

EXHIBIT C-5

RTN 3-0015442, Powerplant

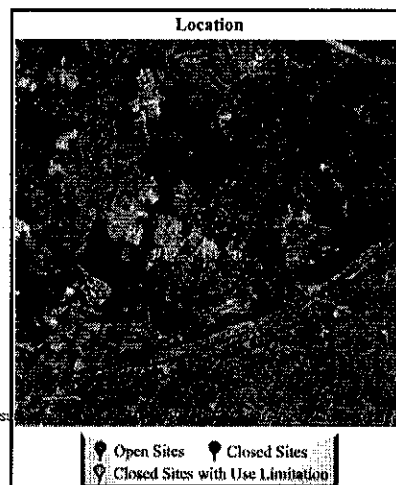
| Site Information | | | |
|-----------------------------|----------------|----------------|---------------|
| Site Number: | 3-0015442 | Category: | TWO HR |
| Site Name: | POWERPLANT | Release Type: | RAO |
| Address: | 200 TRAPELO RD | Current date: | 10/24/1997 |
| Town: | WALTHAM | Phase: | |
| Zipcode: | 02154-0000 | RAO class: | |
| Official notification date: | 8/19/1997 | Location type: | SCHOOL, STATE |
| Initial status date: | 8/19/1998 | Source: | PIPE, VEHICLE |

| Response Action Information | |
|-----------------------------|--|
| Response Action Type: | RAO - Response Action Outcome - RAO |
| Status: | RAORCD - RAO Statement Received |
| Submittal Date: | 10/24/1997 |
| RAO class: | A2 |
| Activity & Use Limitation: | NONE |
| Response Action Information | |
| Response Action Type: | RNF - Release Notification Form Received |
| Status: | REPORT - Reportable Release or Threat of Release |
| Submittal Date: | 10/14/1997 |
| RAO class: | |
| Activity & Use Limitation: | |
| Response Action Information | |
| Response Action Type: | IRA - Immediate Response Action |
| Status: | APORAL - Oral Approval of Plan or Action |
| Submittal Date: | 8/19/1997 |
| RAO class: | |
| Activity & Use Limitation: | |
| Response Action Information | |
| Response Action Type: | REL - Potential Release or Threat of Release |
| Status: | REPORT - Reportable Release or Threat of Release |
| Submittal Date: | 8/19/1997 |
| RAO class: | |
| Activity & Use Limitation: | |

| Chemicals | | |
|-------------|--------|-------|
| Chemical | Amount | Units |
| #6 FUEL OIL | 100 | GAL |
| FUEL OIL #6 | 100 | GAL |

| LSPs | |
|------|---------------------|
| LSP# | Name |
| 9763 | LESSARD, LAWRENCE H |

| RAO Detail | | | |
|------------|--------|-------------|---------------|
| Class | Method | GW Category | Soil Category |
| A2 | 2 | 2 | 1 |
| A2 | 2 | 2 | 1 |



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CORPORATE ENVIRONMENTAL ADVISORS, INC.

o/A
Response Action Outcome Statement

#6 Fuel Oil Release
Fernald School
200 Trapelo Road
Waltham, Massachusetts
Release Tracking Number, 3-15442
CEA Ref. # 3404-97-1
October 24, 1997
A-2

Party Assuming Responsibility for the Immediate Response Action and Response Action Outcome:

T.S. Truck Service
Mr. Jay Howard President
7 Christo Lane
Millbury, MA 01527 508-799-7629

Consultant Performing the Immediate Response Action:

Corporate Environmental Advisors, Inc. (CEA)
Marc E. Brochu Hydrogeologist
127 Hartwell Street
West Boylston, MA 01583 508-835-8822

Licensed Site Professional:

Lawrence H. Lessard L.S.P. # 9763
CEA, Inc.
127 Hartwell Street
West Boylston, MA 01583 508-835-8822

CORPORATE HEADQUARTERS: HARTWELL BUSINESS PARK, 127 HARTWELL STREET, WEST BOYLSTON, MA 01583 • PHONE: 508-835-8822 FAX: 508-835-8812

BRANCH OFFICE: P. O. BOX 1246, WHITE RIVER JUNCTION, VT 05001 • PHONE: 802-295-5222 FAX: 802-295-5225

E-MAIL ADDRESS: cea@ma.ultranet.com



October 24, 1997

CORPORATE ENVIRONMENTAL ADVISORS, INC.

MA-DEP Northeast Region
Bureau of Waste Site Cleanup
10 Commerce Way
Woburn, MA 01801

**RE: Response Action Outcome Statement
MA-DEP Site #3-15442
Fernald School
200 Trapelo Road
Waltham, Massachusetts
CEA Ref. # 3404-97-1**

On behalf of T.S. Truck Service, Inc., Corporate Environmental Advisors, Inc. (CEA) submits the attached Class A Response Action Outcome Statement for the above-referenced property. A Release Notification Form for this RTN was previously submitted to the MA DEP on October 14, 1997.

If there are any questions or comments regarding this submittal, please feel free to contact our office at (508) 835-8822.

Sincerely,
CEA, Inc.

Marc E. Brochu
Hydrogeologist

MEB:meb

Enc: RAO Statement

pc: Mr. Jay Howard
T.S. Truck Service
7 Christo Lane
Millbury, MA 01527

Lawrence H. Lessard, LSP
CEA, Inc.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-104

RESPONSE ACTION OUTCOME (RAO) STATEMENT &
DOWNGRADIANT PROPERTY STATUS TRANSMITTAL FORM

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

Release Tracking
Number

3 - 15442

A. SITE OR DOWNGRADIANT PROPERTY LOCATION:

Site Name: (optional) Fernald School

Street 200 Trapelo Road

Location Aid: _____

City/Town: Waltham

ZIP 02154-0000

☐ Check here if this Site location is Tier
Classified.

If a Tier I Permit has been issued, state the Permit
Number: _____

Related Release Tracking Numbers that this Form
Addresses: _____

If submitting an RAO Statement, you must document the location of the Site or the location and boundaries of the Disposal Site subject to this Statement. If submitting an RAO Statement for a PORTION of a Disposal Site, you must document the location and boundaries for both the portion subject to this submittal and, to the extent defined, the entire Disposal Site. If submitting a Downgradient Property Status Submittal, you must provide a site plan of the property subject to the submittal and, to the extent defined, the Disposal Site.

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

☒ Submit a Response Action Outcome (RAO) Statement (complete Sections A, B, C, D, E, F, H, I, J and L).

OCT 2 A 1997

☐ Check here if this is a revised RAO Statement. Date of Prior
Submittal: _____

☐ Check here if any Response Actions remain to be taken to address conditions associated with any of the Releases whose Release
Tracking Numbers are listed above. This RAO Statement will record only an RAO-Partial Statement for those Release Tracking
Numbers.

Specify Affected Release Tracking
Numbers: _____

☐ Submit an optional Phase I Completion Statement supporting an RAO Statement or Downgradient Property Status Submittal
(complete Sections A, B, H, I, J, and L).

☐ Submit a Downgradient Property Status Submittal (complete Sections A, B, G, H, I, J and K).

☐ Check here if this is a revised Downgradient Property Status
Submittal.

Date of Prior
Submittal: _____

☐ Submit a Termination of a Downgradient Property Status Submittal (complete Sections A, B, I, J and L).

☐ Submit a Periodic Review Opinion evaluating the status of a Temporary Solution (complete Sections A, B, H, I, J
and L).

Specify ☐ For a Class C RAO ☐ For a Waiver Completion Statement indicating a Temporary
one: Solution

Provide Submittal Date of RAO Statement or Waiver Completion
Statement: _____

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

☐ Assessment and/or Monitoring Only

☒ Removal of Contaminated Soils

☒ Re-use, Recycling or Treatment

☐ On Site ☒ Off Site Est. Vol.: 15 cubic yards

Describe: _____

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

☐ Removal of Drums, Tanks or Containers

Describe: _____

☐ Removal of Other Contaminated Media

Specify Type and
Volume: _____

☒ Other Response Actions

Describe Assessment

☒ Deployment of Absorbant or Contaminant
Materials

☐ Temporary Covers or Caps

☐ Bioremediation

☐ Soil Vapor
Extraction

☐ Structure Venting System

☐ Product or NAPL
Recovery

☐ Groundwater Treatment
Systems

☐ Air Sparging

☐ Temporary Water Supplies

☐ Temporary Evacuation or Relocation of
Residents

☐ Fencing and Sign Posting

SECTION C IS CONTINUED ON THE NEXT PAGE.



RESPONSE ACTION OUTCOME (RAO) STATEMENT &
DOWNGRADE PROPERTY STATUS TRANSMITTAL FORM

Release Tracking
Number

3 - 15442

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

C. DESCRIPTION OF RESPONSE ACTIONS: (continued)

- ☐ Check here if any Response Action(s) that serve as the basis for this RAO Statement involve the use of Innovative Technologies. (DEP is interested in using this information to create an Innovative Technologies Clearinghouse.)

Describe
Technologies:

D. TRANSPORT OF REMEDIATION WASTE: (if Remediation Waste was sent to an off-site facility, answer the following questions)

Name of Facility: AMREC; Northland Environmental, Inc.

Town and State: Charlton, MA; Providence, RI

Quantity of Remediation Waste Transported to Date: 25.5 tons, 10/8/97; 2,400 lbs., 10/3/97

E. RESPONSE ACTION OUTCOME CLASS:

Specify the Class of Response Action Outcome that applies to the Site or Disposal Site. Select ONLY one Class:

- ☐ Class A-1 RAO: Specify one of the following:

☐ Contamination has been reduced to background levels.

☐ A Threat of Release has been eliminated.

- ☒ Class A-2 RAO: You MUST provide justification that reducing contamination to background levels is infeasible.

- ☐ Class A-3 RAO: You MUST provide both an implemented Activity and Use Limitation (AUL) and justification that reducing contamination to background levels is infeasible.

If applicable, provide the earlier of the AUL expiration date or date the design life of the remedy will end: _____

- ☐ Class B-1 RAO: Specify one of the following:

☐ Contamination is consistent with background levels

☐ Contamination is NOT consistent with background levels.

- ☐ Class B-2 RAO: You MUST provide an implemented AUL.

If applicable, provide the AUL expiration date: _____

- ☐ Class C RAO: ☐ Check here if you will conduct post-RAO Operation, Maintenance and Monitoring at the Site.

Specify One: ☐ Passive Operation and Maintenance ☐ Monitoring Only
☐ Active Operation and Maintenance (defined at 310 CMR 40.0006)

F. RESPONSE ACTION OUTCOME INFORMATION:

- ☐ If an RAO Compliance Fee is required, check here to certify that the fee has been submitted. You MUST attach a photocopy of the payment.

- ☐ Check here if submitting one or more AULs. You must attach an AUL Transmittal Form (BWSC-113) and a copy of each implemented AUL related to this RAO Statement. Specify the type of AUL(s) below: (required for all Class A-3 RAOs and Class B-2 RAOs)

☐ Notice of Activity and Use Limitation

☐ Grant of Environmental Restriction

Number of AULs
attached: _____

Specify the Risk Characterization Method(s) used to achieve the RAO described above and all Soil and Groundwater Categories applicable to the Site.

More than one Soil Category and more than one Groundwater Category may apply at a Site.
Be sure to check off all APPLICABLE categories, even if more stringent soil and groundwater standards were met.

Risk Characterization Method(s)
Used:

☐ Method 1

☒ Method 2

☐ Method 3

Soil Category(ies) Applicable:

☒ S-1

☒ S-2

☒ S-3

Groundwater Category(ies) Applicable:

☐ GW-1

☒ GW-2

☒ GW-3

> When submitting any Class A-1 RAO or a Class B-1 RAO where contamination is consistent with background levels, do NOT specify a Risk Characterization Method.

> When submitting any Class A-2 RAO or a Class B-1 RAO where contamination is NOT consistent with background levels, you cannot use an AUL to maintain a level of no significant risk. Therefore, you must meet S-1 Soil Standards, if using Risk Characterization Method 1.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-104

RESPONSE ACTION OUTCOME (RAO) STATEMENT &
DOWNGRAIDENT PROPERTY STATUS TRANSMITTAL FORM

Release Tracking
Number

3 - 15442

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

G. DOWNGRAIDENT PROPERTY STATUS SUBMITTAL:

☐ If a Downgradient Property Status Submittal Compliance Fee is required, check here to certify that the fee has been submitted. You MUST attach a photocopy of the payment.

☐ Check here if a Release(s) of Oil or Hazardous Material(s), other than that which is the subject of this submittal, has occurred at this property.

Release Tracking _____

☐ Check here if the Releases identified above require further Response Actions pursuant to 310 CMR 40.0000.

Required documentation for a Downgradient Property Status Submittal includes, but is not limited to, copies of notices provided to owners and operators of both upgradient and downgradient abutting properties and of any known or suspected source properties.

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 indicates that a Downgradient Property Status Submittal is being provided, 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 310 CMR 40.0183(2)(b), and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B indicates that either an RAO Statement, Phase I Completion Statement and/or Periodic Review Opinion is being provided, 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.

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.

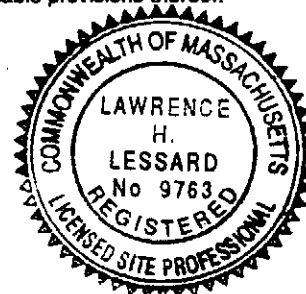
LSP Lawrence H. Lessard LSP #: 9763 Stamp:

Telephone 508-835-8822 Ext.: _____

FAX: 508-835-8812

Signature: [Signature]

Date: 10/24/97



I. PERSON MAKING SUBMITTAL:

Name of T.S. Truck Service

Name of Jay Howard Title: President

Street: 7 Christo Lane

City/Town: Millbury State MA ZIP Code: 01527-0000

Telephone: 508-799-7629 Ext.: _____ FAX: _____

J. RELATIONSHIP TO SITE OF PERSON MAKING SUBMITTAL: (check one)

☒ RP or PRP Specify: ☐ Owner ☐ Operator ☐ Generator ☒ Transporter Other RP or _____

☐ 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))

☐ Any Other Person Submitting This Form Specify _____



RESPONSE ACTION OUTCOME (RAO) STATEMENT &
DOWNGRAIDENT PROPERTY STATUS TRANSMITTAL FORM

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

Release Tracking
Number

3 - 15442

K. CERTIFICATION OF PERSON SUBMITTING DOWNGRAIDENT PROPERTY STATUS SUBMITTAL:

I, _____, 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 the/those individual(s) immediately responsible for obtaining the information, the material information contained herein is, to the best of my knowledge, information and belief, true, accurate and complete; (iii) that, to the best of my knowledge, information and belief, I/the person(s) or entity(ies) on whose behalf this submittal is made satisfy(ies) the criteria in 310 CMR 40.0183(2); (iv) that I/the person(s) or entity(ies) on whose behalf this submittal is made have provided notice in accordance with 310 CMR 40.0183(5); and (v) that I am fully authorized to make this attestation on behalf of the person(s) or entity(ies) legally responsible for this submittal. I/the person(s) or entity(ies) on whose behalf this submittal is made is/are 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 _____ Date: _____
(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) _____

L. CERTIFICATION OF PERSON MAKING SUBMITTAL:

If you are completing only a Downgradient Property Status Submittal, you do not need to complete this section of the form.

