL	BDL	500,000	2,500,000	10,000,000
o-Xylene	BDL	BDL	BDL	BDL	500,000	2,500,000	10,000,000
Naphthalene	BDL	BDL	BDL	BDL	4,000	1,000,000	10,000,000
Methyl-tert-butyl ether (MTBE)	BDL	BDL	BDL	BDL	300	200,000	5,000,000

Notes

1. BDL = Not Detected Above Laboratory Method Detection Limit.
2. * Indicates Approximate Depth (In Feet) From Existing Basement Floor Slab Elevation

1010 Commonwealth Ave
File No. HC3128.03
Matrix: Soil

Table 2

Parameter	STKPL-1/S-1	STKPL-1/S-2	MCP Standards	MCP Method 1	UCL Standards
Date Collected	**4/6/01**	**4/6/01**	**RCS-1**	**S-3/GW-3**	
VPH Aliphatics/Aromatics (ppm)					
C5-C8 Aliphatic Hydrocarbons	**272**	**140**	100	500	5,000
C9-C12 Aliphatic Hydrocarbons	387	375	1,000	5,000	20,000
C9-C10 Aromatic Hydrocarbons	**962**	**759**	100	500	5,000
VPH Target Analytes (ppb)					
Benzene	1700	BDL	10,000	200,000	2,000,000
Toluene	**254300**	**156900**	90,000	2,500,000	10,000,000
Ethylbenzene	**86100**	55600	80,000	500,000	10,000,000
m,p-Xylene	360300	237900	500,000	2,500,000	10,000,000
o-Xylene	136600	93200	500,000	2,500,000	10,000,000
Naphthalene	**22400**	**18200**	4,000	1,000,000	10,000,000
Methyl-tert-butyl ether (MTBE)	BDL	BDL	300	200,000	5,000,000

Notes:

1. BDL = Not Detected Above Laboratory Method Detection Limits

1010 Commonwealth Avenue
File No. HC3128.03
Matrix: Soil

Table 3

Parameter	B-8/S-4	RCS-1	MCP Method 1	UCL Standards
Date Collected	**5/30/01**		**S-3/GW-3**	
Approximate Elevation (Feet)*	**20-22**			
VPH Aliphatics/Aromatics (mg/Kg)				
C5-C8 Aliphatic Hydrocarbons	BDL	100	500	5,000
C9-C12 Aliphatic Hydrocarbons	BDL	1,000	5,000	20,000
C9-C10 Aromatic Hydrocarbons	1.4	100	500	5,000
VPH Target Analytes (ug/Kg)				
Benzene	BDL	10,000	200,000	2,000,000
Toluene	BDL	90,000	2,500,000	10,000,000
Ethylbenzene	BDL	80,000	500,000	10,000,000
m,p-Xylenes	BDL	500,000	2,500,000	10,000,000
o-Xylene	BDL	500,000	2,500,000	10,000,000
Naphthalene	130	4,000	1,000,000	10,000,000
Methyl-tert-butyl ether (MTBE)	BDL	300	200,000	5,000,000

Notes:

1) * Indicates Approximate Depth (In Feet) From Existing Basement Floor Slab Elevation.
2) BDL = Not Detected Above Laboratory Method Detection Limit.

1010 Commonwealth Avenue
File No. HC3128.03
Matrix: Soil

Table 4

Parameter	OWSEP-1	OWSEP-3	MCP Standards	MCP Method 1	UCL Standards
Date Collected	**3/15/01**	**3/21/01**	**RCS-1**	**S-3/GW-3**	
Approximate Elevation (Feet)*	**2.0**	**7.0**			
VPH Aliphatics/Aromatics (ppm)					
C5-C8 Aliphtic Hydrocarbons	1.3	BDL	100	500	5,000
C9-C12 Aliphatic Hydrocarbons	1.7	BDL	1,000	5,000	20,000
C9-C10 Aromatic Hydrocarbons	3.2	BDL	100	500	5,000
VPH Target Analytes (ppb)					
Benzene	BDL	BDL	10,000	200,000	2,000,000
Toluene	BDL	BDL	90,000	2,500,000	10,000,000
Ethylbenzene	BDL	BDL	80,000	500,000	10,000,000
m,p-Xylenes	BDL	BDL	500,000	2,500,000	10,000,000
o-Xylene	BDL	BDL	500,000	2,500,000	10,000,000
Naphthalene	180	BDL	4,000	1,000,000	10,000,000
Methyl-tert-butyl ether (MTBE)	BDL	BDL	300	200,000	5,000,000

Notes

1. BDL = Not Detected Above Laboratory Method Detection Limit.
2. * Indicates Approximate Depth (In Feet) From Existing Basement Floor Slab Elevation

1010 Commonwealth Avenue
File No. HC3128.03
Matrix: Ground Water

Table 5

Parameter	B-1 (MW)	B-2 (MW)	B-3 (MW)	B-5B	B-8	MCP Standards	
Date Collected	**3/1/01**	**3/1/01**	**3/1/01**	**7/2/01**	**7/2/01**	**RC GW-2**	**GW-3**
VPH Aliphatics/Aromatics (mg/L)							
C5-C8 Aliphatic Hydrocarbons	BDL	BDL	BDL	BDL	BDL	1	4
C9-C12 Aliphatic Hydrocarbons	BDL	0.57	BDL	BDL	BDL	1	20
C9-C10 Aromatic Hydrocarbons	BDL	0.43	BDL	BDL	BDL	4	4
VPH Target Analytes (ug/L)							
Benzene	BDL	BDL	BDL	BDL	BDL	2,000	7,000
Toluene	BDL	340	16	BDL	41	6,000	50,000
Ethylbenzene	BDL	120	5.5	BDL	BDL	4,000	4,000
m,p-Xylenes	BDL	440	20	BDL	30	6,000	50,000
o-Xylene	BDL	160	8.7	BDL	12	6,000	50,000
Naphthalene	BDL	15	BDL	BDL	BDL	6,000	6,000
Methyl-tert-butyl ether (MTBE)	BDL	BDL	BDL	BDL	BDL	50,000	50,000
EPH Aliphatics/Aromatics							
C9-C18 Aliphatic Hydrocarbons	BDL	BDL	BDL	BDL	NT	1	20
C19-C36 Aliphatic Hydrocarbons	BDL	BDL	BDL	BDL	NT	20	20
C11-C22 Aromatic Hydrocarbons	BDL	BDL	BDL	BDL	NT	30	30
EPH Target PAH Analytes							
EPH	BDL	BDL	BDL	BDL	NT	NA	NA
VOCs (ppb)							
Benzene	BDL	1.9	BDL	NT	4.9	2,000	7,000
n-Butylbenzene	BDL	12	1	NT	BDL	NA	NA
sec-Butylbenzene	BDL	2.8	BDL	NT	BDL	NA	NA
Chloroform	BDL	2.9	BDL	NT	BDL	400	10,000
Ethylbenzene	1.6	120	5.5	NT	4.1	4,000	4,000
Isopropylbenzene	BDL	10	BDL	NT	BDL	100,000	NA
4-Isopropyltoluene	BDL	1.5	BDL	NT	BDL	NA	NA
Naphthalene	BDL	15	1.3	NT	BDL	6,000	6,000
n-Propylbenzene	BDL	31	1.7	NT	BDL	NA	NA
Toluene	BDL	340	16	NT	41	6,000	50,000
1,2,4-Trimethylbenzene	2.9	160	7.9	NT	5.8	100,000	NA
1,3,5-Trimethylbenzene	1	50	2.9	NT	2.4	1,000	NA
m,p-Xylenes	6.4	440	20	NT	30	6,000	50,000
o-Xylene	BDL	160	8.7	NT	12	6,000	50,000

Notes:

1. BDL = Not detected below laboratory method detection limit.
2. NA = Not Available
3. NT = Not Tested

1010 Commonwealth Avenue
File No. HC3128.03
Matrix: Soil Gas

Table 6

Parameter	**B-8/GS-1**
Date Collected	**5/30/01**
APH (ug/m^3)	
1,3-Butadiene	140
Methyl t-butylether	BDL
Benzene	170
Toluene	84
Ethylbenzene	BDL
m&p-Xylenes	BDL
o-Xylene	BDL
Naphthalene	BDL
2-Methylnaphthalene	BDL
1-Methylnaphthalene	BDL
C5-C8 Aliphatics	1,700
C9-C12 Aliphatics	BDL
C9-C10 Aromatics	BDL

Notes:

1. BDL = Not Detected Above Laboratory Method Detection Limit.

APPENDIX A

BILL OF LADING

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012A

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number*: 3 - 20631

A. LOCATION OF SITE OR DISPOSAL SITE WHERE REMEDIATION WASTE WAS GENERATED:

Release Name (optional):

Street: 1010 Commonwealth Avenue Location Aid: Babcock Street

City/Town: Brookline ZIP Code: 02215

Date/Period of Generation: 2/14/01 to: 2/21/01

Additional Release Tracking Numbers Associated with this Bill of Lading:

** Note: If this Bill of Lading is the result of a Limited Removal Action (LRA) taken prior to Notification, a Release Tracking Number is not needed.*

B. PERSON CONDUCTING RESPONSE ACTION ASSOCIATED WITH BILL OF LADING:

Name of Organization: 1010 Commonwealth LLC c/o ZVI Construction Company, Inc.

Name of Contact: Mr. Leo Couture Title:

Street: 930 Commonwealth Avenue South

City/Town: Brookline State: MA ZIP Code: 02215

Telephone: 617-731-5599 Ext.:

C. RELATIONSHIP TO RELEASE OF PERSON CONDUCTING RESPONSE ACTION ASSOCIATED WITH BILL OF LADING:

☑ RP or PRP Specify: ☐ Owner ☑ Operator ☐ Generator ☐ Transporter Other RP or PRP:

☐ Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G .L. c. 21E, s. 2)

☐ Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ Other Person:

If an owner and/or operator is not conducting the response action associated wi th the Bill of Lading, provide on an attachment the name, contact person, address and telephone number, including any area code and exten sion, for each, if known.

D. TRANSPORTER OR COMMON CARRIER INFORMATION:

Transporter/Common Carrier Name: Caruso Corporation

Contact Person: Mr. Dick Russo Title: Project Manager

Street: 320 C Charger Street

City/Town: Revere State: MA ZIP Code: 2151

Telephone: 781-289-2900 Ext.:

RECEIVED
NOV - 5 2001
DEP
NORTHEAST REGIONAL OFFICE

E. RECEIVING FACILITY/TEMPORARY STORAGE LOCATION:

Operator/Facility Name: Aggregate Industries

Contact Person: Mr. William Reinhart Title: Senior Sales Engineer

Street: 1101 Turnpike Street

City/Town: Stoughton State: MA ZIP Code: 02072

Telephone: 781-341-5500 Ext.:

Type of Facility (check one):
☑ Asphalt Batch/Cold Mix ☐ Landfill/Disposal ☐ Incinerator ☐ Temporary Storage
☑ Asphalt Batch/Hot Mix ☐ Landfill/Daily Cover ☐ Other:
☐ Thermal Processing ☐ Landfill/Structural Fill

EPA Identification #:

Division of Hazardous Waste/Class A Permit #: S-00-055 Division of Solid Waste Management Permit #: MAD981213531

Actual/Anticipated Period of Temporary Storage (specify dates if applicable): to:

Reason for Temporary Storage:

Massachusetts Department of Environmental Protection — **BWSC-012A**

Bureau of Waste Site Cleanup

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number*: 3 - 20631

E. RECEIVING FACILITY/TEMPORARY STORAGE LOCATION (continued) :

Temporary Storage Address:

Street: _____

City/Town: _____ State: _____ ZIP Code: _____

F. DESCRIPTION OF REMEDIATION WASTE:

(check all that apply)

- [x] Contaminated Media (check all that apply): (●) Soil ( ) Groundwater ( ) Surface Water ( ) Other: _____
- [ ] Contaminated Debris (check all that apply): ( ) Vegetation or Organic Debris ( ) Demolition/Construction Waste ( ) Inorganic Absorbant Materials ( ) Other: _____
- [ ] Non-hazardous Uncontainerized Waste (check all that apply): ( ) Non-aqueous Phase Liquid ( ) Other: _____
- [ ] Non-hazardous Containerized Waste (check all that apply): ( ) Tank Bottoms/Sludges ( ) Containers ( ) Drums ( ) Engineered Impoundments ( ) Other: _____

Type of Contamination (check all that apply): [x] Gasoline [x] Diesel Fuel [ ] #2 Oil [ ] #4 Oil [ ] #6 Oil [ ] Waste Oil [ ] Kerosene [ ] Jet Fuel [ ] Other: _____

Estimated Volume of Materials: Cubic Yards: 140 Tons: _____ Other: _____

Contaminant Source (check one/specify): [ ] Transportation Accident [x] Underground Storage Tank [ ] Other: _____

Response Action Associated with Bill of Lading (check one): [ ] Immediate Response Action [x] Release Abatement Measure [ ] Utility-Related Abatement Measure [ ] Limited Removal Action (LRA) [ ] Comprehensive Response Action

Remediation Waste Charcterization Support Documentation attached:

[x] Site History Information [ ] Sampling and Analytical Methods and Procedures [x] Laboratory Data [ ] Field Screening Data

If supporting documentation is not appended, provide an attachment stating the date and in connection with what document such information was previously submitted to DEP.