I, Jay Howard, 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: Joseph M. Howard Title: President
(signature)

For T.S. Truck Service Date: 10/3/97
(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, AND YOU MAY INCUR ADDITIONAL COMPLIANCE FEES.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-103

RELEASE NOTIFICATION & NOTIFICATION RETRACTION
FORM

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

Release Tracking
Number

3 - 15442

If assigned by DEP

A. RELEASE OR THREAT OF RELEASE LOCATION:

Street: 200 Trapelo Rd Location Aid: _____

City/Town: Waltham ZIP Code: 02154-0000

B. THIS FORM IS BEING USED

(check
one)

☒ Submit a Release Notification (complete all sections of this form).

☐ Submit a Retraction of a Previously Reported Notification of a Release or Threat of Release (complete Sections A, B, E, F and G of this form). You MUST attach the supporting documentation required by 310 CMR 40.0335.

C. INFORMATION DESCRIBING THE RELEASE OR THREAT OF RELEASE (TOR):

Date and time you obtained knowledge of the Release or TOR: 08/19/97 Time: 5:10 Specify: ☒ AM ☐ PM

The date you obtained knowledge is always required. The time you obtained knowledge is not required if reporting only 120 Day Conditions.

IF KNOWN, record date and time release or TOR occurred. 08/19/97 Time: 5:00 Specify: ☒ AM ☐ PM

☒ Check here if you previously provided an Oral Notification to DEP (2 Hour and 72 Hour Reporting Conditions only).

Provide date and time of Oral Notification. 08/19/97 Time: 5:30 Specify: ☒ AM ☐ PM

Check all Notification Thresholds that apply to the Release or Threat of Release: (for more information see 310 CMR 40.0310 - 40.0315)

2 HOUR REPORTING CONDITIONS

72 HOUR REPORTING CONDITIONS

120 DAY REPORTING CONDITIONS

☒ Sudden Release

☐ Threat of Sudden Release

☐ Oil Sheen on Surface Water

☐ Poses Imminent Hazard

☐ Could Pose Imminent Hazard

☐ Release Detected in Private Well

☐ Release to Storm Drain

☐ Sanitary Sewer Release (Imminent Hazard Only)

☐ Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/2 Inch

☐ Underground Storage Tank (UST) Release

☐ Threat of UST Release

☐ Release to Groundwater near Water Supply

☐ Release to Groundwater near School or Residence

☐ Release of Hazardous Material(s) to Soil or Groundwater Exceeding Reportable Concentration(s)

☐ Release of Oil to Soil Exceeding Reportable Concentration(s) and Affecting More than 2 Cubic Yards

☐ Release of Oil to Groundwater Exceeding Reportable Concentration(s)

☐ Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/8 Inch and Less than 1/2 Inch

List below the Oils or Hazardous Materials that exceed their Reportable Concentration or Reportable Quantity by the greatest amount. If necessary, attach a list of additional Oil and Hazardous Material substances subject to reporting.

Name and Quantities of Oils (O) and Hazardous Materials (HM)

Released:

O or HM Released

O HM
(check one)

CAS #
(if known)

Amount or
Concentration

Units

Reportable Concentrations
Exceeded, if Applicable
(RCS-1, RCS-2, RCGW-1, RCGW-2)

#6 Fuel Oil ☒ 100 gallons 10 gallons

D. ADDITIONAL INVOLVED PARTIES:

☒ Check here if attaching names and addresses of owners of properties affected by the Release or Threat of Release, other than an owner who is submitting this Release Notification (required).

☒ Check here if attaching Licensed Site Professional (LSP) name and address (optional).

You may write in names and addresses on the bottom of the second page of this form.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-103

RELEASE NOTIFICATION & NOTIFICATION RETRACTION
FORM

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

Release Tracking
Number

3 - 15442

If assigned by DEP

E. PERSON REQUIRED TO NOTIFY:

Name of Organization: T.S. Truck Service
Name of Contact: Jay Howard Title: President
Street: 7 Christo Lane
City/Town: Millbury State: MA ZIP Code: 01527-0000
Telephone: 508-799-7629 Ext.: _____ FAX: _____
(optional)

F. RELATIONSHIP OF PERSON REQUIRED TO NOTIFY TO RELEASE OR THREAT OF RELEASE: (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.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))
☐ Any Person Otherwise Required to Notify Specify Relationship: _____

G. CERTIFICATION OF PERSON REQUIRED TO NOTIFY:

I, Jay Howard, 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: Joseph M. Howard Title: President
(signature)
For T.S. Truck Service Date: 10/3/97
(print name of person or entity recorded in Section E)

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

Street: _____
City/Town: _____ State: _____ ZIP Code: _____
Telephone: _____ Ext.: _____ FAX: _____
(optional)

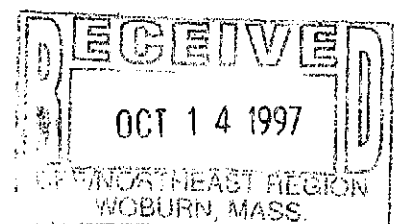
YOU MUST COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Property Affected:

Fernald School
200 Trapelo Road
Waltham, MA 02154

L.S.P.:

Lawrence H. Lessard, #9763
Corporate Environmental Advisors, Inc.
127 Hartwell St.
West Boylston, MA 01583
Tel: (508) 835-8822



Introduction:

On August 19, 1997, at approximately 5:00 a.m., up to 100 gallons of #6 fuel oil were released to an asphalt and concrete driveway surface and a dry drainage stream bed at the Fernald School located at 200 Trapelo Road in Waltham, Massachusetts, as shown in Figure 1, Site Locs. The release occurred when, during a routine delivery of fuel oil to one of two 25,000 gallon Underground Storage Tanks (USTs) at the site, the fuel fill line on a T.S. Truck Service delivery truck became disconnected from the fill port of the UST. An estimated 100 gallons of fuel oil were released to the concrete and asphalt surface beneath the truck, approximately 50 gallons of which migrated first laterally across the concrete and asphalt surface and then vertically down a concrete retaining wall and into a dry drainage stream bed, as detailed in Figure 2, Site Layout. Upon discovering the release, the driver immediately activated the fuel shut-off mechanism on the truck, and as such eliminated the source of the release. The 100 gallon release estimate was based upon the duration of fuel oil release from the disconnected fuel line and the extent of initial surficial impact. The release occurred in a parking lot/driveway at the Fernald School's boiler room building (plant), located at the southern end of the school campus

Release notification was made to the Massachusetts Department of Environmental Protection (DEP) by T.S. Truck Service, based on a two (2) hour reporting condition. A Two hour reporting criteria was met due to the observance of a sudden release to the environment of petroleum, identified as #6 fuel oil, at a quantity believed to be greater than the Reportable Quantity of 10 gallons, as specified in 310 CMR 40.0351 or 310 CMR 40.1600.

Receptors of the subject release included an approximate 200 square foot area of the asphalt and concrete parking lot/driveway surface adjacent to the boiler room building. Also impacted was a small amount of sand along the edges of this driveway surface, and approximately eight vertical linear feet of the concrete retaining wall which leads down to the drainage stream situated approximately eight feet below the level of the driveway.

Approximately forty square foot area of the rock and soil surface in the dry stream bed were impacted. Much of the fuel oil released to the stream bed coated large boulders in the stream bed in the area of the release with a film of oil.

The subject stream serves as a drainage basin for surface runoff from the upgradient portion of the Fernald School and discharges to a nonforested freshwater wetland approximately 600 feet downgradient of the subject release area.

Assessment beneath the asphalt and concrete of the driveway surface subsequently revealed that the soil beneath this surface had also been impacted by the subject release. Several large partings in the concrete surface likely facilitated the vertical migration of the released oil into these soils. In addition, an approximate five square foot area of the concrete UST fill port pad and stairs leading to this pad were impacted by the release.

Upon migrating to the stream, the released #6 oil pooled in a single isolated area in the stream bed and did not migrate down stream. The stream was dry at the time of the release. A puddle of standing water in the stream bed, approximately 50 feet downstream of the release area, showed no oil sheen or evidence of impact by the subject release.

No catch basins or storm drains were impacted by the subject release.

Immediate Response Action:

Initial Spill Response - August 19 and 20, 1997

The release occurred at approximately 5:00 a.m. Initial responders to the release included T.S. Truck Service personnel and Fernald School plant personnel. The MA DEP was subsequently notified of the release at 5:30 a.m. by T.S. Truck Service. Mr. Christopher Bresnahan of the MA DEP arrived on-site shortly thereafter. Mr. Bresnahan granted IRA verbal approval for the application of absorbents in the release area to contain the release.

Zecco, Inc. was contacted by T.S. Truck Service and retained at that time to perform the necessary remedial response actions. CEA was subsequently notified of the release by Zecco, Inc., and was, at that time retained as the



LSP. Additional notification to the Town of Waltham Fire Department was made by CEA within two hours of the time of release.

Zecco personnel arrived on site at approximately 6:00 a.m. and proceeded to apply granular absorbent to the entire impacted surface area of the driveway. Precautionary absorbent booms were placed in strategic locations down stream of the impacted portion of the stream bed. Booms were also placed in the driveway adjacent to the top of the retaining wall to prevent additional fuel oil product from migrating down this wall into the stream.

CEA personnel arrived at the release site at approximately 8:00 a.m. and proceeded to oversee the response actions in progress. Pursuant to MA DEP suggestion, CEA personnel provided written notification to the Massachusetts Conservation Commission on August 20, 1997. This notification was required as #6 oil had been released into a surface water basin approximately 600 feet upgradient of a wetland area.

Zecco, Inc. personnel repeatedly swept the granular absorbent over the entire impacted surface area of the concrete and asphalt driveway, and the impacted areas of the retaining wall and concrete fill port pad and stairs until all of the released #6 oil was removed from these surfaces. Only a minimal oil stain remained on these surfaces upon departure of Zecco personnel on August 19th.

On August 19th, Mr. Bresnahan granted additional verbal IRA approval for the excavation of up to five cubic yards of fuel oil impacted soil from the stream bed, and for the pumping of pooled oil product via vacuum truck from the dry stream bed.

A small amount (< 1 Cubic Yard) of soil was excavated by hand by Zecco personnel on August 19th, such that no free oil product remained on the stream bed. It was subsequently determined by CEA personnel that additional excavation of soil would be required to fully remediate the impacted area of the stream bed.

Prior to their departure from the site on August 19th, Zecco personnel placed additional precautionary absorbent booms along the stream bed downgradient and around the release area. The area of impacted soils in the stream bed was covered with polyethylene sheeting to ensure that potential rain showers would not wash fuel oil impacted soils downstream and into the wetland area.

The entire impacted area of the asphalt and concrete driveway surface, concrete retaining wall, and concrete fill port pad and stairs had been fully remediated upon the departure of Zecco personnel from the site on August 19th.

All remedial waste generated relative to the response actions conducted for the subject release on August 19th, including absorbent pads and booms, granular absorbent (Speedi-dry), and a small amount of soil and sand excavated from along the margins of the driveway area and from the stream bed, were placed in 17H DOT drums and temporarily stored on-site pending disposal by Zecco, Inc. under Hazardous Waste Manifest.

Both CEA and Zecco personnel returned to the site on August 20, 1997 and proceeded to excavate approximately five cubic yards of soil from the impacted area of the stream bed. Boulders in the stream bed which were impacted by the released fuel oil had been partially cleaned with granular absorbent on August 19th. Excavated soil was stockpiled on-site pending disposal under the Bill of Lading process. Soil in the excavation area was monitored by olfactory means. Excavation continued until no fuel oil odors were detected in the soil at the base of the stream bed.

Upon completion of the excavation, a representative composite soil sample was collected from the stream bed excavation area. On October 6, 1997 a composite soil sample was collected from the stream bed at a location upstream of the release and August 20th excavation. This sample was collected in order to determine the background conditions for the stream bed soils. The stream bed was dry at the time this sample was collected. Each of these samples was submitted to a state certified laboratory for analysis of Extractable Petroleum Hydrocarbons (EPH). The results of these analyses are included in Attachment 1 and are summarized below in Table 1.



Table 1
Stream Bed Soil Analytical Results

| Parameter (ppm) | Base (8/20/97) | Stream-2 (10/6/97) | MA-DEP S-1 Cleanup Standard |
|--------------------|----------------|--------------------|-----------------------------|
| C9-C18 Aliphatics | 24 | 5 | 1,000 |
| C19-C36 Aliphatics | 290 | 97 | 2,500 |
| C10-C22 Aromatics | 180 | 82 | 800 |
| Total EPH | 494 | 184 | --- |

All results presented in mg/Kg (parts per million), ppm

Both samples Stream-2 and Base exhibited no fuel oil odors. In addition, sample Stream-2 exhibited a concentration of Total Organic Vapors (TOV) below that which could be detected by a Photoionization Detector (PID) when screened in the field (ND). The EPH concentration exhibited in sample Stream-2 is considered representative of background conditions at the site for the stream bed soils. This EPH concentration is well below the applicable Cleanup Standard for category S-1 soils, and is considered a local condition, likely the result of runoff from upgradient road and parking lot surfaces which have drained into the stream. The EPH concentration in the sample designated 'Base' exceeds the local background condition in the stream bed, but is well below the applicable MA-DEP S-1 soil Cleanup Standard. Additional excavation in the impacted area of the stream bed to reduce petroleum hydrocarbon levels to background conditions was determined by both CEA and Zecco personnel to be infeasible based upon the high concentration of boulders in the excavation area, and the location of this area within a narrow wooded gully.

Subsurface Soil Assessment - August 25, 1997

CEA personnel returned to the site on August 25, 1997 to conduct a subsurface soil assessment for soils beneath the concrete and asphalt driveway surface. A soil sample collected by CEA personnel on August 20th from between a parking in the impacted, stained area of this surface revealed a total EPH concentration of 565 ppm, as included in Attachment 1. All associated Aliphatic and Aromatic constituent concentrations in this sample were well below the applicable MA DEP S-1 Cleanup Standards, but suggested that additional soils beneath the driveway surface in the release area may have been impacted.

On August 25th, CEA personnel advanced three borings through the concrete and asphalt surfaces by means of a hand soil auger. Soil samples were collected with the auger from depths of six inches to one foot below grade. The locations of these samples are included in Figure 2. Each of the three samples exhibited no fuel oil odors and exhibited TOV concentrations below that which could be detected by a PID when screened in the field. These samples were subsequently submitted for laboratory analysis of EPH and Polycyclic Aromatic Hydrocarbons (PAHs). The results of these analyses are included in Attachment 1 and are summarized below in Table 2.