G. LICENSED SITE PROFESSIONAL (LSP) OPINION:

Name of Organization: TGG Environmental, Inc.

LSP Name: Carl Shapiro Title: Vice President

Telephone: 781-707-5182 Ext.: _____

I attest under the pains and penalties of perjury that I have personally examin ed and am familiar with this submittal, including any and all documents accompanying this submittal. In my professional opinion and judgment based upo n application of

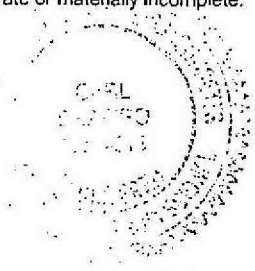
(i) the standard of care in 309 CMR 4.02(1),
(ii) the applicable provisions of 309 CMR 4.02(2) and (3), and
(iii) the provisions of 309 CMR 4.03(5),

to the best of my knowledge, information and belief, the assessment actions und ertaken to characterize the Remediation Waste which is (are) the subject of this submittal for acceptance at the facility identified in this submittal comp ly with the applicable provisions of 310 CMR 40.0000, and such facility is permitted to accept Remediation Waste having the characteristics described in t his submittal. I am aware that significant penalties may result, including, bu t not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

LSP Signature: Carl Shapiro Seal:

Date: 7/26/01

License Number: 4018



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012A

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number*
3 - 20631

H. CERTIFICATION OF PERSON CONDUCTING RESPONSE ACTION ASSOCIATED WITH THIS BILL OF LADING:

I certify under penalties of law that I have personally examined and am familia r with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of tho se individuals immediately responsible for obtaining the information, the material information contained herein is, to the best of my knowledge and belie f, true, accurate and complete. I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

Signature: _____ Date: 5/14/01

Name of Person (print): LEO COUTURE

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: ☐ - ☐

I. LOAD INFORMATION:

	Signature of Transporter Representative	Date of Shipment	Time of Shipment	Truck/Tractor Registration	Trailer Registration (if any)	Receiving Facility/Temporary Storage Representative	Date of Receipt	Time of Receipt	Load Size (cu. yds./tons)
Load 1:	Dan Wardwell	4-27-01	8:30 ☑ AM ☐ PM	S6 MA.	N/A	J. Fulton 3456740	4/27/01	9:21 ☑ AM ☐ PM	~~22.50~~ 23.77
Load 2:	Dan Wardwell	4-27-01	10:35 ☑ AM ☐ PM	S6, MA.	N/A	J. Fulton	4/27/01	11:30 ☐ AM ☐ PM	22.55
Load 3:	Dan Wardwell	4-27-01	1:00 ☐ AM ☑ PM	S6, MA.	N/A	J. Fulton	4/27/01	2:10 ☐ AM ☑ PM	20.71
Load 4:			☐ AM ☐ PM					☐ AM ☐ PM	
Load 5:			☐ AM ☐ PM					☐ AM ☐ PM	
Load 6:			☐ AM ☐ PM					☐ AM ☐ PM	

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

Page 1 of 1

Caruso

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ OF _____

Release Tracking Number ☐ - ☐

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative:
Date of Shipment: 4-27-01
Time of Shipment: 9:45 ☑ AM ☐ PM
Truck/Tractor Registration: 54
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/27/01
Time of Receipt: 11:11 ☐ AM ☐ PM
Load Size (cu. yds./tons): 22.59

Load 2:
Signature of Transporter Representative:
Date of Shipment: 4-27-01
Time of Shipment: 12:45 ☐ AM ☑ PM
Truck/Tractor Registration: 54
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/27/01
Time of Receipt: 1:57 ☐ AM ☑ PM
Load Size (cu. yds./tons): 22.82

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J: LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

PAGE. 5 6174491283 APR. 26. 01 (FRI) 16:16 TOC

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ OF _____

Release Tracking Number

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative:
Date of Shipment: 4/27/01
Time of Shipment: 8:30 ☑ AM ☐ PM
Truck/Tractor Registration: 901
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative: 3456687
Date of Receipt: 4/27/01
Time of Receipt: 9 25 ☑ AM ☐ PM
Load Size (cu. yds./tons): 23.16

Load 2:
Signature of Transporter Representative:
Date of Shipment: 4/27/01
Time of Shipment: 1100 ☑ AM ☐ PM
Truck/Tractor Registration: 901
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/27/01
Time of Receipt: 12:00 ☐ AM ☑ PM
Load Size (cu. yds./tons): 21.50

Load 3:
Signature of Transporter Representative:
Date of Shipment: 4/27/01
Time of Shipment: 130 ☐ AM ☑ PM
Truck/Tractor Registration: 901
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/27/01
Time of Receipt: 2:38 ☐ AM ☑ PM
Load Size (cu. yds./tons): 20.78

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

Caruso 21

APR. 26. 01 (FRI) 16:18 TCC 6174491263 PAGE. 5

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ OF _____

Release Tracking Number: ☐ - ☐

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative:
Date of Shipment: 4/30/01
Time of Shipment: 830 ☑ AM ☐ PM
Truck/Tractor Registration: 54
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4-30-01
Time of Receipt: 9:43 ☑ AM ☐ PM
Load Size (cu. yds./tons): 3456982 - 24.69

Load 2:
Signature of Transporter Representative:
Date of Shipment: 4/30/01
Time of Shipment: 1030 ☑ AM ☐ PM
Truck/Tractor Registration: 54
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4-30-01
Time of Receipt: 11:24 ☑ AM ☐ PM
Load Size (cu. yds./tons): 3457015 - 23.52

Load 3:
Signature of Transporter Representative:
Date of Shipment: 4/30/01
Time of Shipment: 1230 ☐ AM ☑ PM
Truck/Tractor Registration: 54
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4-30-01
Time of Receipt: 1:30 ☐ AM ☑ PM
Load Size (cu. yds./tons): 3457073 - 25.30

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Clean Cap 30

Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

G - 75620
T -
N -

MAR. 21 . 01 (THU) 11:20 TOC 6174491283 PAGE. 4

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012C

BILL OF LADING (pursuant to 310 CMR 40.0030)
SUMMARY SHEET 1 OF 1

Release Tracking Number: 3-20631

K. SUMMARY OF SHIPMENTS:

DATE OF SHIPMENT:	DATE OF RECEIPT:	NUMBER OF LOADS SHIPPED:	DAILY VOLUME SHIPPED (CU. YDS/TONS)
	4-27-01	8	177.88
	4-30-01	3	73.51
SUMMARY SHEET TOTAL SHIPPED:		11	251.39
BILL OF LADING TOTALSHIPPED (only if different):			

Revised 10/1/94

This form is printed on recycled paper.

Massachusetts Department of Environmental Protection **BWSC-012C**
Bureau of Waste Site Cleanup

BILL OF LADING (pursuant to 310 CMR 40.0030)
SUMMARY SHEET

Release Tracking Number: 3-20631

L. ACKNOWLEDGEMENT OF RECEIPT OF REMEDIATION WASTE AT RECEIVING FACILITY OR TEMPORARY STORAGE LOCATION:

Receiving Facility/Temporary Location Representative (print): William R. Reinhardt Title: Sr. Sales Engineer

Signature: William Reinhardt Date: 5/1/01

M. ACKNOWLEDGEMENT OF SHIPMENT AND RECEIPT OF REMEDIATION WASTE BY PERSON CONDUCTING RESPONSE ACTION ASSOCIATED WITH THIS BILL OF LADING:

I certify under penalties of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

Signature: [signature] Date: 5/14/01

Name of Person (print): LEO COUTURE

APPENDIX B

LABORATORY REPORT – 100 GALLON UST GRAVE SIDEWALL SOIL SAMPLES

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY
Massachusetts Certification # M-MA138
Rhode Island # 98 Maine # MA138
Florida # E87600 / 87562
New Hampshire # 2538
Connecticut # PH-0777
New York # 11393

ACCREDITED IN ACCORDANCE WITH nelac

TGG Environmental Inc.
100 Crescent Road
Needham, MA 02494

Attn: Carl Shapiro

Tuesday, March 27, 2001

Report Status:
☑ Final Report
☐ Re-issued Report
☐ Revised Report

Client Project Number: HC3128.0 **Location:** 1010 Commonwealth Ave-MA

Laboratory ID	Client Sample ID	Analyses Requested
AC36556	GT-NWL	VOC Extraction (solid) VPH Aliphatics/Aromatics VPH Target Analytes % Solids
AC36557	GT-SWL	VOC Extraction (solid) VPH Aliphatics/Aromatics VPH Target Analytes % Solids
AC36558	GT-EWL	VOC Extraction (solid) VPH Aliphatics/Aromatics VPH Target Analytes % Solids
AC36559	GT-WWL	VOC Extraction (solid) VPH Aliphatics/Aromatics VPH Target Analytes % Solids

11 Almgren Drive • Agawam, Massachusetts 01001 • 1-800-789-9115 • 413-789-9018 • Fax 413-789-4076
21 Tobey Road • Bl[illegible]

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Client Project Number: HC3128.0 **Location:** 1010 Commonwealth Ave-MA

Laboratory ID	Client Sample ID	Analyses Requested

I attest that all information contained within this report has been reviewed for accuracy and checked against all quality control requirements outlined in each applicable method and meet the requirements of NELAC including any data obtained from a subcontract laboratory. Please note that all solid matrix sample results are calculated on a dry weight basis unless otherwise specified.

This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Authorized by:

Hanibal C. Tayeh
President/Laboratory Director

11 Almgren Drive • Agawam, Massachusetts 01001 • 1-800-789-9115 • 413-789-9018 • Fax 413-789-4076
24 Toby Road • Bloomfield, Connecticut 06002 • 860-242-6201 • Fax 860-242-5012

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Location: 1010 Commonwealth Ave-MA
Client: TGG
Lab ID No: AC36556
Client Id: GT-NWL

Client Project No: HC3128.0
Submittal Date: 3/20/01
Collection Date: 3/20/01
Matrix: Soil

Parameter	Results	Units	PQL	Start Date	Analyst	Method
VOC Preparation						
VOC Extraction (solid)	Field ext			3/20/01		SW846 5035
Volatile Organic Compounds						
VPH Aliphatics/Aromatics						
C5-C8 Aliphatic Hydrocarbons	Below det lim	mg/Kg	0.945	3/26/01	RLJ	MA VPH 97-12
C9-C12 Aliphatic Hydrocarbons	Below det lim	mg/Kg	0.315	3/26/01	RLJ	MA VPH 97-12
C9-C10 Aromatic Hydrocarbons	Below det lim	mg/Kg	0.315	3/26/01	RLJ	MA VPH 97-12
Unadjusted C5-C8 Aliphatics	Below det lim	mg/Kg	0.945	3/26/01	RLJ	MA VPH 97-12
Unadjusted C9-C12 Aliphatics	Below det lim	mg/Kg	0.315	3/26/01	RLJ	MA VPH 97-12
Carbon Chain Dilution Factor	50	mg/Kg	0.	3/26/01	RLJ	MA VPH 97-12
VPH Target Analytes						
Benzene	Below det lim	ug/Kg	63	3/26/01	RLJ	MA VPH 97-12
Toluene	Below det lim	ug/Kg	63	3/26/01	RLJ	MA VPH 97-12
Ethylbenzene	Below det lim	ug/Kg	63	3/26/01	RLJ	MA VPH 97-12
m,p-Xylenes	Below det lim	ug/Kg	130	3/26/01	RLJ	MA VPH 97-12
o-Xylene	Below det lim	ug/Kg	63	3/26/01	RLJ	MA VPH 97-12
Naphthalene	Below det lim	ug/Kg	63	3/26/01	RLJ	MA VPH 97-12
Methyl-tert-butyl ether (MTBE)	Below det lim	ug/Kg	63	3/26/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) PID	106	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) FID	106	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) GCMS	NA	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
4-Bromofluorobenzene (%SR) GCMS	NA	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
Target Analytes Dilution Factor	50	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
% Solids	96.4	%		3/27/01	RLJ	SM2540 B Mod

Lab ID No: AC36557
Client Id: GT-SWL

Collection Date: 3/20/01
Matrix: Soil

Parameter	Results	Units	PQL	Start Date	Analyst	Method
VOC Preparation						
VOC Extraction (solid)	Field ext			3/20/01		SW846 5035
Volatile Organic Compounds						
VPH Aliphatics/Aromatics						
C5-C8 Aliphatic Hydrocarbons	1.3	mg/Kg	1.00	3/26/01	RLJ	MA VPH 97-12
C9-C12 Aliphatic Hydrocarbons	Below det lim	mg/Kg	0.335	3/26/01	RLJ	MA VPH 97-12
C9-C10 Aromatic Hydrocarbons	Below det lim	mg/Kg	0.335	3/26/01	RLJ	MA VPH 97-12
Unadjusted C5-C8 Aliphatics	1.5	mg/Kg	1.00	3/26/01	RLJ	MA VPH 97-12
Unadjusted C9-C12 Aliphatics	Below det lim	mg/Kg	0.335	3/26/01	RLJ	MA VPH 97-12
Carbon Chain Dilution Factor	50	mg/Kg	0.	3/26/01	RLJ	MA VPH 97-12
VPH Target Analytes						
Benzene	Below det lim	ug/Kg	67	3/26/01	RLJ	MA VPH 97-12
Toluene	190	ug/Kg	67	3/26/01	RLJ	MA VPH 97-12
Ethylbenzene	Below det lim	ug/Kg	67	3/26/01	RLJ	MA VPH 97-12
m,p-Xylenes	Below det lim	ug/Kg	130	3/26/01	RLJ	MA VPH 97-12
o-Xylene	Below det lim	ug/Kg	67	3/26/01	RLJ	MA VPH 97-12
Naphthalene	Below det lim	ug/Kg	67	3/26/01	RLJ	MA VPH 97-12
Methyl-tert-butyl ether (MTBE)	Below det lim	ug/Kg	67	3/26/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) PID	93	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) FID	97	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) GCMS	NA	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
4-Bromofluorobenzene (%SR) GCMS	NA	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
Target Analytes Dilution Factor	50	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
% Solids	95.2	%		3/27/01	RLJ	SM2540 B Mod