Table 2
Soil Analytical Results
August 25, 1997

| EPH and PAH Parameters | S-1 (ppm) | S-2 (ppm) | S-3 (ppm) | MA DEP S-1 Cleanup Standard |
|------------------------|-----------|-----------|-----------|-----------------------------|
| C9-C18 Aliphatics | 14 | 19.8 | 65.6 | 1,000 |
| C19-C36 Aliphatics | 69.5 | 75.7 | 113 | 2,500 |
| C10-C22 Aromatics | 123 | 62.5 | 103 | 800 |
| Total EPH | 206 | 158 | 282 | --- |
| Anthracene | ND | ND | 1.09 | 1,000 / 5,000 |
| Benzo(a)anthracene | 2.07 | ND | 2.26 | 0.7 / 4.0 |
| Benzo(a)pyrene | 2.87 | ND | 1.76 | 0.7 / 0.7 |
| Benzo(b)fluoranthene | 4.71 | ND | 3.03 | 0.7 / 4.0 |
| Benzo(ghi)perylene | 2.4 | ND | 1.11 | 1,000 / 2,500 |
| Benzo(k)fluoranthene | 1.13 | ND | ND | 7.0 / 40 |
| Chrysene | 1.81 | ND | 2.49 | 7.0 / 40 |
| Dibenzo(a,h)anthracene | 2.54 | ND | ND | 0.7 / 0.8 |
| Fluoranthene | 1.31 | ND | 5.57 | 1,000 / 5,000 |
| Phenanthrene | ND | ND | 4.99 | 1,000 / 2,500 |
| Pyrene | 1.86 | ND | 5.56 | 700 / 5,000 |

ND = Not Detected

All results presented in bold face exceed applicable MA-DEP Cleanup Standards

Several PAH parameters, listed above for samples S-1 and S-3, exceed the applicable MA DEP S-1 Cleanup Standards. As such, excavation beneath the driveway surface would be required to reduce these levels to background conditions at the site. These samples also exceed the category Method 1 S-3 Cleanup Standards for Benzo(a)pyrene. Sample S-1 exceeds the Method 1 S-3 Cleanup Standards for Benzo(b)fluoranthene, and Dibenzo(a)anthracene. All EPH parameters and the remainder of the PAH parameters for which these samples were analyzed exhibited concentrations of these parameters which are well below the applicable Cleanup Standards.

Additional Excavation - October 6, 1997

CEA and Zecco personnel returned to the site on October 6, 1997 to conduct additional excavation of impacted soils beneath the concrete and asphalt paved driveway area. Mr. Bresnahan of the MA DEP had previously granted additional IRA verbal approval for the excavation of up to ten cubic yards of fuel oil impacted soil from this area on October 3, 1997.

Approximately ten cubic yards of soil were subsequently excavated on October 6th beneath the impacted portion of the driveway area. The excavation area was approximately 150 square feet and proceeded to a maximum depth of approximately three feet below grade. Soil in the excavation area was monitored by both olfactory means and by Photoionization. Upon completion of the excavation, representative composite soil samples were collected from the maximum extent of the excavation area. These samples exhibited no fuel oil odors and, when screened for TOV in the field, these samples exhibited fuel oil vapor levels below that which could be detected by the PID (ND). Samples S1-B, S2-B, and S3-B were subsequently submitted for laboratory analysis for EPH and associated PAH parameters. Locations of all soil samples are included in Figure 2. Results of these analyses are included in Attachment 1 and are summarized below in Table 3.



Table 3
Soil Analytical Results
October 6, 1997

| EPH and PAH Parameters | S-1B (ppm) | S-2B (ppm) | S-3B (ppm) | MA-DEP S-1/S-2/S-3 Cleanup Standards |
|------------------------|------------|------------|------------|--------------------------------------|
| Depth below Grade (ft) | 2.5 to 3 | 2.5 | 2.5 | ---- |
| PID (ppm) | ND | ND | ND | ---- |
| C9-C18 Aliphatics | ND | 3 | 2 | 1,000 |
| C19-C36 Aliphatics | 17 | 130 | 57 | 2,500 |
| C10-C22 Aromatics | 9 | 57 | 98 | 800 |
| Total EPH | 26 | 200 | 157 | ---- |
| Anthracene | ND | ND | ND | 1,000 / 5,000 |
| Benzo(a)anthracene | ND | ND | 4.0 | 0.7 / 4.0 |
| Benzo(a)pyrene | ND | ND | 3.0 | 0.7 / 0.7 |
| Benzo(b)fluoranthene | ND | ND | 5.0 | 0.7 / 4.0 |
| Benzo(ghi)perylene | ND | ND | 2.0 | 1,000 / 2,500 |
| Benzo(k)fluoranthene | ND | ND | ND | 7.0 / 40 |
| Chrysene | ND | ND | 4.0 | 7.0 / 40 |
| Dibenzo(a,h)anthracene | ND | ND | 3.0 | 0.7 / 0.8 |
| Fluoranthene | ND | 1.0 | 1.0 | 1,000 / 5,000 |
| Phenanthrene | ND | ND | 5.0 | 1,000 / 2,500 |
| Pyrene | ND | 1.0 | 8.0 | 700 / 5,000 |

ND = Not Detected

All results presented in bold face exceed applicable MA-DEP Cleanup Standards

Samples S1-B, S2-B, and S3-B exhibit EPH parameter concentrations which are well below the applicable MA DEP soil Cleanup Standards. Samples S1-B and S2-B also exhibit PAH parameter concentrations which are well below the applicable Cleanup Standards. Sample S-3, however, exhibits concentrations of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, and Dibenzo(a,h)anthracene which exceed the both the category S-1 and S-3 soil Cleanup Standards. These elevated PAH parameter levels are not, however, believed to be related to the subject #6 fuel oil release.

Mr. Maurice O'Connell the Plant Superintendent at the Fernald School informed CEA personnel that several releases of #6 fuel oil had occurred in the subject release area. According to Mr. O'Connell, the largest of these releases occurred approximately thirty years ago, when what was estimated to be over 100 gallons of #6 fuel oil were released to the driveway surface during a routine filling of the USTs at the site. Although the surficial impact of this release was remediated, no excavation or assessment of the soils beneath the driveway were performed in response to the release. Mr. O'Connell reported that the concrete driveway surface at that time was in poor condition, containing several cracks or partings.

During the excavation in this area on October 6, 1997, CEA personnel noted that soil beneath the driveway in the excavation area was significantly stained and exhibited a highly degraded texture. Soil in the entire excavation area, including the location where sample S-3B was collected, however, exhibited no fuel oil odors and TOV levels below that which could be detected by the PID, suggesting that this soil had likely been impacted by a historic release and that the volatile fuel hydrocarbon constituents introduced into this soil as a result of the historic releases had dissipated over time, leaving only heavier petroleum constituents in the soil such as Benzo(a)anthracene and Benzo(a)pyrene. In addition, sample S3-B was collected from the most upgradient portion of the excavation area, where there were relatively fewer cracks in the concrete and asphalt. A bulk of the fuel oil released to the driveway surface pooled in the driveway adjacent to the edge of the stairs leading up to the fill port pad in an area where the



concrete was highly fractured. It is reasonable to expect that soil impact in this area would be greater at equivalent depths within the subsurface.

As such, it is reasonable to correlate the remaining impact to the soil beneath the driveway in the area of Sample S-3B with historic releases of #6 fuel oil at the site which migrated vertically into these soils via fractures in the driveway surface. Elevated levels of specified PAH parameters should be considered representative of background conditions at the site.

Upon completion of the excavation on October 6th, the subject release had been fully remediated. All soil excavated from the stream bed on August 20th and stockpiled on-site, and all soil excavated on October 6th, a total of 25.5 tons, was transported to the AMREC facility in Charlton, Massachusetts for disposal under the Bill of Lading process on October 8, 1997. The excavation area was subsequently backfilled with clean fill, and a new concrete surface was poured.

Upon the departure of CEA and Zecco personnel from the site on October 6, 1997, no additional response actions would be required at the site relative to the subject release, and all remedial waste generated had been transported from the site and disposed of as described herein.

Management of Remediation Waste:

All remedial waste generated during the initial response to the release on August 19th, including absorbent pads and booms, granular absorbent, and a small volume (< 1 cubic yard) of hand-dug soil from the stream bed were temporarily stored on-site in three 17H DOT drums. This waste (2,400 pounds) was subsequently removed from the site and disposed of at Northland Environmental, Inc. in Providence, Rhode Island under a Hazardous Waste Manifest on October 3, 1997.

On August 20, 1997, approximately four to five cubic yards of fuel oil impacted soil were excavated from the stream bed and temporarily stockpiled on site and secured with polyethylene sheeting.

This stockpiled soil, along with approximately ten cubic yards of fuel oil impacted soil excavated from beneath the driveway surface on October 6, 1997 (a total of 25.5 tons), were transported to the AMREC facility in Charlton, Massachusetts for recycling under the Bill of Lading process on October 8, 1997.

Copies of all disposal documentation are included in Attachment 2. No other wastes were generated as a result of the remedial actions associated with this release.

Response Action Outcome:

Risk Characterization

Based on the results of this investigation, a Method 2 Risk Characterization will be used to characterize risk at the site, pursuant to 310 CMR 0971(1), which states "Method 2 may be used to characterize the risk of harm to health, public welfare and the environment at disposal sites where assessments conducted in accordance with 310 CMR 40.0000 have determined that the presence of oil and/or hazardous material is limited to soil and/or groundwater."

Potential human and environmental receptors identified within a five hundred foot radius of the site include the subject site and the adjacent Fernald School property. According to the MA-DEP GIS map for the Northeast Region of Massachusetts, the release site is not situated within a one-half mile Interim Protection Wellhead Area nor is it situated within a Potential Drinking Water Source Area. In addition, there are no private water supply wells within 500 feet of the release area the subject site has a groundwater classification of GW-2 pursuant to 310 CMR 40.0932 (4), (5)(d). According to the MA DEP GIS Map for the Northeast Region of Massachusetts, an nonforested



freshwater wetland is located approximately 1/4 mile to the southwest of the release site. The drainage stream situated within release area discharges to this wetland area.

Using a Method 2 Risk Characterization, the impacted soils in the stream bed at the release site are categorized as S-1 pursuant to 310 CMR 40.0933 (5), "A child's and an adult's frequency and intensity of use are considered to be high pursuant to 40.0933 (4) (b) and (c)". Impacted soils beneath the asphalt and concrete parking lot surface at the site are categorized as S-3 pursuant to 310 CMR 40.0933(7)(c), "the soil is isolated pursuant to 310 CMR 40.0933(4)(c)(3), regardless of any receptor's frequency or intensity of use".

The site is currently utilized as a power plant for an educational institution. As a result of location and zoning constraints, the reasonably foreseeable use of the site is likely similar to current usage; therefore it is assumed that any future activities would not result in exposures to human and/or environmental receptors that are greater than the exposures associated with current site activities and uses.

Pursuant to 310 CMR 40.0926, for each oil and/or hazardous material identified in each medium at each exposure point, Exposure Point Concentrations shall be identified and documented.

Representative composite soil samples were collected from both the maximum extent of the excavation area in stream bed (Base) on August 20, 1997, and from upstream of the impacted portion of the stream bed (Stream-2) on October 6, 1997. Each of these samples was submitted for EPH and PAH analyses. As summarized in Table 1, the Base sample exhibited a total EPH concentration of 494 ppm and, exhibited PAH concentrations which were all below the method limit of detection for the specified analysis. The C9-C18 and C19-C36 Aliphatic, and C10-C22 Aromatic concentrations (24 ppm, 290 ppm, and 180 ppm respectively) are well below the applicable MA DEP S-1 Cleanup Standards. Sample 'Stream-2' exhibited a total EPH concentration of 184 ppm and no PAHs. The C9-C18 and C19-C36 Aliphatic, and C10-C22 Aromatic concentrations (5 ppm, 97 ppm, and 82 ppm respectively) in this sample are also well below the applicable MA DEP S-1 Cleanup Standard, and are considered representative of background conditions for the stream bed soils.

While the EPH Aliphatic and Aromatic concentrations are not representative of background conditions at the site, they are all significantly less than the Reportable Concentration of category S-1 soils pursuant to 310 CMR 40.1600. As such, a condition of 'No Significant Risk' has been reestablished for the stream bed portion of the release site.

On October 6, 1997, representative composite soil samples were collected from the maximum extent of the excavation area beneath the asphalt and concrete driveway surface in the subject release area. (samples S1-B, S2-B, and S3-B). These samples were collected from a maximum depth of approximately three feet below grade at the base of the excavation, and were subsequently submitted for laboratory analysis of EPH and PAHs. As summarized in Table 3, sample S1-B exhibited a total EPH concentration of 26 ppm. All PAH concentrations in this sample were below the method limit of detection for the specified analysis. The C9-C18 and C19-C36 Aliphatic and C10-C22 Aromatic concentrations in this sample (Not Detected, 17 ppm, and 9 ppm respectively) are significantly less than the applicable MA DEP S-1 Cleanup Standards. Sample S2-B exhibited a total EPH concentration of 200 ppm. All PAH concentrations in this sample, with the exception of Fluoranthene (1 ppm) and Pyrene (1 ppm), were below the method limit of detection for the specified analysis. The C9-C18 and C19-C36 Aliphatic, and the C10-C22 Aromatic concentrations for this sample (3 ppm, 130 ppm, and 57 ppm respectively) are significantly less than the applicable S-1 Cleanup Standard. Sample S3-B exhibited a total EPH concentration of 157 ppm. The C9-C18 and C19-C36 Aliphatic and C10-C22 Aromatic concentrations for this sample (2 ppm, 57 ppm, and 98 ppm respectively) are significantly less than the applicable S-1 Cleanup Standards. This sample did, however, exhibit concentrations of several PAH parameters which exceed both the S-1 and S-3 Cleanup Standards and S-1 Reportable Concentrations: Benzo(a)anthracene (4 ppm), Benzo(a)pyrene (3 ppm), Benzo(b+k)fluoranthene (5 ppm), and Dibenzo(a,h)anthracene (3 ppm). Several other PAH parameters exhibited concentrations which were significantly less than the S-1 Cleanup Standard including Benzo(g,h,i)perylene (2 ppm), Chrysene (4 ppm), Fluoranthene (1 ppm), Phenanthrene (5 ppm), and Pyrene (8 ppm).

All PAH and EPH parameter concentrations, listed above, for the samples collected from the driveway excavation at the release site are considered representative of background conditions for the soil in this area based upon



documented evidence of historic #6 fuel oil releases at this site and field observations and measurements, as detailed herein.