Lab ID No: AC36558
Client Id: GT-EWL

Collection Date: 3/20/01
Matrix: Soil

Parameter	Results	Units	PQL	Start Date	Analyst	Method
VOC Preparation						
VOC Extraction (solid)	Field ext			3/20/01		SW846 5035
Volatile Organic Compounds						
VPH Aliphatics/Aromatics						
C5-C8 Aliphatic Hydrocarbons	Below det lim	mg/Kg	1.25	3/26/01	RLJ	MA VPH 97-12
C9-C12 Aliphatic Hydrocarbons	Below det lim	mg/Kg	0.415	3/26/01	RLJ	MA VPH 97-12
C9-C10 Aromatic Hydrocarbons	Below det lim	mg/Kg	0.415	3/26/01	RLJ	MA VPH 97-12
Unadjusted C5-C8 Aliphatics	Below det lim	mg/Kg	1.25	3/26/01	RLJ	MA VPH 97-12
Unadjusted C9-C12 Aliphatics	Below det lim	mg/Kg	0.415	3/26/01	RLJ	MA VPH 97-12
Carbon Chain Dilution Factor	50	mg/Kg	0.	3/26/01	RLJ	MA VPH 97-12
VPH Target Analytes						
Benzene	Below det lim	ug/Kg	50	3/26/01	RLJ	MA VPH 97-12
Toluene	Below det lim	ug/Kg	50	3/26/01	RLJ	MA VPH 97-12
Ethylbenzene	Below det lim	ug/Kg	50	3/26/01	RLJ	MA VPH 97-12
m,p-Xylenes	Below det lim	ug/Kg	100	3/26/01	RLJ	MA VPH 97-12
o-Xylene	Below det lim	ug/Kg	50	3/26/01	RLJ	MA VPH 97-12
Naphthalene	Below det lim	ug/Kg	50	3/26/01	RLJ	MA VPH 97-12
Methyl-tert-butyl ether (MTBE)	Below det lim	ug/Kg	50	3/26/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) PID	103	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) FID	105	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) GCMS	NA	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
4-Bromofluorobenzene (%SR) GCMS	NA	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
Target Analytes Dilution Factor	50	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
% Solids	94.1	%		3/27/01	RLJ	SM2540 B Mod

Lab ID No: AC36559
Client Id: GT-WWL

Collection Date: 3/20/01
Matrix: Soil

Parameter	Results	Units	PQL	Start Date	Analyst	Method
VOC Preparation						
VOC Extraction (solid)	Field ext\			3/20/01		SW846 5035
Volatile Organic Compounds						
VPH Aliphatics/Aromatics						
C5-C8 Aliphatic Hydrocarbons	Below det lim	mg/Kg	1.10	3/26/01	RLJ	MA VPH 97-12
C9-C12 Aliphatic Hydrocarbons	Below det lim	mg/Kg	0.365	3/26/01	RLJ	MA VPH 97-12
C9-C10 Aromatic Hydrocarbons	Below det lim	mg/Kg	0.365	3/26/01	RLJ	MA VPH 97-12
Unadjusted C5-C8 Aliphatics	Below det lim	mg/Kg	1.10	3/26/01	RLJ	MA VPH 97-12
Unadjusted C9-C12 Aliphatics	Below det lim	mg/Kg	0.365	3/26/01	RLJ	MA VPH 97-12
Carbon Chain Dilution Factor	50	mg/Kg	0.	3/26/01	RLJ	MA VPH 97-12
VPH Target Analytes						
Benzene	Below det lim	ug/Kg	73	3/26/01	RLJ	MA VPH 97-12
Toluene	Below det lim	ug/Kg	73	3/26/01	RLJ	MA VPH 97-12
Ethylbenzene	Below det lim	ug/Kg	73	3/26/01	RLJ	MA VPH 97-12
m,p-Xylenes	Below det lim	ug/Kg	150	3/26/01	RLJ	MA VPH 97-12
o-Xylene	Below det lim	ug/Kg	73	3/26/01	RLJ	MA VPH 97-12
Naphthalene	Below det lim	ug/Kg	73	3/26/01	RLJ	MA VPH 97-12
Methyl-tert-butyl ether (MTBE)	Below det lim	ug/Kg	73	3/26/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) PID	110	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) FID	105	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) GCMS	NA	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
4-Bromofluorobenzene (%SR) GCMS	NA	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
Target Analytes Dilution Factor	50	ug/Kg	0.	3/26/01	RLJ	MA VPH 97-12
% Solids	93.8	%		3/27/01	RLJ	SM2540 B Mod

Lab ID No: AC36559
Client Id: GT-WWL

Collection Date: 3/20/01
Matrix: Soil

Parameter	Results	Units	PQL	Start Date	Analyst	Method

The following outlines the condition of all VPH samples contained within this report upon laboratory receipt.

Matrix	☐ Aqueous ☑ Soil ☐ Sediment ☐ Other:		
Containers	☑ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous	☑ N/A ☐ pH≤2 ☐ pH>2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT received in Methanol or air-tight container	ml Methanol/g soil ☑ 1:1 +/- 25% ☐ Other:
		☑ Samples received in Methanol covering soil ☐ not covering soil	
		☐ Sample received in air-tight container:	
Temperature	☑ Received on ice ☐ Received cold ☐ Received ambient ☑ Recorded temperature: 3°C		

Were all QA/QC procedures followed as required by the VPH method? Yes ✓ No ____
Were any significant modifications made to the VPH method, as specified in Section 11.3? No * see below
Were all performance/acceptance standards for required QA/QC procedures achieved? Yes ✓ No ____

* Yes, if PID and FID surrogate recoveries are listed as n/a, then that sample was run via GCMS using all QC criteria specified in the method.

I attest that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Reviewed by:

Quality Service/Quality Assurance Depts.

Validated by:

President/Laboratory Director

3/27/01

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report Supplement
References

SW 846	Test Methods for Evaluating Solid Waste. Third edition, 1998
40 CFR 136	Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act
40 CFR 141	National Primary Drinking Water Regulations
40 CFR 143	National Secondary Drinking Water Regulations
40 CFR 160	Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), Good Laboratory Practice Standards
APHA-AWWA-WPCF	Standard Methods for the Examination of Water and Wastewater. 19th edition, 1995
ASTM D 3328	Standard Methods for the Comparison of Waterborne Petroleum Oils by Gas Chromatography
EPA 540/G-87/003	Data Quality Objectives for Remediation Response Activities, Development Process
EPA 600/4-79-012	Quality Assurance Handbook for Analytical Quality Control in Water and Wastewater Laboratories
EPA 600/4-79-019	Handbook for Analytical Quality Control in Water and Wastewater Laboratories
EPA 600/4-79-020	Method for the Chemical Analysis of Water and Wastes
EPA 600/4-82-057	Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater
EPA 600/4-85/056	Choosing Cost-Effective QA/QC Programs for Chemical Analysis
EPA 600/4-88/039	Method for the Determination of Organic Compounds in Drinking Water
CT ETPH	Analysis of Extractable Total Petroleum Hydrocarbons (ETPH)
MADEP EPH	Method for the Determination of Extractable Petroleum Hydrocarbons (EPH)
MADEP VPH	Method for the Determination of Volatile Petroleum Hydrocarbons (VPH)
QAMS 004/80	Guidelines and Specifications for Preparing Quality Assurance Program Plans, USEPA Office of Monitoring System and Quality Assurance
GC-D-52-77	Oil Spill Identification System

Acronyms & Abbreviations

AA	Atomic Absorption
ASTM	American Society for Testing and Materials
BOD	Biological Oxygen Demand
°C	degree(s) Celsius
COD	Chemical Oxygen Demand
CMR	Code of Massachusetts Regulations
DEP	Department of Environmental Protection
DI	De-ionized
DO	Dissolved Oxygen
EPA	Environmental Protection Agency
EPH	Extractable Petroleum Hydrocarbons
FID	Flame Ionization Detector
GC	Gas Chromatograph
GC / MS	Gas Chromatograph / Mass Spectrometer
ICP	Inductively Coupled Plasma
Id	Identification
MCL	Maximum Contaminant Level
MDL	Minimum Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NTU	Nephelometric Turbidity Units
PAHs	Polynuclear Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PID	Photo Ionization Detector
PQL	Practical Quantitation Limit
R	Recovery (%R: Percent Recovery)
RSD	Relative Standard Deviation
SM	Standard Method
SR	Surrogate Recovery (%SR)
SW	Solid Waste
THM	Trihalomethane(s)
TOC	Total Organic Carbon
TOX	Total Organic Halogen
TPH	Total Petroleum Hydrocarbons
VOC	Volatile Organic Compound
VPH	Volatile Petroleum Hydrocarbons

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- ☐ Standard TAT - 7 to 10 business days
- ☒ Rush TAT - Date Needed: 3/27/01
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- All samples are disposed of after 60 days unless otherwise instructed.

Report To: TAGE
Needham, MA

Project Mgr.: C. Shapiro

Invoice To: SAME

P.O. No.: HC3128.01 RQN:

Project No.: HC3128.01
Site Name: 1010 Commonwealth Ave
Location: Brookline State: MA
Sampler(s): A. Bevan

1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8= $NaHSO_4$ 9=_____ 10=_____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW= Surface Water SO=Soil SL=Sludge A=Air
X1=_____ X2=_____ X3=_____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: UPH	Notes:
AC 8556	GT-NWL	3/20/01	AM	C	SO	7	2		1		X	
AC 8557	GT-SWL	3/20/01	AM	C	SO	7	2		1		X	
AC 8558	GT-EWL	3/20/01	AM	C	SO	7	2		1		X	
AC 8559	GT-WWL	3/20/01	AM	C	SO	7	2		1		X	
AC												
AC												
AC												
AC												
AC												
AC												

Dry wt received 3/27

☐ Fax results when available to (____) _____

☐ E-mail results when available to _____

Condition upon Receipt: ☒ Iced ☐ Ambient 2.5 °C

Relinquished by:	Received by:	Date:	Time:
Andrew Bevan		3-20-01	12:00
		3-20-01	3:40 p.m.

11 Almgren Drive • Agawam, Massachusetts 01001 • 413-789-9018 • Fax 413-789-4076 • www.spectrum-analytical.com

APPENDIX C

LABORATORY REPORT – STOCKPILED SOIL SAMPLES

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Massachusetts Certification # M-MA138
Rhode Island # 98 Maine # MA138
Florida # E87600 / 87562
New Hampshire # 2538
Connecticut # PH-0777
New York # 11393

TGG Environmental Inc.
100 Crescent Road
Needham, MA 02494

Attn: Carl Shapiro

Friday, April 13, 2001

Report Status:
☑ Final Report
☐ Re-issued Report
☐ Revised Report

Client Project Number: HC3128.2 **Location:** Commonwealth - Brookline, MA

Laboratory ID	Client Sample ID	Analyses Requested
AC39290	STKPL-1/ S-1	% Solids
		VOC Extraction (solid)
		VPH Aliphatics/Aromatics
		VPH Target Analytes
AC39291	STKPL-1/ S-2	% Solids
		VOC Extraction (solid)
		VPH Aliphatics/Aromatics
		VPH Target Analytes

I attest that all information contained within this report has been reviewed for accuracy and checked against all quality control requirements outlined in each applicable method and meet the requirements of NELAC including any data obtained from a subcontract laboratory. Please note that all solid matrix sample results are calculated on a dry weight basis unless otherwise specified.

This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Authorized by:

Hanibal C. Tayeh
President/Laboratory Director

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Location: Commonwealth - Brookline, MA
Client: TGG
Lab ID No: AC39290
Client Id: STKPL-1/ S-1

Client Project No: HC3128.2
Submittal Date: 4/9/01
Collection Date: 4/6/01
Matrix: Soil