Soil conditions at the site meet the established criteria for a Response Action Outcome without the implementation of an Activity and Use Limitation relative to the subject release. As a result of the excavation conducted beneath the impacted portion of the driveway surface, petroleum hydrocarbon impact relative to the August 19th release has been reduced to background conditions and a condition of 'No Significant Risk' has been reestablished for the subject release in this area.

The groundwater in the vicinity of the release site does not appear to have been impacted by the #6 fuel oil release. EPH levels in the soils approached background conditions at the maximum depth of the excavation in both the dry stream bed and beneath the driveway surface prior to encountering groundwater. As such, there is no evidence to suggest that groundwater has been impacted as a result of the subject release, and the Exposure Point Concentration for groundwater is expected to remain consistent with background conditions.

A Permanent Solution for the subject release at the site has been achieved, and as such, a condition of no significant risk of harm to health, public welfare and the environment has been achieved in accordance with 310 CMR 40.0973(7).

Class Description of the Response Action Outcome and Method Characterization:

This Response Action Outcome (RAO) is classified as A-2 in accordance with provisions stipulated in 310 CMR 40.1036 (2). The source of the release has been eliminated and remedial activities performed under an IRA have reduced the magnitude of impact to levels which establish a condition of 'No Significant Risk' at the release site.

Relationship to other RAO Statements and Activity and Use Limitations

No other Response Action Outcome Statements have been filed for this site and, since the S-1 soil standards have not been exceeded as a result of the subject release, an Activity and Use Limitation will not be required.

Demonstration that All Uncontrolled Sources Have Been Eliminated or Controlled:

The release was evaluated visually, by Photoionization, and by olfactory means in the release area. Due to the prompt response to contain the release and recover a significant amount of the released fuel oil which had pooled on the driveway and dry stream bed surfaces, the release was contained to an approximate 200 square foot area of the driveway surface, an approximate five square foot area of the concrete retaining wall and fill port pad and stairs, and an approximate forty square foot area of the dry stream bed surface.

No catch basins or storm drains were observed to be impacted by the subject release.

The impacted area of the dry stream bed was evaluated by visual and olfactory means. Field evidence confirmed that the impact to the stream bed was confined to an approximate forty square foot area and that the released fuel oil had not migrated downstream beyond the immediate release area. A puddle of standing water on the stream bed, present on the day of the release, located approximately fifty feet downstream of the release area, showed no oil sheen or evidence of impact by the subject release. Much of the oil in the impacted area of the stream bed had pooled among several large boulders and was subsequently evacuated by means of a vacuum truck. The subsequent excavation of approximately five cubic yards of soil from the impacted portion of the stream bed reduced EPH concentrations in the stream bed soil to levels which are significantly less than the applicable MA DEP S-1 Cleanup Standards. As such, a condition of 'no significant risk' was reestablished for the stream bed portion of the subject release site. A stream bed soil sample collected from an area upstream of the release area confirmed that background conditions for the stream bed soils was 184 ppm total EPH. This stream serves as a surface drainage basin, and receives runoff from many of the upgradient road and parking lot surfaces on the Fernald School campus.



As such, the background EPH levels in the stream bed soils is likely resultant of prolonged runoff from these upgradient surfaces and likely contribute to the EPH concentration measured in the release area.

Soil beneath the impacted area of the driveway surface at the site was first assessed for #6 oil impact relative to the subject release when it was observed that the concrete and asphalt surface in the release area was highly fractured and likely allowed for the vertical migration of oil product into this soil. Samples collected during this assessment exhibited concentrations of several PAH parameters which were in exceedance of the S-1 Cleanup Standards. As such, approximately ten cubic yards of impacted soil were subsequently excavated from this area. Two of the three samples collected upon completion of this excavation continued to exhibit elevated concentrations of these PAH parameters. All samples exhibited elevated EPH parameter concentrations. Field observations and documented historic evidence of additional #6 oil releases at the site indicate that these elevated EPH concentrations are not related to the subject release, and as such, are considered representative of background conditions at the release site. As a result of the excavation in this area, the soil beneath the driveway had been sufficient to reduce petroleum hydrocarbon concentrations in this soil resultant of the subject release to background conditions.

The maximum depth of the October 6th excavation beneath the driveway surface was approximately three feet. The area of the excavation was approximately 150 square feet and was performed directly beneath the portion of the concrete and asphalt surface which had been visibly stained by the subject release. From approximately one foot below grade to the maximum depth of the excavation in this area, there was no olfactory or Photoionization evidence of #6 oil impact. A ubiquitous layer of black-stained, dry, fine, ash-like, soil was present throughout the entire excavation area from directly beneath the concrete and asphalt to the maximum depth of the excavation. This layer did not appear to be concentrated specifically beneath the cracks in the concrete and asphalt surfaces, but was uniform in its texture and color in the entire excavation area. Upon completion of the excavation, it appeared that this material proceeded to the south and east beneath the unexcavated portions of the driveway surface. This soil material appeared to be highly weathered and exhibited no petroleum odors. When screened with a PID, this soil exhibited TOV levels below that which could be detected by the PID.

Mr. Maurice O'Connell, the plant superintendent at the Fernald School, informed CEA personnel that several releases of #6 fuel oil had occurred in the subject release area over the past thirty years. According to Mr. O'Connell, approximately 30 years ago, a release of over 100 gallons of #6 oil had occurred in the exact location where the August 19th release had occurred. Mr. O'Connell reported that the surficial impact resultant of this and several other smaller historic releases at the site had been remediated, but that no subsurface soil assessment or remediation had been performed beneath the driveway surface relative to these releases. In addition, Mr. O'Connell recalled that the concrete and asphalt driveway surface was also in nearly as poor a condition thirty years ago as in the present, and likely allowed for the migration of oil released in this location over the past thirty years to migrate beneath the driveway surface.

Samples S1-B, S2-B, and S3-B were all collected from an approximate depth of three feet below grade, upon completion of the excavation on October 6th. All of these samples exhibited no fuel oil odors, and exhibited TOV concentrations below that which could be detected by the PID. Upon laboratory analysis for EPH and PAH parameters, each of these three samples exhibited EPH Aliphatic and Aromatic concentrations at levels significantly less than the S-1 Cleanup Standards. Samples S2-B and S3-B also exhibited elevated levels of several PAH parameters. The levels of several PAH parameters in Sample-3B exceed both S-1 and S-3 Cleanup Standards.

These EPH and PAH concentrations are not believed to be associated with the subject August 19th #6 oil release. Visual evaluation of the soil material suggests that this soil was impacted by an historical release to a significantly greater extent than would be expected from what is likely less than five gallons of oil which seeped through cracks in the driveway surface during the subject release. The absence of fuel oil odors and TOV in this soil is not characteristic of recent (< 1 year) fuel oil impact, but suggests that nearly all volatile fuel oil constituents have dissipated over a longer period of time since initially being released to the soil. Heavier petroleum constituents, however, such as the EPH and PAH parameters detected in the subject soil samples would remain in the soil for longer periods of time, such that elevated levels of these parameters resultant of older releases at the site would be detected in current soil samples.



Sample S3-B, which exhibits the highest concentration of PAH and EPH parameters, was collected from the most upgradient portion of the excavation area, where there were relatively fewer cracks in the concrete and asphalt. A bulk of the fuel oil released to the driveway surface pooled in the driveway adjacent to the edge of the stairs leading up to the fill port pad in an area where the concrete was highly fractured. It is reasonable to expect that soil impact in this area would be greater at equivalent depths within the subsurface than in the location of sample S3-B.

Based on the evidence presented above, the existing concentrations of PAH and EPH parameters in the soil beneath the driveway surface should be considered representative of background conditions in this area, resultant of historic release condition(s) at the site. As such, excavation at the site on October 6, 1997 was sufficient to reduce petroleum impact in the soil beneath the driveway, relative to the subject release, to levels considered representative of background conditions, thus reestablishing a condition of 'no significant risk' at the site relative to the subject release.

The concentration of several PAH parameters detected in sample S3-B exceed MA DEP S-1 Reportable Concentrations, and as such constitute a reportable release condition at the site, not associated with the subject release.

It is the opinion of CEA that a permanent solution has been achieved for this release and that all uncontrolled sources of oil and/or hazardous materials related to this release have been eliminated via the response actions performed. It is further the opinion of CEA that the requirements of a Class A-2 RAO have been met.

Background Feasibility Investigation:

It is the opinion of CEA that the additional excavation which would be required to reduce the EPH levels in the soil in the impacted area of the stream bed to background levels is not feasible. Access to the impacted portion of the stream bed is extremely limited, as this area is located within a narrow (<10 width) gully contained by the the approximate eight foot high concrete retaining wall, and a steeply graded wooded slope. The maximum volume of soil which could be efficiently excavated by machine was done so on August 20th. Due to the high concentration of large boulders in the stream bed and relatively small volume of excavatable soil between these boulders, hand excavation of this soil material was determined to be neither a cost effective or feasible remediation option.

Based on the EPH results for the stream bed soils in this area, which are below the most stringent S-1 standards, the cost feasibility to remove the remaining impacted soils in this discreet area was prohibitive relative to the environmental gain by reducing EPH levels in this area to background conditions.

Residual soil impact at the site represents a condition of 'no significant risk'. Based on an evaluation of benefit-cost, it is not feasible to undertake additional activities which might achieve background conditions.

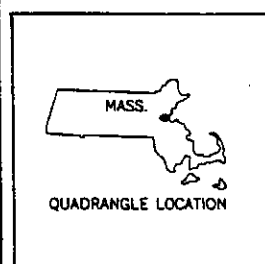
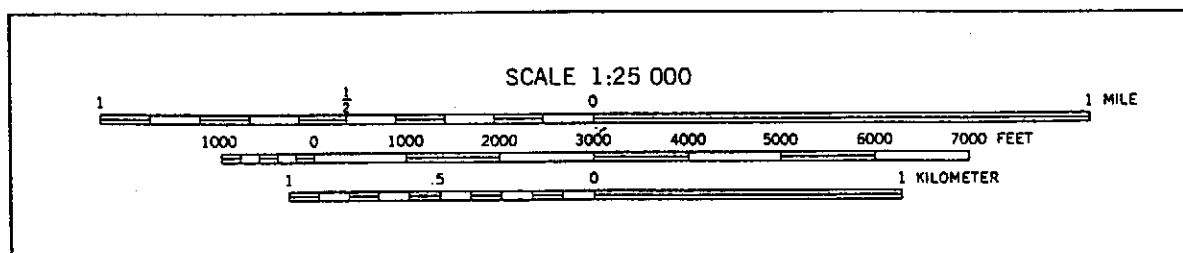
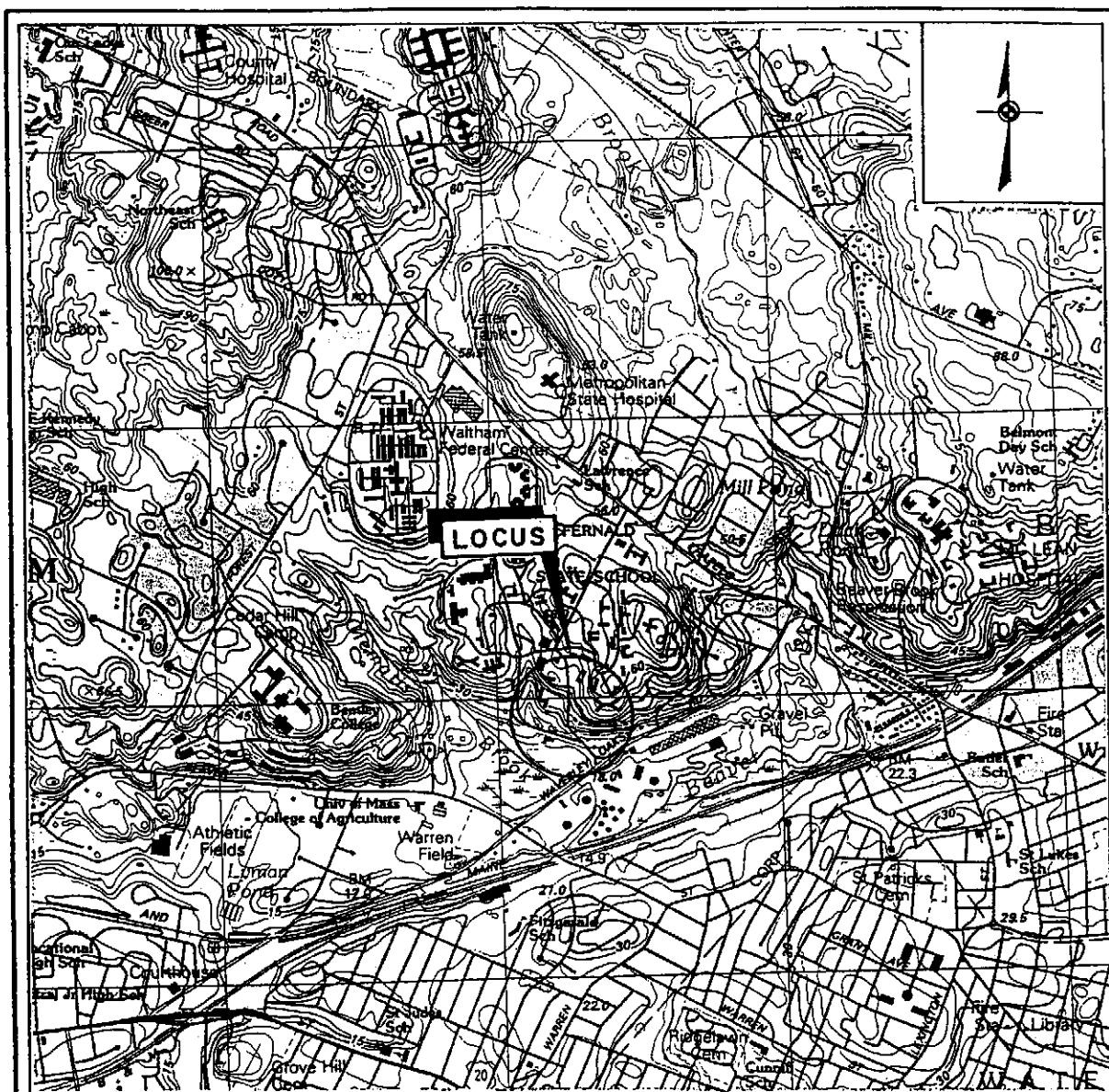
Public Notification:

Copies of letters submitted to the Chief Municipal Officer and the Board of Health for the City of Waltham are presented in Attachment 3.