Parameter	Results	Units	PQL	Start Date	Analyst	Method
VOC Preparation						
VOC Extraction (solid)	Field ext			4/6/01		SW846 5035
Volatile Organic Compounds						
VPH Aliphatics/Aromatics						
C5-C8 Aliphatic Hydrocarbons	272	mg/Kg	46.0	4/11/01	RLJ	MA VPH 97-12
C9-C12 Aliphatic Hydrocarbons	387	mg/Kg	15.3	4/11/01	RLJ	MA VPH 97-12
C9-C10 Aromatic Hydrocarbons	962	mg/Kg	15.3	4/11/01	RLJ	MA VPH 97-12
Unadjusted C5-C8 Aliphatics	974	mg/Kg	46.0	4/11/01	RLJ	MA VPH 97-12
Unadjusted C9-C12 Aliphatics	1,349	mg/Kg	15.3	4/11/01	RLJ	MA VPH 97-12
Carbon Chain Dilution Factor	2,500	mg/Kg	0.	4/11/01	RLJ	MA VPH 97-12
VPH Target Analytes						
Benzene	1,700	ug/Kg	610	4/11/01	RLJ	MA VPH 97-12
Toluene	254,300	ug/Kg	3100	4/11/01	RLJ	MA VPH 97-12
Ethylbenzene	86,100	ug/Kg	3100	4/11/01	RLJ	MA VPH 97-12
m,p-Xylenes	360,300	ug/Kg	6100	4/11/01	RLJ	MA VPH 97-12
o-Xylene	136,600	ug/Kg	3100	4/11/01	RLJ	MA VPH 97-12
Naphthalene	22,400	ug/Kg	3100	4/11/01	RLJ	MA VPH 97-12
Methyl-tert-butyl ether (MTBE)	Below det lim	ug/Kg	3100	4/11/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) PID	115	ug/Kg	0.	4/11/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) FID	120	ug/Kg	0.	4/11/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) GCMS	NA	ug/Kg	0.	4/11/01	RLJ	MA VPH 97-12
4-Bromofluorobenzene (%SR) GCMS	NA	ug/Kg	0.	4/11/01	RLJ	MA VPH 97-12
Target Analytes Dilution Factor	500/2,500	ug/Kg	0.	4/11/01	RLJ	MA VPH 97-12
% Solids	95.6	%		4/10/01	KW	SM2540 B Mod

Lab ID No: AC39291
Client Id: STKPL-1/ S-2

Collection Date: 4/6/01
Matrix: Soil

Parameter	Results	Units	PQL	Start Date	Analyst	Method
VOC Preparation						
VOC Extraction (solid)	Field ext			4/6/01		SW846 5035
Volatile Organic Compounds						
VPH Aliphatics/Aromatics						
C5-C8 Aliphatic Hydrocarbons	140	mg/Kg	40.8	4/11/01	RLJ	MA VPH 97-12
C9-C12 Aliphatic Hydrocarbons	375	mg/Kg	13.6	4/11/01	RLJ	MA VPH 97-12
C9-C10 Aromatic Hydrocarbons	759	mg/Kg	13.6	4/11/01	RLJ	MA VPH 97-12
Unadjusted C5-C8 Aliphatics	590	mg/Kg	40.8	4/11/01	RLJ	MA VPH 97-12
Unadjusted C9-C12 Aliphatics	1,134	mg/Kg	13.6	4/11/01	RLJ	MA VPH 97-12
Carbon Chain Dilution Factor	2,000	mg/Kg	0.	4/11/01	RLJ	MA VPH 97-12
VPH Target Analytes						
Benzene	Below det lim	ug/Kg	2700	4/11/01	RLJ	MA VPH 97-12
Toluene	156,900	ug/Kg	2700	4/11/01	RLJ	MA VPH 97-12
Ethylbenzene	55,600	ug/Kg	2700	4/11/01	RLJ	MA VPH 97-12
m,p-Xylenes	237,900	ug/Kg	5400	4/11/01	RLJ	MA VPH 97-12
o-Xylene	93,200	ug/Kg	2700	4/11/01	RLJ	MA VPH 97-12
Naphthalene	18,200	ug/Kg	2700	4/11/01	RLJ	MA VPH 97-12
Methyl-tert-butyl ether (MTBE)	Below det lim	ug/Kg	2700	4/11/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) PID	100	ug/Kg	0.	4/11/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) FID	105	ug/Kg	0.	4/11/01	RLJ	MA VPH 97-12
2,5-Dibromotoluene (%SR) GCMS	NA	ug/Kg	0.	4/11/01	RLJ	MA VPH 97-12
4-Bromofluorobenzene (%SR) GCMS	NA	ug/Kg	0.	4/11/01	RLJ	MA VPH 97-12
Target Analytes Dilution Factor	2,000	ug/Kg	0.	4/11/01	RLJ	MA VPH 97-12
% Solids	95.4	%		4/10/01	KW	SM2540 B Mod

Lab ID No: AC39291
Client Id: STKPL-1/ S-2

Collection Date: 4/6/01
Matrix: Soil

Parameter	Results	Units	PQL	Start Date	Analyst	Method

The following outlines the condition of all VPH samples contained within this report upon laboratory receipt.

Matrix	☐ Aqueous ☑ Soil ☐ Sediment ☐ Other:		
Containers	☑ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous	☑ N/A ☐ pH≤2 ☐ pH>2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT received in Methanol or air-tight container	ml Methanol/g soil ☑ 1:1 +/- 25% ☐ Other:
		☑ Samples received in Methanol covering soil ☐ not covering soil	
		☐ Sample received in air-tight container:	
Temperature	☑ Received on ice ☐ Received cold ☐ Received ambient ☑ Recorded temperature: 3°C		

Were all QA/QC procedures followed as required by the VPH method? Yes ✓ No ____
Were any significant modifications made to the VPH method, as specified in Section 11.3? No * see below
Were all performance/acceptance standards for required QA/QC procedures achieved? Yes ✓ No ____

* Yes, if PID and FID surrogate recoveries are listed as n/a, then that sample was run via GCMS using all QC criteria specified in the method.

I attest that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Reviewed by:

DW

Quality Service/Quality Assurance Depts.

Validated by:

President/Laboratory Director

4/13/01

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report Supplement
References

SW 846	Test Methods for Evaluating Solid Waste. Third edition, 1998
40 CFR 136	Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act
40 CFR 141	National Primary Drinking Water Regulations
40 CFR 143	National Secondary Drinking Water Regulations
40 CFR 160	Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), Good Laboratory Practice Standards
APHA-AWWA-WPCF	Standard Methods for the Examination of Water and Wastewater. 19th edition, 1995
ASTM D 3328	Standard Methods for the Comparison of Waterborne Petroleum Oils by Gas Chromatography
EPA 540/G-87/003	Data Quality Objectives for Remediation Response Activities, Development Process
EPA 600/4-79-012	Quality Assurance Handbook for Analytical Quality Control in Water and Wastewater Laboratories
EPA 600/4-79-019	Handbook for Analytical Quality Control in Water and Wastewater Laboratories
EPA 600/4-79-020	Method for the Chemical Analysis of Water and Wastes
EPA 600/4-82-057	Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater
EPA 600/4-85/056	Choosing Cost-Effective QA/QC Programs for Chemical Analysis
EPA 600/4-88/039	Method for the Determination of Organic Compounds in Drinking Water
CT ETPH	Analysis of Extractable Total Petroleum Hydrocarbons (ETPH)
MADEP EPH	Method for the Determination of Extractable Petroleum Hydrocarbons (EPH)
MADEP VPH	Method for the Determination of Volatile Petroleum Hydrocarbons (VPH)
QAMS 004/80	Guidelines and Specifications for Preparing Quality Assurance Program Plans, USEPA Office of Monitoring System and Quality Assurance
GC-D-52-77	Oil Spill Identification System