Figure 1

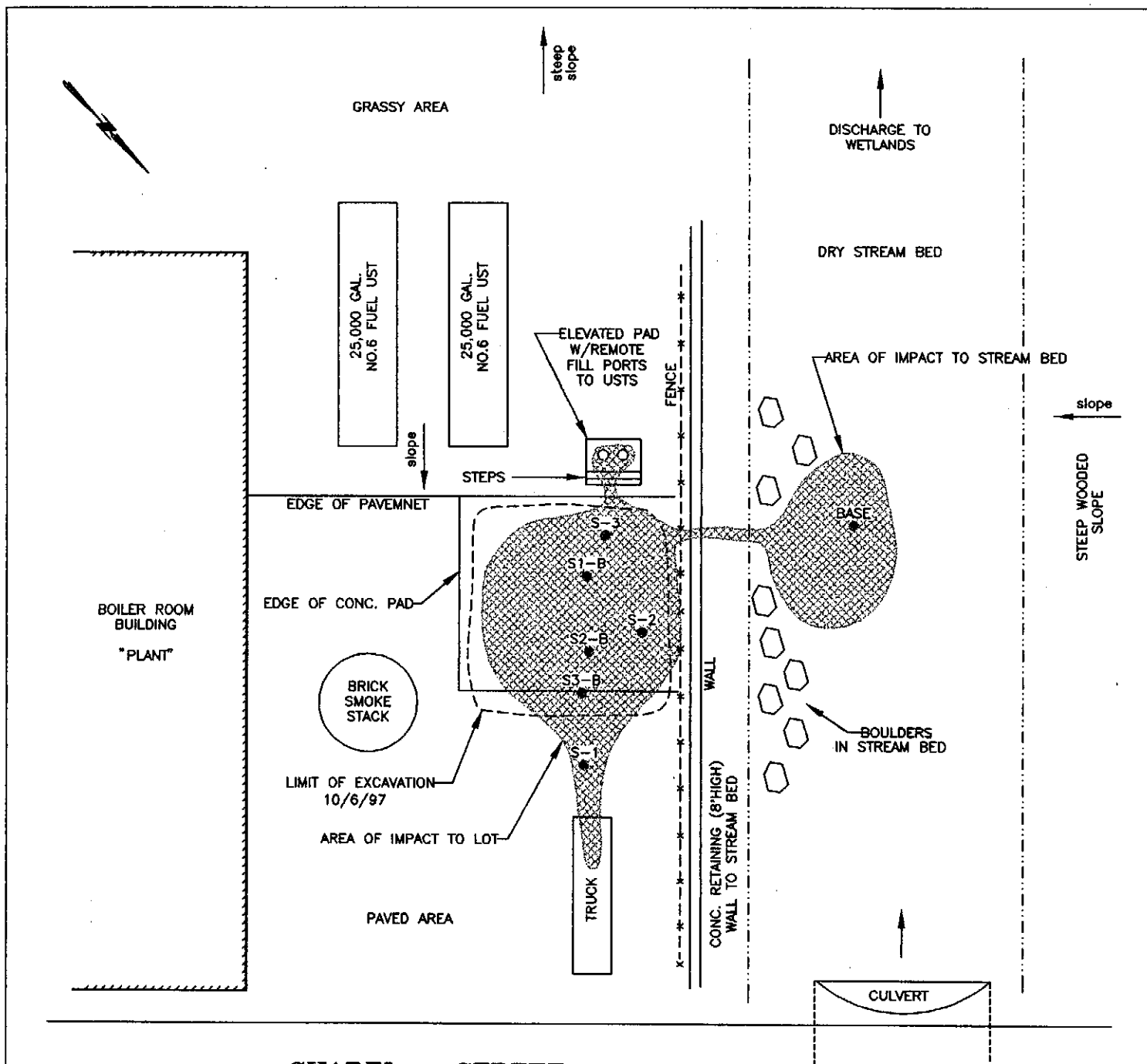
Site Locus



BOSTON NORTH, MASSACHUSETTS
42071-D1-TM-025
1985

FIGURE 1
SITE LOCUS





CHAPEL STREET

CEA CORPORATE ENVIRONMENTAL
ADVISORS, INC.

Assessments - Remediation - Emergency Response
127 HARTWELL ST. W.BOYLSTON, MA.

SCALE: NOT TO SCALE

DR. BY: K. HAZEL

DATE: 10/23/97

APP. BY: MEB

JOB NO.: 3404-97

SITE LAYOUT

T.S. TRUCK SERVICE
200 TRAPELO RD. FERNALD SCHOOL
WALTHAM, MA.

FIGURE-2

NOTE:
THIS PLAN IS COMPILED FROM RECORD PLANS
AND FIELD MEASUREMENTS FOR THE SOLE
PURPOSE OF REPRESENTING THE APPROXIMATE
LOCATION OF SITE FEATURES AND UTILITIES.

Figure 2

Site Layout

Attachment 1

Soil Analytical Results



HYDROSAMPLE Zecco, Inc.

Serving America's Environment

August 22, 1997

Mr. Mick Robertson
CEA - Corporate Environmental Advisors
127 Hartwell Street
W. Boylston, MA 01583

LABORATORY ANALYSIS REPORT
Waltham, MA

Dear Mick,

Enclosed are the results of analyses performed on samples received at HYDROSAMPLE Laboratory on 8/20/97. As specified by the chain of custody documentation, this project was processed for a rush turnaround time.

This letter authorizes the release of the attached analytical data and should be considered an integral part of your report. In order to facilitate a quick response should you require additional information or wish to discuss the results of these analyses in greater detail, please refer to **our case number 40891**.

Our entire staff wishes to take this opportunity to Thank You for choosing HYDROSAMPLE, the analytical laboratory department of Zecco Incorporated. We've taken pride in providing you with what we believe to be the best possible service, and we will do everything we can to assure your complete satisfaction. We look forward to serving you again during your next important project and invite you to take advantage of our technical knowledge and expertise, solid reputation for thoroughness, quality and timely turnaround.

Please call upon me whenever I can be of further assistance. Your trust and goodwill are among my most valued assets, and I look forward to hearing from you.

Sincerely,



Alan C Ford
HYDROSAMPLE Laboratory Manager
Zecco Incorporated

CHAIN OF CUSTODY FORM

Laboratory Services Workorder

ZECCO INC - Hydrosample Laboratory
 367 W Main Street · Northboro MA 01532 · (508) 393-2537

Report To: CEA, Inc.
127 Hartwell St.
W. Boylston, MA 01503
Nick Robertson

Report Due Date
48hrs 8/22
 Send Copy of Report To

Invoice To: CEA, Inc.

Phone 508-835-8822 FAX 508-835-8812

Purchase Order No.

Preservative Codes *

| Job Name: | | Client's Job No. | COLLECTED | | Grab or Composite | # of Containers Submitted |
|-----------------------------------|-----------------------|------------------------------------|-------------|----------------|-------------------|---------------------------|
| Site Location: <u>Waltham, MA</u> | | Laboratory Job No. <u>7LA00063</u> | MATRIX | DATE | | |
| # | HYDROSAMPLE ID NUMBER | SAMPLE IDENTIFICATION | MATRIX | DATE | TIME | |
| 1 | <u>Disp</u> | <u>* MEB</u> | <u>soil</u> | <u>8/20/97</u> | <u>AM</u> | <u>1</u> |
| 2 | <u>Base</u> | <u>40891</u> | <u>soil</u> | <u>8/20/97</u> | <u>AM</u> | <u>1</u> |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |
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| 11 | | | | | | |
| 12 | | | | | | |

| Relinquished By | | Received By | |
|-----------------------|------------------------|----------------|----------------------|
| Signature | Date | Signature | Date |
| <u>MARC E. BROCHU</u> | <u>8/20/97 3:15 pm</u> | <u>AC Ford</u> | <u>8/20/97 1:52Z</u> |
| <u>Nick Robertson</u> | | <u>Alundra</u> | |

Special Instructions/Comments
Full AMREC disposal parameters for stockpile sample
EPH for Base
Inefficient sample provided to praus
for disposal parameters

Preservative Codes *
 X = Unpreserved I = Isot H = HCl S = H₂SO₄ N = HNO₃ O = NaOH
 B =

HYDROSAMPLE Zecco Incorporated

367 West Main Street, Northboro MA 01532
Tel (508) 393-7222 • Fax (508) 393-3074

REPORT OF ANALYSIS

Job Name:
Client Job No:
Site Location: Waltham, MA
Sampled By: MEB

Date Received: 8/20/97
Lab Job No: 7LA0063
Lab Case No: 40891
Date Reported: 8/22/97

| TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH | | | | | | |
|--|--|-----------------------|-----------------|----------------------|---------------|--------------------------|
| Sample Number | Sample Identification | Sample Matrix | Date Collected | Analytical Technique | | |
| 40891 | Base | soil | 8/20/97 | GC | | |
| Line Number | List of Analytes | Result ⁽¹⁾ | Units (dry wt.) | Detection Limit | Date Analyzed | Method Reference |
| 1 | Total Solids | 77. | Percent | 1 | 8/21/97 | 160.3 ⁽²⁾ |
| 2 | C ₉ - C ₁₈ Aliphatics | 24,000. | µg/Kg | 5,000 | 8/22/97 | Draft 1.0 ⁽³⁾ |
| 3 | C ₁₉ - C ₃₆ Aliphatics | 290,000. | µg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |
| 4 | C ₁₀ - C ₂₂ Aromatics | 180,000. | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 5 | Total Extractable Petroleum Hydrocarbons | 494,000 | µg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |
| 6 | Acenaphthene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 7 | Acenaphthylene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 8 | Anthracene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 9 | Benzo(a)anthracene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 10 | Benzo(a)pyrene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 11 | Benzo(b)fluoranthene | BDL | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 12 | Benzo(g,h,i)perylene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 13 | Benzo(k)fluoranthene | BDL | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 14 | Chrysene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 15 | Dibenzo(a,h)anthracene | BDL | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 16 | Fluoranthene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 17 | Fluorene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 18 | Indeno(1,2,3-cd)pyrene | BDL | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 19 | Naphthalene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |

**HYDROSAMPLE
Zecco Incorporated**

367 West Main Street, Northboro MA 01532
Tel (508) 393-7222 • Fax (508) 393-3074

REPORT OF ANALYSIS

Job Name:
Client Job No:
Site Location: Waltham, MA
Sampled By: MEB

Date Received: 8/20/97
Lab Job No: 7LA0063
Lab Case No: 40891
Date Reported: 8/22/97

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH

| Sample Number | Sample Identification | | | Sample Matrix | Date Collected | Analytical Technique |
|---------------|-----------------------|-----------------------|-----------------|-----------------|----------------|--------------------------|
| 40891 | Base | | | soil | 8/20/97 | GC |
| Line Number | List of Analytes | Result ⁽¹⁾ | Units (dry wt.) | Detection Limit | Date Analyzed | Method Reference |
| 20 | Phenanthrene | BDL | μg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 21 | Pyrene | BDL | μg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 22 | 2-Methyl naphthalene | BDL | μg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |

⁽¹⁾ BDL - Below Detection Limit

⁽²⁾ Methods for Chemical Analysis of Water and Wastes, USEPA, 600/4-79-020.

⁽³⁾ Method for the determination of Extractable Petroleum Hydrocarbons (EPH,) Draft 1.0, Mass. Department of Environmental Protection, 1995.

HYDROSAMPLE Zecco, Inc.

Serving America's Environment

September 2, 1997

Mr. Mik Robertson
CEA - Corporate Environmental Advisors
127 Hartwell Street
W. Boylston, MA 01583

LABORATORY ANALYSIS REPORT

Ferrald School - Waltham MA

Dear Mik,

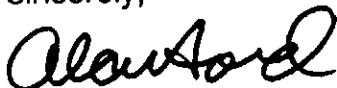
Enclosed are the results of analyses performed on samples received at HYDROSAMPLE Laboratory on 8/22/97. As specified by the chain of custody documentation, this project was processed for a standard turnaround time.

This letter authorizes the release of the attached analytical data and should be considered an integral part of your report. In order to facilitate a quick response should you require additional information or wish to discuss the results of these analyses in greater detail, please refer to **our case number 40927**.

Our entire staff wishes to take this opportunity to Thank You for choosing HYDROSAMPLE, the analytical laboratory department of Zecco Incorporated. We've taken pride in providing you with what we believe to be the best possible service, and we will do everything we can to assure your complete satisfaction. We look forward to serving you again during your next important project and invite you to take advantage of our technical knowledge and expertise, solid reputation for thoroughness, quality and timely turnaround.

Please call upon me whenever I can be of further assistance. Your trust and goodwill are among my most valued assets, and I look forward to hearing from you.

Sincerely,



Alan C Ford
HYDROSAMPLE Laboratory Manager
Zecco Incorporated

c: Dave Zalewski, Zecco Inc.

Report To: CETA INC
127 Hartwell St
West Boylston MA 01583
ATTN: MKK

Report Due Date

Invoice To: ZECCO

Send Copy of Report To

Phone (508) 835-8822 FAX 835-8812

D. Zalewski, ZECCO · Purchase Order No.

Preservative Codes *

| | | | | | | |
|--|-----------------------|---------------------------------|-------------------|-------------|--|--|
| Job Name: <u>Fernald School</u> | | Client's Job No. <u>3404-97</u> | Grab or Composite | | TPH # <u>8108</u> H ₂ O # <u>12</u> | |
| Site Location: <u>Trapelo Rd. Waltham MA</u> | | Laboratory Job No. | | | | |
| Collected By: <u>M. Brochu</u> | SAMPLE IDENTIFICATION | | MATRIX | DATE | TIME | |
| # | HYDROSAMPLE ID NUMBER | | | | | |
| 1 | <u>40927</u> | <u>stockpile</u> | <u>Sol</u> | <u>8/20</u> | | |
| 2 | <u>40928</u> | <u>S-1</u> | <u>Sol</u> | <u>8/20</u> | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |
| 7 | | | | | | |
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| 12 | | | | | | |

| | | | | | |
|---|------------------------|----------------------|--|------------------------|-----------------------|
| Relinquished By <u>M. Robertson</u> Signature | Date <u>8/21</u> | Time <u>430pm</u> | Received By <u>Edward Gordon</u> Signature | Date <u>8/21/97</u> | Time <u>42pm</u> |
| Received By <u>Edward Gordon</u> Signature | Date <u>8/21/97</u> | Time <u>42pm</u> | Received by Hydrosample <u>Gordon Corp</u> Signature | Date <u>8/22/97</u> | Time <u>8:45pm</u> |

Special Instructions/Comments

Composit stockpile samples
for 1 TPH ANALYSIS.

HYDROSAMPLE Zecco Incorporated

367 West Main Street, Northboro MA 01532
Tel (508) 393-7222 • Fax (508) 393-3074

REPORT OF ANALYSIS

Job Name: Ferrald School
Client Job No: 3404-97
Site Location: Trapelo Rd., Waltham MA
Sampled By: M. Brochu

Date Received: 8/22/97
Lab Job No: 7LA0063
Lab Case No: 40927
Date Reported: 9/2/97

| HYDROCARBON SCAN | | | | | | |
|------------------|-----------------------|-----------------------|-----------------------------|-----------------|----------------------|---------------------------------|
| Sample Number | Sample Identification | Sample Matrix | Date Collected | Date Extracted | Analytical Technique | |
| 40927 | Stockpile | soil | 8/20 | 8/25/97 | GC | |
| Line Number | Compounds Analyzed | Result ⁽¹⁾ | Units Dry wt ⁽³⁾ | Detection Limit | Date Analyzed | Method Reference ⁽²⁾ |
| 1 | Total Solids | 83. | Percent | 0.10 | 8/25/97 | 2540B |
| 2 | Mineral Spirits | BDL | mg/Kg | 1000. | 8/27/97 | 8100M |
| 3 | Gasoline | BDL | mg/Kg | 1000. | listed above | 8100M |
| 4 | Fuel Oil #2/Diesel | BDL | mg/Kg | 1000. | listed above | 8100M |
| 5 | Fuel Oil #4 | BDL | mg/Kg | 1000. | listed above | 8100M |
| 6 | Fuel Oil #6 | BDL | mg/Kg | 1000. | listed above | 8100M |
| 7 | Motor Oil | 19,000. | mg/Kg | 1000. | listed above | 8100M |
| 8 | Kerosene | BDL | mg/Kg | 1000. | listed above | 8100M |
| 9 | Transformer Oil | BDL | mg/Kg | 1000. | listed above | 8100M |

⁽¹⁾ BDL - Below Detection Limit

⁽²⁾ Test Methods for Evaluating Solid Waste, USEPA, SW-846; Standard Methods for the Examination of Water & Wastewater, APHA.

⁽³⁾ Results have been corrected for moisture content and are reported on the dry weight basis.

HYDROSAMPLE Zecco Incorporated

367 West Main Street, Northboro MA 01532
Tel (508) 393-7222 • Fax (508) 393-3074

REPORT OF ANALYSIS

Job Name: Ferrald School
Client Job No: 3404-97
Site Location: Trapelo Rd., Waltham MA
Sampled By: M. Brochu

Date Received: 8/22/97
Lab Job No: 7LA0063
Lab Case No: 40927
Date Reported: 9/2/97

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH

| Sample Number | Sample Identification | Sample Matrix | Date Collected | Analytical Technique |
|---------------|-----------------------|---------------|----------------|----------------------|
| 40928 | S-1 | soil | 8/20 | GC |

| Line Number | List of Analytes | Result ⁽¹⁾ | Units (dry wt.) | Detection Limit | Date Analyzed | Method Reference |
|-------------|--|-----------------------|-----------------|-----------------|---------------|--------------------------|
| 1 | Total Solids | 95. | Percent | 1 | 8/25/97 | 160.3 ⁽²⁾ |
| 2 | C ₉ - C ₁₈ Aliphatics | 90,800. | μg/Kg | 5,000 | 8/28/97 | Draft 1.0 ⁽³⁾ |
| 3 | C ₁₉ - C ₃₆ Aliphatics | 289,000. | μg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |
| 4 | C ₁₀ - C ₂₂ Aromatics | 185,000. | μg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |
| 5 | Total Extractable Petroleum Hydrocarbons | 565,000. | μg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |

⁽¹⁾ BDL - Below Detection Limit

⁽²⁾ Methods for Chemical Analysis of Water and Wastes, USEPA, 600/4-79-020.

⁽³⁾ Method for the determination of Extractable Petroleum Hydrocarbons (EPH,) Draft 1.0, Mass. Department of Environmental Protection, 1995.

HYDROSAMPLE Zecco, Inc.

Serving America's Environment

September 4, 1997

Mr. Marc Brochu
CEA - Corporate Environmental Advisors
127 Hartwell Street
W. Boylston, MA 01583

LABORATORY ANALYSIS REPORT Fernald School

Dear Marc,

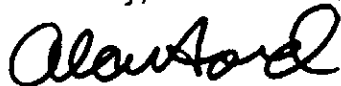
Enclosed are the results of analyses performed on samples received at HYDROSAMPLE Laboratory on 8/26/97. As specified by the chain of custody documentation, this project was processed for a standard turnaround time.

This letter authorizes the release of the attached analytical data and should be considered an integral part of your report. In order to facilitate a quick response should you require additional information or wish to discuss the results of these analyses in greater detail, please refer to **our case number 41007**.

Our entire staff wishes to take this opportunity to Thank You for choosing HYDROSAMPLE, the analytical laboratory department of Zecco Incorporated. We've taken pride in providing you with what we believe to be the best possible service, and we will do everything we can to assure your complete satisfaction. We look forward to serving you again during your next important project and invite you to take advantage of our technical knowledge and expertise, solid reputation for thoroughness, quality and timely turnaround.

Please call upon me whenever I can be of further assistance. Your trust and goodwill are among my most valued assets, and I look forward to hearing from you.

Sincerely,



Alan C Ford
HYDROSAMPLE Laboratory Manager
Zecco Incorporated

CHAIN OF CUSTODY FORM

Laboratory Services Workorder

367 W Main Street • Northboro MA 01532 • (508) 393-2537

Invoice To: CEA, Inc.

Report Due Date

127 Hartwell St.

W. Baylston, MA 01583

Marc Brochu

9/5/97

Send Copy of Report To

Phone 500-935-9822 FAX 500-835-8812

Purchase Order No.

Primer Number Codes:

| Job Name: Fernald School | | Client's Job No. 3404-97-1 | | I | |
|----------------------------|-----------------------|----------------------------|--------|-------------------|----------------|
| Site Location: Waltham, MA | | Laboratory Job No. 7LA0006 | | FPH | |
| Collected By: P.O. | | | | Grab or Composite | |
| # | HYDROSAMPLE ID NUMBER | SAMPLE IDENTIFICATION | MATRIX | DATE | COLLECTED TIME |
| 1 | 41007 | S-1 | soil | 8/25 | PM |
| 2 | 41008 | S-2 | soil | 8/25 | PM |
| 3 | 41009 | S-3 | soil | 8/25 | PM |
| 4 | | | | | |
| 5 | | | | | |
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| Relinquished By | | Received By | | Special Instructions/Comments | |
|------------------|-----------------|--------------|--------------|-------------------------------|--|
| Signature | Date Time | Signature | Date Time | | |
| MARC E. BRACHU | 8/26/77 4:30 PM | WOODEN (WIP) | 8/26/77 4:52 | EPH for all samples | |
| Marc E. Brachu | | WOODEN (WIP) | | | |
| Edward G. Gordon | | WOODEN (WIP) | | | |
| Edward G. Gordon | 8/26/77 1:00 | WOODEN (WIP) | | | |

| Sample | Albino | FedEx | UPS | USMail |
|--------|--------|-------|-----|--------|
| Sample | | | | |

Sheet # / of

Preservative Codes

X = Unpreserved I = load
 T = Na₂S₂O₃ A = B
 H = HCl S = H₂SO₄
 N = HNO₃ O = NaOH

HYDROSAMPLE Zecco Incorporated

367 West Main Street, Northboro MA 01532
Tel (508) 393-7222 • Fax (508) 393-3074

REPORT OF ANALYSIS

Job Name: Fernald School
Client Job No: 3404-97-1
Site Location: Waltham, MA
Sampled By: P.O.

Date Received: 8/26/97
Lab Job No: 7LA0063
Lab Case No: 41007
Date Reported: 9/4/97

| TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH | | | | | | |
|--|--|-----------------------|-----------------|-----------------|----------------|--------------------------|
| Sample Number | Sample Identification | | | Sample Matrix | Date Collected | Analytical Technique |
| 41007 | S-1 | | | soil | 8/25 | GC |
| Line Number | List of Analytes | Result ⁽¹⁾ | Units (dry wt.) | Detection Limit | Date Analyzed | Method Reference |
| 1 | Total Solids | 94. | Percent | 1.0 | 8/28/97 | 160.3 ⁽²⁾ |
| 2 | C ₉ - C ₁₈ Aliphatics | 14,000. | µg/Kg | 5,000 | 9/2/97 | Draft 1.0 ⁽³⁾ |
| 3 | C ₁₉ - C ₃₆ Aliphatics | 69,500. | µg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |
| 4 | C ₁₀ - C ₂₂ Aromatics | 123,000. | µg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |
| 5 | Total Extractable Petroleum Hydrocarbons | 206,000. | µg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |
| 6 | Acenaphthene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 7 | Acenaphthylene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 8 | Anthracene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 9 | Benzo(a)anthracene | 2,070. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 10 | Benzo(a)pyrene | 2,870. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 11 | Benzo(b)fluoranthene | 4,710. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 12 | Benzo(g,h,i)perylene | 2,400. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 13 | Benzo(k)fluoranthene | 1,130. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 14 | Chrysene | 1,810. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 15 | Dibenzo(a,h)anthracene | 2,540. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 16 | Fluoranthene | 1,310. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 17 | Fluorene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 18 | Indeno(1,2,3-cd)pyrene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 19 | Naphthalene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |

HYDROSAMPLE

HYDROSAMPLE Zecco Incorporated

367 West Main Street, Northboro MA 01532
Tel (508) 393-7222 • Fax (508) 393-3074

REPORT OF ANALYSIS

Job Name: Fernald School
Client Job No: 3404-97-1
Site Location: Waltham, MA
Sampled By: P.O.

Date Received: 8/26/97
Lab Job No: 7LA0063
Lab Case No: 41007
Date Reported: 9/4/97

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH

| Sample Number | Sample Identification | | | | Sample Matrix | Date Collected | Analytical Technique |
|---------------|-----------------------|-----------------------|-----------------|-----------------|---------------|--------------------------|----------------------|
| 41007 | S-1 | | | | soil | 8/25 | GC |
| Line Number | List of Analytes | Result ⁽¹⁾ | Units (dry wt.) | Detection Limit | Date Analyzed | Method Reference | |
| 20 | Phenanthrene | BDL | µ g/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ | |
| 21 | Pyrene | 1,860. | µ g/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ | |
| 22 | 2-Methyl naphthalene | BDL | µ g/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ | |

⁽¹⁾ BDL - Below Detection Limit

⁽²⁾ Methods for Chemical Analysis of Water and Wastes, USEPA, 600/4-79-020.

⁽³⁾ Method for the determination of Extractable Petroleum Hydrocarbons (EPH,) Draft 1.0, Mass. Department of Environmental Protection, 1995.

HYDROSAMPLE Zecco Incorporated

367 West Main Street, Northboro MA 01532
Tel (508) 393-7222 • Fax (508) 393-3074

REPORT OF ANALYSIS

Job Name: Fernald School
Client Job No: 3404-97-1
Site Location: Waltham, MA
Sampled By: P.O.

Date Received: 8/26/97
Lab Job No: 7LA0063
Lab Case No: 41007
Date Reported: 9/4/97

| TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH | | | | | | |
|--|--|-----------------------|-----------------|-----------------|----------------|--------------------------|
| Sample Number | Sample Identification | | | Sample Matrix | Date Collected | Analytical Technique |
| 41008 | S-2 | | | soil | 8/25 | GC |
| Line Number | List of Analytes | Result ⁽¹⁾ | Units (dry wt.) | Detection Limit | Date Analyzed | Method Reference |
| 1 | Total Solids | 95. | Percent | 1.0 | 8/28/97 | 160.3 ⁽²⁾ |
| 2 | C ₉ - C ₁₈ Aliphatics | 19,800. | µg/Kg | 5,000 | 9/2/97 | Draft 1.0 ⁽³⁾ |
| 3 | C ₁₉ - C ₃₆ Aliphatics | 75,700. | µg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |
| 4 | C ₁₀ - C ₂₂ Aromatics | 62,500. | µg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |
| 5 | Total Extractable Petroleum Hydrocarbons | 1,580,000. | µg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |
| 6 | Acenaphthene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 7 | Acenaphthylene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 8 | Anthracene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 9 | Benzo(a)anthracene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 10 | Benzo(a)pyrene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 11 | Benzo(b)fluoranthene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 12 | Benzo(g,h,i)perylene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 13 | Benzo(k)fluoranthene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 14 | Chrysene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 15 | Dibenzo(a,h)anthracene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 16 | Fluoranthene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 17 | Fluorene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 18 | Indeno(1,2,3-cd)pyrene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 19 | Naphthalene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |

HYDROSAMPLE

HYDROSAMPLE Zecco Incorporated

367 West Main Street, Northboro MA 01532
Tel (508) 393-7222 • Fax (508) 393-3074

REPORT OF ANALYSIS

Job Name: Fernald School
Client Job No: 3404-97-1
Site Location: Waltham, MA
Sampled By: P.O.

Date Received: 8/26/97
Lab Job No: 7LA0063
Lab Case No: 41007
Date Reported: 9/4/97

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH

| Sample Number | Sample Identification | | | Sample Matrix | Date Collected | Analytical Technique |
|---------------|-----------------------|-----------------------|-----------------|-----------------|----------------|--------------------------|
| 41008 | S-2 | | | soil | 8/25 | GC |
| Line Number | List of Analytes | Result ⁽¹⁾ | Units (dry wt.) | Detection Limit | Date Analyzed | Method Reference |
| 20 | Phenanthrene | BDL | μg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 21 | Pyrene | BDL | μg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 22 | 2-Methyl naphthalene | BDL | μg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |

⁽¹⁾ BDL - Below Detection Limit

⁽²⁾ Methods for Chemical Analysis of Water and Wastes, USEPA, 600/4-79-020.

⁽³⁾ Method for the determination of Extractable Petroleum Hydrocarbons (EPH,) Draft 1.0, Mass. Department of Environmental Protection, 1995.

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REPORT OF ANALYSIS

Job Name: Fernald School
Client Job No: 3404-97-1
Site Location: Waltham, MA
Sampled By: P.O.

Date Received: 8/26/97
Lab Job No: 7LA0063
Lab Case No: 41007
Date Reported: 9/4/97

| TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH | | | | | | |
|--|--|-----------------------|-----------------|-----------------|----------------|--------------------------|
| Sample Number | Sample Identification | | | Sample Matrix | Date Collected | Analytical Technique |
| 41009 | S-3 | | | soil | 8/25 | GC |
| Line Number | List of Analytes | Result ⁽¹⁾ | Units (dry wt.) | Detection Limit | Date Analyzed | Method Reference |
| 1 | Total Solids | 89. | Percent | 1 | 8/28/97 | 160.3 ⁽²⁾ |
| 2 | C ₉ - C ₁₈ Aliphatics | 65,600. | µg/Kg | 5,000 | 9/2/97 | Draft 1.0 ⁽³⁾ |
| 3 | C ₁₉ - C ₃₆ Aliphatics | 113,000. | µg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |
| 4 | C ₁₀ - C ₂₂ Aromatics | 103,000. | µg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |
| 5 | Total Extractable Petroleum Hydrocarbons | 282,000. | µg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |
| 6 | Acenaphthene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 7 | Acenaphthylene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 8 | Anthracene | 1,090. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 9 | Benzo(a)anthracene | 2,260. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 10 | Benzo(a)pyrene | 1,760. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 11 | Benzo(b)fluoranthene | 3,030. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 12 | Benzo(g,h,i)perylene | 1,110. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 13 | Benzo(k)fluoranthene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 14 | Chrysene | 2,490. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 15 | Dibenzo(a,h)anthracene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 16 | Fluoranthene | 5,570. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 17 | Fluorene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 18 | Indeno(1,2,3-cd)pyrene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 19 | Naphthalene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |

HYDROSAMPLE Zecco Incorporated

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REPORT OF ANALYSIS

Job Name: Fernald School
Client Job No: 3404-97-1
Site Location: Waltham, MA
Sampled By: P.O.