Acronyms & Abbreviations

AA	Atomic Absorption
ASTM	American Society for Testing and Materials
BOD	Biological Oxygen Demand
°C	degree(s) Celsius
COD	Chemical Oxygen Demand
CMR	Code of Massachusetts Regulations
DEP	Department of Environmental Protection
DI	De-ionized
DO	Dissolved Oxygen
EPA	Environmental Protection Agency
EPH	Extractable Petroleum Hydrocarbons
FID	Flame Ionization Detector
GC	Gas Chromatograph
GC / MS	Gas Chromatograph / Mass Spectrometer
ICP	Inductively Coupled Plasma
Id	Identification
MCL	Maximum Contaminant Level
MDL	Minimum Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NTU	Nephelometric Turbidity Units
PAHs	Polynuclear Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PID	Photo Ionization Detector
PQL	Practical Quantitation Limit
R	Recovery (%R: Percent Recovery)
RSD	Relative Standard Deviation
SM	Standard Method
SR	Surrogate Recovery (%SR)
SW	Solid Waste
THM	Trihalomethane(s)
TOC	Total Organic Carbon
TOX	Total Organic Halogen
TPH	Total Petroleum Hydrocarbons
VOC	Volatile Organic Compound
VPH	Volatile Petroleum Hydrocarbons

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- ☐ Standard TAT - 7 to 10 business days
- ☑ Rush TAT - Date Needed: 4/13
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- All samples are disposed of after 60 days unless otherwise instructed.

Report To: TGG Environmental
100 Crescent Rd
Needham MA

Project Mgr.: Carl Shapiro

Invoice To: & Same &

P.O. No.: HC3128.2 RQN:

Project No.: HC3128.2
Site Name: 1010 Commonwealth Ave
Location: Brookline State: MA
Sampler(s): S. Orlow

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8=$NaHSO_4$ 9=4°C 10=

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1= X2= X3=

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: VPH								Notes:
AC 39290	STKPL-1/S-1	4/6	AM	G	SO	7.9	1		1		X								
AC 39291	STKPL-1/S-2	4/6	AM	G	SO	7.9	1		1		X								
AC																			
AC																			
AC																			
AC																			
AC																			
AC																			
AC																			
AC																			

☑ Fax results when available to (781) 449-1283
☐ E-mail results when available to
Condition upon Receipt: ☒ Iced ☐ Ambient ☐ 3 °C

Relinquished by:	Received by:	Date:	Time:
	Bergeron	4-9-01	12:08 PM
Bergeron		4-9-01	3:43 P.M

11 Almgren Drive • Agawam, Massachusetts 01001 • 413-789-9018 • Fax 413-789-4076 • www.spectrum-analytical.com

APPENDIX D

LABORATORY REPORT – TEST BORING B-8 SOIL SAMPLE

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY
Massachusetts Certification # M-MA138
Rhode Island # 98 .Maine # MA138
Florida # E87600 / 87562
New Hampshire # 2538
Connecticut # PH-0777
New York # 11393

ACCREDITED IN ACCORDANCE WITH nelac

TGG Environmental Inc.
100 Crescent Road
Needham, MA 02494

Attn: Carl Shapiro

Wednesday, June 06, 2001

Report Status:
☑ Final Report
☐ Re-issued Report
☐ Revised Report

Client Project Number: HC3128.0 **Location:** 1010 Commonwealth Ave - MA

Laboratory ID	Client Sample ID	Analyses Requested
AC50076	B-8/S-4	VOC Extraction (solid) VPH Aliphatics/Aromatics VPH Target Analytes % Solids

I attest that all information contained within this report has been reviewed for accuracy and checked against all quality control requirements outlined in each applicable method and meet the requirements of NELAC including any data obtained from a subcontract laboratory. Please note that all solid matrix sample results are calculated on a dry weight basis unless otherwise specified.

This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Authorized by:

Hanibal C. Tayeh
President/Laboratory Director

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Location: 1010 Commonwealth Ave - MA
Client: TGG
Lab ID No: AC50076
Client Id: B-8/S-4

Client Project No: HC3128.0
Submittal Date: 6/1/01
Collection Date: 5/30/01
Matrix: Soil

Parameter	Results	Units	PQL	Start Date	Analyst	Method
VOC Preparation						
VOC Extraction (solid)	Field ext			5/30/01		SW846 5035
Volatile Organic Compounds						
VPH Aliphatics/Aromatics						
C5-C8 Aliphatic Hydrocarbons	Below det lim	mg/Kg	1.15	6/5/01	TR	MA VPH 97-12
C9-C12 Aliphatic Hydrocarbons	Below det lim	mg/Kg	0.385	6/5/01	TR	MA VPH 97-12
C9-C10 Aromatic Hydrocarbons	1.4	mg/Kg	0.385	6/5/01	TR	MA VPH 97-12
Unadjusted C5-C8 Aliphatics	Below det lim	mg/Kg	1.15	6/5/01	TR	MA VPH 97-12
Unadjusted C9-C12 Aliphatics	1.5	mg/Kg	0.385	6/5/01	TR	MA VPH 97-12
Carbon Chain Dilution Factor	50	mg/Kg	0.	6/5/01	TR	MA VPH 97-12
VPH Target Analytes						
Benzene	Below det lim	ug/Kg	77	6/5/01	TR	MA VPH 97-12
Toluene	Below det lim	ug/Kg	77	6/5/01	TR	MA VPH 97-12
Ethylbenzene	Below det lim	ug/Kg	77	6/5/01	TR	MA VPH 97-12
m,p-Xylenes	Below det lim	ug/Kg	150	6/5/01	TR	MA VPH 97-12
o-Xylene	Below det lim	ug/Kg	77	6/5/01	TR	MA VPH 97-12
Naphthalene	130	ug/Kg	77	6/5/01	TR	MA VPH 97-12
Methyl-tert-butyl ether (MTBE)	Below det lim	ug/Kg	77	6/5/01	TR	MA VPH 97-12
2,5-Dibromotoluene (%SR) PID	120	ug/Kg	0.	6/5/01	TR	MA VPH 97-12
2,5-Dibromotoluene (%SR) FID	117	ug/Kg	0.	6/5/01	TR	MA VPH 97-12
2,5-Dibromotoluene (%SR) GCMS	na	ug/Kg	0.	6/5/01	TR	MA VPH 97-12
4-Bromofluorobenzene (%SR) GCMS	na	ug/Kg	0.	6/5/01	TR	MA VPH 97-12
Target Analytes Dilution Factor	50	ug/Kg	0.	6/5/01	TR	MA VPH 97-12
% Solids	88.9	%		6/5/01	TR	SM2540 B Mod