Date Received: 8/26/97
Lab Job No: 7LA0063
Lab Case No: 41007
Date Reported: 9/4/97

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH

| Sample Number | Sample Identification | | | Sample Matrix | Date Collected | Analytical Technique |
|---------------|-----------------------|-----------------------|-----------------|-----------------|----------------|--------------------------|
| 41009 | S-3 | | | soil | 8/25 | GC |
| Line Number | List of Analytes | Result ⁽¹⁾ | Units (dry wt.) | Detection Limit | Date Analyzed | Method Reference |
| 20 | Phenanthrene | 4,990. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 21 | Pyrene | 5,560. | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |
| 22 | 2-Methyl naphthalene | BDL | µg/Kg | 700 | listed above | Draft 1.0 ⁽³⁾ |

⁽¹⁾ BDL - Below Detection Limit

⁽²⁾ Methods for Chemical Analysis of Water and Wastes, USEPA, 600/4-79-020.

⁽³⁾ Method for the determination of Extractable Petroleum Hydrocarbons (EPH), Draft 1.0, Mass. Department of Environmental Protection, 1995.

HYDROSAMPLE Zecco, Inc.

Serving America's Environment

October 10, 1997

Mr. Mark Brochu
CEA - Corporate Environmental Advisors
127 Hartwell Street
W. Boylston, MA 01583

LABORATORY ANALYSIS REPORT
Fernald School - Waltham MA

Dear Mark,

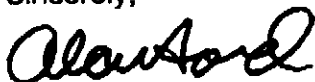
Enclosed are the results of analyses performed on samples received at HYDROSAMPLE Laboratory on 10/7/97. As specified by the chain of custody documentation, this project was processed for a rush turnaround time.

This letter authorizes the release of the attached analytical data and should be considered an integral part of your report. In order to facilitate a quick response should you require additional information or wish to discuss the results of these analyses in greater detail, please refer to our case number 41436.

Our entire staff wishes to take this opportunity to Thank You for choosing HYDROSAMPLE, the analytical laboratory department of Zecco Incorporated. We've taken pride in providing you with what we believe to be the best possible service, and we will do everything we can to assure your complete satisfaction. We look forward to serving you again during your next important project and invite you to take advantage of our technical knowledge and expertise, solid reputation for thoroughness, quality and timely turnaround.

Please call upon me whenever I can be of further assistance. Your trust and goodwill are among my most valued assets, and I look forward to hearing from you.

Sincerely,



Alan C Ford
HYDROSAMPLE Laboratory Manager
Zecco Incorporated

CHAIN OF CUSTODY FORM

Laboratory Services Workorder

ZECCO INC - Hydrosample Laboratory
367 W Main Street · Northboro MA 01532 · (508) 393-2537

Report To: CEA, Inc.
127 Hartwell St.
W. Boylston, MA
Marc Brochu
Phone 508-835-8822 FAX 508-835-8812

Report Due Date

Oct 10, 1997
Friday

Invoice To:

CEA, Inc.

Send Copy of Report To

Purchase Order No.

3404-97-1

Accession Code

| Job Name: <u>Fernald School</u> | | Client's Job No. <u>3404-97-1</u> | Collected By: <u>MEB</u> | | Lab. Job No. | | Collected | | Date | Time | Matrix | Sample Identification | Hydrosample ID Number | # |
|-----------------------------------|-------|-----------------------------------|--------------------------|--------------|--------------|-----------|-----------|--|---------|------|--------|-----------------------|-----------------------|---|
| Site Location: <u>Waltham, MA</u> | | Collected By: <u>MEB</u> | | Lab. Job No. | | Collected | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| 1 | 41436 | S-1B | | | | | | | 10/6/97 | PM | Soil | | | |
| 2 | 41437 | S-2B | | | | | | | 10/6/97 | PM | Soil | | | |
| 3 | 41438 | S-3B | | | | | | | 10/6/97 | PM | Soil | | | |
| 4 | 41439 | STREAM 2 | | | | | | | 10/6/97 | PM | Soil | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | |

| Received By | | Date | Time | Signature | |
|-------------------------|--|---------|--------|--------------------|--|
| MARCE BROCHU | | 10/7/97 | 3:55pm | <i>[Signature]</i> | |
| Received by Hydrosample | | 10/7/97 | 4:36pm | <i>[Signature]</i> | |
| Signature | | 10/7/97 | 4:36pm | <i>[Signature]</i> | |

Special Instructions/Comments: All Samples submitted for EPH analysis
Need results by Friday 10/10

Preservative Codes: X = Unpreserved I = Isot H = HCl S = H₂SO₄ N = HNO₃ O = NaOH
T = Na₂SO₄ A =

Sheet # 1 of 1

HYDROSAMPLE Zecco Incorporated

367 West Main Street, Northboro MA 01532
Tel (508) 393-7222 • Fax (508) 393-3074

REPORT OF ANALYSIS

Job Name: Fernald School
Client Job No: 3404-97-1
Site Location: Waltham, MA
Sampled By: MEB

Date Received: 10/7/97
Lab Job No: 7LA0063
Lab Case No: 41436
Date Reported: 10/10/97

| TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH | | | | | | | |
|--|--|---------------|-----------------|----------------------|---------------|--------------------------|--|
| Sample Number | Sample Identification | Sample Matrix | Date Collected | Analytical Technique | | | |
| 41436 | S-1B | soil | 10/8/97 | GC | | | |
| Line Number | List of Analytes | Result (1) | Units (dry wt.) | Detection Limit | Date Analyzed | Method Reference | |
| 1 | Total Solids | 87. | Percent | 1 | 10/10/97 | 160.3 ⁽²⁾ | |
| 2 | C ₉ - C ₁₈ Aliphatics | BDL | µg/Kg | 1,000 | 10/9/97 | Draft 1.0 ⁽³⁾ | |
| 3 | C ₁₉ - C ₃₈ Aliphatics | 17,000. | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 4 | C ₁₀ - C ₂₂ Aromatics | 9,000. | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 5 | Total Extractable Petroleum Hydrocarbons | 26,000 | µg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 6 | Acenaphthene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 7 | Acenaphthylene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 8 | Anthracene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 9 | Benzo(a)anthracene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 10 | Benzo(a)pyrene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 11 | Benzo(b)fluoranthene | BDL | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 12 | Benzo(g,h,i)perylene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 13 | Benzo(k)fluoranthene | BDL | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 14 | Chrysene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽²⁾ | |
| 15 | Dibenzo(a,h)anthracene | BDL | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 16 | Fluoranthene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 17 | Fluorene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 18 | Indeno(1,2,3-cd)pyrene | BDL | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 19 | Naphthalene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |

HYDROSAMPLE

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367 West Main Street, Northboro MA 01532
Tel (508) 393-7222 • Fax (508) 393-3074

REPORT OF ANALYSIS

Job Name: Fernald School
Client Job No: 3404-97-1
Site Location: Waltham, MA
Sampled By: MEB

Date Received: 10/7/97
Lab Job No: 7LA0063
Lab Case No: 41436
Date Reported: 10/10/97

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH

| Sample Number | Sample Identification | | | Sample Matrix | Date Collected | Analytical Technique |
|---------------|-----------------------|------------|----------------|-----------------|----------------|--------------------------|
| 41436 | S-1B | | | soil | 10/6/97 | GC |
| Line Number | List of Analytes | Result (1) | Units (dry wt) | Detection Limit | Date Analyzed | Method Reference |
| 20 | Phenanthrene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 21 | Pyrene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 22 | 2-Methyl naphthalene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |

(1) BDL - Below Detection Limit

(2) Methods for Chemical Analysis of Water and Wastes, USEPA, 800/4-79-020.

(3) Method for the determination of Extractable Petroleum Hydrocarbons (EPH,) Draft 1.0, Mass. Department of Environmental Protection, 1995.

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REPORT OF ANALYSIS

Job Name: Fernald School
Client Job No: 3404-97-1
Site Location: Waltham, MA
Sampled By: MEB

Date Received: 10/7/97
Lab Job No: 7LA0063
Lab Case No: 41436
Date Reported: 10/10/97

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH

| Sample Number | Sample Identification | Sample Matrix | Date Collected | Analytical Technique | | |
|---------------|--|---------------|-----------------|----------------------|---------------|--------------------------|
| 41437 | S-2B | soil | 10/6/97 | GC | | |
| Line Number | List of Analytes | Result (1) | Units (dry wt.) | Detection Limit | Date Analyzed | Method Reference |
| 1 | Total Solids | 85. | Percent | 1 | 10/10/97 | 160.3 ⁽²⁾ |
| 2 | C ₉ - C ₁₈ Aliphatics | 3,000. | μg/Kg | 2,000 | 10/9/97 | Draft 1.0 ⁽³⁾ |
| 3 | C ₁₉ - C ₃₆ Aliphatics | 130,000. | μg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 4 | C ₁₀ - C ₂₂ Aromatics | 67,000. | μg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 5 | Total Extractable Petroleum Hydrocarbons | 200,000 | μg/Kg | 6,000 | listed above | Draft 1.0 ⁽³⁾ |
| 6 | Acenaphthene | BDL | μg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 7 | Acenaphthylene | BDL | μg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 8 | Anthracene | BDL | μg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 9 | Benzo(a)anthracene | BDL | μg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 10 | Benzo(a)pyrene | BDL | μg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 11 | Benzo(b)fluoranthene | BDL | μg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 12 | Benzo(g,h,i)perylene | BDL | μg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 13 | Benzo(k)fluoranthene | BDL | μg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 14 | Chrysene | BDL | μg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 15 | Dibenzo(a,h)anthracene | BDL | μg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 16 | Fluoranthene | 1,000. | μg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 17 | Fluorene | BDL | μg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 18 | Indeno(1,2,3-cd)pyrene | BDL | μg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 19 | Naphthalene | BDL | μg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |

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REPORT OF ANALYSIS

Job Name: Fernald School
Client Job No: 3404-97-1
Site Location: Waltham, MA
Sampled By: MEB

Date Received: 10/7/97
Lab Job No: 7LA0063
Lab Case No: 41436
Date Reported: 10/10/97

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH

| Sample Number | Sample Identification | | | | Sample Matrix | Date Collected | Analytical Technique |
|---------------|-----------------------|-----------------------|----------------|-----------------|---------------|--------------------------|----------------------|
| 41437 | S-2B | | | | soil | 10/8/97 | GC |
| Line Number | List of Analytes | Result ⁽¹⁾ | Units (dry wt) | Detection Limit | Date Analyzed | Method Reference | |
| 20 | Phenanthrene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 21 | Pyrene | 1,000 | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 22 | 2-Methyl naphthalene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |

(1) BDL - Below Detection Limit

(2) Methods for Chemical Analysis of Water and Wastes, USEPA, 600/4-79-020.

(3) Method for the determination of Extractable Petroleum Hydrocarbons (EPH), Draft 1.0, Mass. Department of Environmental Protection, 1995.

HYDROSAMPLE

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367 West Main Street, Northboro MA 01532
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REPORT OF ANALYSIS

Job Name: Fernald School
Client Job No: 3404-97-1
Site Location: Waltham, MA
Sampled By: MEB

Date Received: 10/7/97
Lab Job No: 7LA0063
Lab Case No: 41436
Date Reported: 10/10/97

| TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH | | | | | | | |
|--|--|---------------|----------------|----------------------|---------------|--------------------------|--|
| Sample Number | Sample Identification | Sample Matrix | Date Collected | Analytical Technique | | | |
| 41438 | S-3B | soil | 10/6/97 | GC | | | |
| Line Number | List of Analytes | Result (1) | Units (dry wt) | Detection Limit | Date Analyzed | Method Reference | |
| 1 | Total Solids | 86 | Percent | 1 | 10/10/97 | 160.3 ⁽²⁾ | |
| 2 | C ₉ - C ₁₈ Aliphatics | 2,000 | µg/Kg | 1,000 | 10/9/97 | Draft 1.0 ⁽³⁾ | |
| 3 | C ₁₉ - C ₃₆ Aliphatics | 57,000 | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 4 | C ₁₀ - C ₂₂ Aromatics | 98,000 | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 5 | Total Extractable Petroleum Hydrocarbons | 157,000 | µg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 6 | Acenaphthene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 7 | Acenaphthylene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 8 | Anthracene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 9 | Benzo(a)anthracene | 4,000 | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 10 | Benzo(a)pyrene | 3,000 | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 11 | Benzo(b+k)fluoranthene (Coelution prevents separation in this sample) | 5,000 | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 12 | Benzo(g,h,i)perylene | 2,000 | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 14 | Chrysene | 4,000 | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 15 | Dibenzo(a,h)anthracene + Indeno(1,2,3-cd)pyrene (Coelution prevents separation in this sample) | 3,000 | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 16 | Fluoranthene | 1,000 | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 17 | Fluorene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |
| 19 | Naphthalene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ | |

HYDROSAMPLE

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REPORT OF ANALYSIS

Job Name: Fernald School
Client Job No: 3404-97-1
Site Location: Waltham, MA
Sampled By: MEB

Date Received: 10/7/97
Lab Job No: 7LA0063
Lab Case No: 41436
Date Reported: 10/10/97

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH

| Sample Number | Sample Identification | Sample Matrix | Date Collected | Analytical Technique | | |
|---------------|-----------------------|---------------|-----------------|----------------------|---------------|--------------------------|
| 41438 | S-3B | soil | 10/6/97 | GC | | |
| Line Number | List of Analytes | Result (1) | Units (dry wt.) | Detection Limit | Date Analyzed | Method Reference |
| 20 | Phenanthrene | 5,000. | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 21 | Pyrene | 8,000. | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 22 | 2-Methyl naphthalene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |

⁽¹⁾ BDL - Below Detection Limit

⁽²⁾ Methods for Chemical Analysis of Water and Wastes, USEPA, 600/4-79-020.

⁽³⁾ Method for the determination of Extractable Petroleum Hydrocarbons (EPH.) Draft 1.0, Mass. Department of Environmental Protection, 1995.

HYDROSAMPLE

HYDROSAMPLE Zecco Incorporated

367 West Main Street, Northboro MA 01532
Tel (508) 393-7222 • Fax (508) 393-3074

REPORT OF ANALYSIS

Job Name: Fernald School
Client Job No: 3404-97-1
Site Location: Waltham, MA
Sampled By: MEB

Date Received: 10/7/97
Lab Job No: 7LA0063
Lab Case No: 41436
Date Reported: 10/10/97

| TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS - EPH | | | | | | |
|--|--|---------------|-----------------|-----------------------|---------------|--------------------------|
| Sample Number | Sample Identification | Sample Matrix | Date Collected | Analytical Techniques | | |
| 41439 | Stream 2 | soil | 10/6/97 | GC | | |
| Line Number | List of Analyses | Result (1) | Units (dry wt.) | Detection Limit | Date Analyzed | Method Reference |
| 1 | Total Solids | 90. | Percent | 1 | 10/10/97 | 160.3 ⁽²⁾ |
| 2 | C ₉ - C ₁₈ Aliphatics | 5,000. | µg/Kg | 1,000 | 10/9/97 | Draft 1.0 ⁽³⁾ |
| 3 | C ₁₉ - C ₃₆ Aliphatics | 97,000. | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 4 | C ₁₀ - C ₂₂ Aromatics | 82,000. | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 5 | Total Extractable Petroleum Hydrocarbons | 184,000 | µg/Kg | 5,000 | listed above | Draft 1.0 ⁽³⁾ |
| 6 | Acenaphthene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 7 | Acenaphthylene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 8 | Anthracene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 9 | Benzo(a)anthracene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 10 | Benzo(a)pyrene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 11 | Benzo(b)fluoranthene | BDL | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 12 | Benzo(g,h,i)perylene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 13 | Benzo(k)fluoranthene | BDL | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 14 | Chrysene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 15 | Dibenzo(a,h)anthracene | BDL | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 16 | Fluoranthene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 17 | Fluorene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |
| 18 | Indeno(1,2,3-cd)pyrene | BDL | µg/Kg | 2,000 | listed above | Draft 1.0 ⁽³⁾ |
| 19 | Naphthalene | BDL | µg/Kg | 1,000 | listed above | Draft 1.0 ⁽³⁾ |

HYDROSAMPLE

Attachment 2

Remedial Waste Disposal Documentation





COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS MATERIALS
One Winter Street Boston, Massachusetts 02108

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

| | | | | | | | |
|--|--|--|--|--|--|---|--|
| UNIFORM HAZARDOUS WASTE MANIFEST | | 1. Generator's US EPA ID No. MF5 088390040 | | Manifest Document No. 53136 | | 2. Page 1 of 1 Information in the shaded areas is not required by Federal law. | |
| 3. Generator's Name and Mailing Address T & S TRUCK SERVICE 7 CRISTO LN. MILBURY MA 01527 | | | | A. State Manifest Document Number MA J 653136 | | | |
| 4. Generator's Phone 508-839-0040 | | | | B. State Trans. ID MA 0215 | | | |
| 5. Transporter 1 Company Name Zeeco, Inc. | | | | C. State Trans. ID MA 1858 | | | |
| 6. US EPA ID Number MA00 52924495 | | | | D. Transporter's Phone 508-393-2537 | | | |
| 7. Transporter 2 Company Name | | | | E. State Trans. ID | | | |
| 8. US EPA ID Number | | | | F. Transporter's Phone | | | |
| 9. Designated Facility Name and Site Address NORTHLAND ENVIRONMENTAL, INC. 275 ALLEN'S AVENUE PROVIDENCE RI 02905 | | | | G. State Facility's ID NOT REQUIRED | | | |
| 10. US EPA ID Number RI00 40098352 | | | | H. Facility's Phone 401-781-6380 | | | |
| 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) STATE REGULATED OILY MATERIAL NON-RCRA, NON-DOT REGULATED | | | | 12. Containers NO. Type 007 DR 22400 | | 13. Total Quantity 02400 | |
| | | | | | | 14. Unit Wt/Vol | |
| | | | | | | Waste No. HA01 | |
| J. Additional Descriptions for Materials Listed Above (Include physical state and hazard code.) (8) OILY SOLIDS a. PROFILE#28501-G | | | | K. Handling Codes for Wastes Listed Above SD 1 | | | |
| b. | | | | c. | | | |
| d. | | | | e. | | | |
| 15. Special Handling Instructions and Additional Information EMERGENCY CONTACT: ZECCO, INC. (800) 442-5336 REF: 75 RD5 18 W06104863 | | | | | | | |
| 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. | | | | | | | |
| Printed/Typed Name Kevin Johnson | | | | Signature <i>[Signature]</i> | | Date Month Day Year 09/30/97 | |
| 17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Steve M. Lawrence | | | | Signature <i>[Signature]</i> | | Date Month Day Year 09/30/97 | |
| 18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name | | | | Signature | | Date Month Day Year | |
| 19. Discrepancy Indication Space | | | | | | | |
| 20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Printed/Typed Name Kevin Johnson | | | | | | | |
| Signature <i>[Signature]</i> | | | | Date Month Day Year 10/01/97 | | | |

Form Approved OMB No. 2050-0039. Expires 9-30-99.
EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

COPY>5: TRANSPORTER 1. RETURN

** TOTAL PAGE.02 **

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

GENERATOR

TRANSPORTER

FACILITY



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

Release Tracking Number *

3-15442

BILL OF LADING (pursuant to 310 CMR 40.0030)

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

Release Name (optional): Fernald School
Street: 200 Trapelo Road Location Aid: _____
City/Town: Waltham Zip Code: 02154 - _____
Date/Period of Generation: 8 / 09 / 97 to / /
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.**

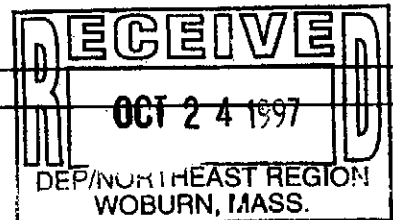
B. PERSON CONDUCTING RESPONSE ACTION ASSOCIATED WITH BILL OF LADING:

Name of Organization: T. S. Truck Service
Name of Contact: Jay Howard Title: President
Street: 7 Christo Lane
City/Town: Millbury State: MA Zip Code: 01527 - _____
Telephone: 508 - 799 - 7629 Ext. _____

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

(check one/specify)

- ☐ RP Specify (circle one): Owner Operator Generator Transporter Other RP:
☒ PRP Specify (circle one): Owner Operator Generator Transporter Other PRP:
☐ Fiduciary/Secured Lender
☐ Agency/Public Utility on a Right of Way
☐ Other Person: _____



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

D. TRANSPORTER/Common CARRIER INFORMATION:

Transporter/Common Carrier Name: Zecco, Inc.
Contact Person: Dave Zalewski Title: _____
Street: 345 West Main Street
City/Town: Northboro State: MA Zip Code: 01532 - _____
Telephone: 800 - 442 - 5336 Ext. _____

E. RECEIVING FACILITY/TEMPORARY STORAGE LOCATION:

Operator/Facility Name: AMREC
Contact Person: Bill McCambridge Title: Manager
Street: 130 Sturbridge Road
City/Town: Charlton State: MA Zip Code: 01508 - _____
Telephone: 508 - 248-3777 Ext. _____

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

Division of Hazardous Waste/Class A Permit #: 100300 Division of Solid Waste Management Permit #: _____ EPA Identification #: MAD982201055

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

Reason for Temporary Storage (if applicable): _____



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012A

Release Tracking Number:

3-15442

BILL OF LADING (pursuant to 310 CMR 40.0030)

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)

☒ Contaminated Media (circle all that apply): Soil Groundwater Surface Water Other: _____

☐ Contaminated Debris (circle all that apply): Demolition/Construction Waste Vegetation/Organic Materials
Inorganic Absorbant Materials Other: _____

☐ Non-hazardous Uncontainerized Waste (circle all that apply): Non-aqueous Phase Liquid Other: _____

☐ Non-hazardous Containerized Waste (circle all that apply): Tank Bottoms/Sludges Containers Drums
Engineered Impoundments Other: _____

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

Estimated Volume of Materials: Cubic Yards: 15 Tons: _____ Other: _____

Contaminant Source (check one/specify): ☐ Transportation Accident ☐ Underground Storage Tank ☒ Other: hose rupture during delivery to US

Response Action Associated with Bill of Lading (circle one): Immediate Response Action Release Abatement Measure
Utility-Related Abatement Measure Limited Removal Action (LRA) Comprehensive Response Action
Other (specify): _____

Remediation Waste Characterization Support Documentation attached:

☒ Site History Information ☒ Sampling and Analytical Methods and Procedures ☒ 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: Corporate Environmental Advisors, Inc.

LSP Name: Lawrence H. Lessard

Title: Director of Operations

Telephone: 508 - 835 - 8822 Ext. 227

I have personally examined and am familiar with the information contained on and submitted with this form. Based on this information, it is my Opinion that the testing and assessment actions undertaken were adequate to characterize the Remediation Waste in accordance with 310 CMR 40.0030, and that the facility or location can accept remediation wastes with the characteristics described in this submittal. I am aware that significant penalties including, but not limited to, possible fines and imprisonment may result if I willfully submit information which I know to be false, inaccurate, or materially incomplete.

Signature: Lawrence H. Lessard

Seal:

Date: 9/2/97

License Number: 9763



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 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 wilfully submitting false, inaccurate, or incomplete information.

Signature: Joseph M. Howard

Date: 10/3/97

Name of Person (print): JOSEPH HOWARD



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

Release Tracking Number:

BILL OF LADING (pursuant to 310 CMR 40.0030)
LOG SHEET _____ **OF** _____

3-15442

LOAD INFORMATION:

LOAD 1: Signature of Transporter Representative:

Date of Shipment: 10/6/97 Time of Shipment: 3:00 (circle one) am/pm

Truck/Tractor Registration: MA18856 Trailer Registration (if any): MA2783

Receiving Facility/Temporary Storage Representative:

Amrec WSM

Date of Receipt: 10/8/97 Time of Receipt: 7:58
(circle one) am/pm

Load Size (cu. yds./tons): 25.50

LOAD 2: Signature of Transporter Representative:

Date of Shipment: ____/____/____ Time of Shipment: ____:____ (circle one) am/pm

Truck/Tractor Registration: _____ Trailer Registration (if any): _____

Receiving Facility/Temporary Storage Representative:

Date of Receipt: ____/____/____ Time of Receipt: ____:____
(circle one) am/pm

Load Size (cu. yds./tons): _____

LOAD 3: Signature of Transporter Representative:

Date of Shipment: ____/____/____ Time of Shipment: ____:____ (circle one) am/pm

Truck/Tractor Registration: _____ Trailer Registration (if any): _____

Receiving Facility/Temporary Storage Representative:

Date of Receipt: ____/____/____ Time of Receipt: ____:____
(circle one) am/pm

Load Size (cu. yds./tons): _____

LOAD 4: Signature of Transporter Representative:

Date of Shipment: ____/____/____ Time of Shipment: ____:____ (circle one) am/pm

Truck/Tractor Registration: _____ Trailer Registration (if any): _____

Receiving Facility/Temporary Storage Representative:

Date of Receipt: ____/____/____ Time of Receipt: ____:____
(circle one) am/pm

Load Size (cu. yds./tons): _____

LOAD 5: Signature of Transporter Representative:

Date of Shipment: ____/____/____ Time of Shipment: ____:____ (circle one) am/pm

Truck/Tractor Registration: _____ Trailer Registration (if any): _____

Receiving Facility/Temporary Storage Representative:

Date of Receipt: ____/____/____ Time of Receipt: ____:____
(circle one) am/pm

Load Size (cu. yds./tons): _____

LOAD 6: Signature of Transporter Representative:

Date of Shipment: ____/____/____ Time of Shipment: ____:____ (circle one) am/pm

Truck/Tractor Registration: _____ Trailer Registration (if any): _____

Receiving Facility/Temporary Storage Representative:

Date of Receipt: ____/____/____ Time of Receipt: ____:____
(circle one) am/pm

Load Size (cu. yds./tons): _____

LOAD 7: Signature of Transporter Representative:

Date of Shipment: ____/____/____ Time of Shipment: ____:____ (circle one) am/pm

Truck/Tractor Registration: _____ Trailer Registration (if any): _____

Receiving Facility/Temporary Storage Representative:

Date of Receipt: ____/____/____ Time of Receipt: ____:____
(circle one) am/pm

Load Size (cu. yds./tons): _____

J. LOG SHEET VOLUME INFORMATION:

Total Volume This Page (cu. yds./tons): 25.50

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

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

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012C

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

Release Tracking Number:

3-15442

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

Receiving Facility/Temporary
Location Representative (print):

Title: manager

Signature:

Date: 10/8/97

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 wilfully submitting false, inaccurate, or incomplete information.

Signature:

Date: 10/9/97

Name of Person (print):

JOSEPH M. HOWARD

Release Tracking Number:

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

3- 15442

K. SUMMARY OF SHIPMENTS:

[illegible]



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012C

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

Release Tracking Number:

3 - 15442

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

Receiving Facility/Temporary
Location Representative (print): _____

Title: _____

Signature: _____

Date: ____/____/____

**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 wilfully submitting false, inaccurate, or incomplete information.

Signature: Joseph M. Howard

Date: 10/9/97

Name of Person (print): JOSEPH M. HOWARD

Attachment 3

Public Notification





CORPORATE ENVIRONMENTAL ADVISORS, INC.

October 24, 1997

City of Waltham
Board of Health
610 Main Street
Waltham, MA 02154

RE: Notice of Availability of RAO
Fernald School - Plant
200 Trapelo Road
Waltham, MA
MA-DEP RTN: 3-15442
CEA Ref. File # 3404-97-1

Dear Sir / Madam:

As promulgated within 310 CMR 40.0000 of the Massachusetts Contingency Plan (MCP), this letter serves as official notification that a Response Action Outcome Statement (RAO) for the above-referenced location has been filed with the Massachusetts Department of Environmental Protection (MA-DEP).

If you have any questions regarding this submittal or would like to obtain a copy of said document, please do not hesitate to contact the undersigned at (508) 835-8822.

Sincerely,

CEA, Inc.

Marc E. Brochu
Hydrogeologist

MEB:meb

pc: T.S. Truck Service, Inc.
Mr. Jay Howard
7 Christo Lane
Millbury, MA 01527

Lawrence H. Lessard, LSP
CEA, Inc.



CORPORATE ENVIRONMENTAL ADVISORS, INC.

October 24, 1997

City of Waltham
Chief Municipal Officer
610 Main Street
Waltham, MA 02154

RE: Notice of Availability of RAO
Fernald School - Plant
200 Trapelo Road
Waltham, MA
MA-DEP RTN: 3-15442
CEA Ref. File # 3404-97-1

Dear Sir / Madam:

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Sincerely,

CEA, Inc.

Marc E. Brochu
Hydrogeologist

MEB:meb

pc: T.S. Truck Service, Inc.
Mr. Jay Howard
7 Christo Lane
Millbury, MA 01527

Lawrence H. Lessard, LSP
CEA, Inc.