



RELEASE ABATEMENT MEASURE (RAM) STATUS REPORT
NO. 14, FORMER MANUFACTURED GAS PLANT (MGP) SITE
10-2 PARCEL B, 129 COMMERCIAL STREET
MALDEN, MASSACHUSETTS
RTN 3-0362 AND LINKED RTN 3-3757 ✓ U/A
TIER IB PERMIT 7378

SCANNED

RECEIVED

APR 11 2005

by

Haley & Aldrich, Inc.
Boston, Massachusetts

DEP
NORTHEAST REGIONAL OFFICE

for

Massachusetts Electric Company
Westborough, Massachusetts

File No. 06558-711
April 2005

HALEY &
ALDRICH



Letter of Transmittal



Haley & Aldrich, Inc.
800 Connecticut Blvd.
Suite 100
East Hartford, CT 06108-7303
Tel: 860.282.9400
Fax: 860.282.9500
HaleyAldrich.com

Date 11 April 2005
File Number 06558-711
From Richard J. Rago

To Massachusetts Department of Environmental Protection
Northeast Regional Office
1 Winter Street
Boston, Massachusetts 02108
Attention Site Management Branch
Copy to Distribution
Subject Former Manufactured Gas Plant (MGP) Site
Parcel B, 129 Commercial Street
Malden, Massachusetts
RTN 3-0362
Tier IB Permit 7378

Copies	Date	Description
1, original	4/7/2005	BWSC Form 106
1	4/7/2005	Release Abatement Measure (RAM) Status Report No. 14
last entry		

Transmitted via First class mail Overnight express Hand delivery Other

Remarks

Please do not hesitate to call if you have any questions





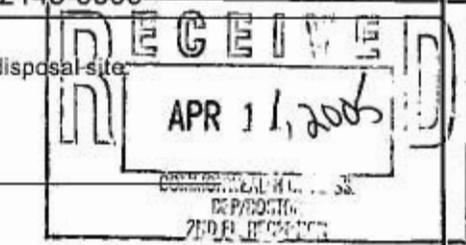
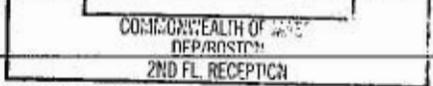
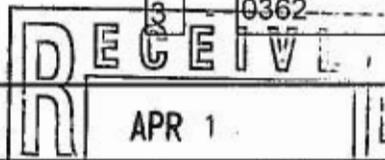
J.R.

RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

0362

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)



A. SITE LOCATION:

1. Site Name/Location Aid: Former Manufactured Gas Plant (MGP) Site

2. Street Address: 129 Commercial Street

3. City/Town: Malden

4. ZIP Code: 02148-0000

5. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site:

- a. Tier IA
- b. Tier IB
- c. Tier IC
- d. Tier II

6. If a Tier I Permit has been issued, provide Permit Number: 7378

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

1. List Submittal Date of Initial RAM Written Plan (if previously submitted): 07/02/1998
(mm/dd/yyyy)

2. Submit an Initial Release Abatement Measure (RAM) Plan.

a. Check here if this RAM Plan received previous oral approval from DEP as a continuation of a Limited Removal Action (LRA).

b. List Date of Oral Approval: _____
(mm/dd/yyyy)

3. Submit a Modified RAM Plan of a previously submitted written RAM Plan.

4. Submit a RAM Status Report.

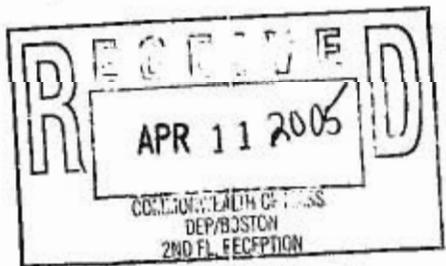
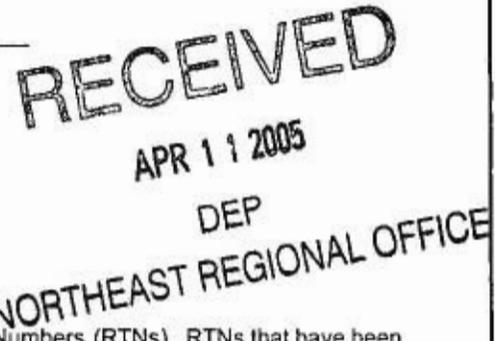
5. Submit a RAM Completion Statement.

6. Submit a Revised RAM Completion Statement.

7. Provide Additional RTNs:

a. Check here if this RAM Submittal covers additional Release Tracking Numbers (RTNs). RTNs that have been previously linked to a Primary Tier Classified RTN do not need to be listed here. This section is intended to allow a RAM to cover more than one unclassified RTN and not show permanent linkage to a Primary Tier Classified RTN.

b. Provide the additional Release Tracking Number(s) covered by this RAM Submittal. - -



(All sections of this transmittal form must be filled out unless otherwise noted above)



RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3 - 0362

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT RAM:

1. Identify Media Impacted and Receptors Affected: (check all that apply)

- a. Air b. Basement c. Critical Exposure Pathway d. Groundwater e. Residence
- f. Paved Surface g. Private Well h. Public Water Supply i. School j. Sediments
- k. Soil l. Storm Drain m. Surface Water n. Unknown o. Wetland p. Zone 2
- q. Others Specify: _____

2. Identify all sources of the Release or Threat of Release, if known: (check all that apply)

- a. Above-ground Storage Tank (AST) b. Boat/Vessel c. Drums d. Fuel Tank
- e. Pipe/Hose/Line f. Tanker Truck g. Transformer h. Under-ground Storage Tank (UST)
- i. Vehicle j. Others Specify: Disposal associated with former MGP operations

3. Identify Oils and Hazardous Materials Released: (check all that apply)

- a. Oils b. Chlorinated Solvents c. Heavy Metals
- d. Others Specify: MGP contaminants: VOCs, PAHs, Cyanide

D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply, for volumes list cumulative amounts)

- 1. Assessment and/or Monitoring Only
- 2. Temporary Covers or Caps
- 3. Deployment of Absorbent or Containment Materials
- 4. Temporary Water Supplies
- 5. Structure Venting System
- 6. Temporary Evacuation or Relocation of Residents
- 7. Product or NAPL Recovery
- 8. Fencing and Sign Posting
- 9. Groundwater Treatment Systems
- 10. Soil Vapor Extraction
- 11. Bioremediation
- 12. Air Sparging
- 13. Excavation of Contaminated Soils

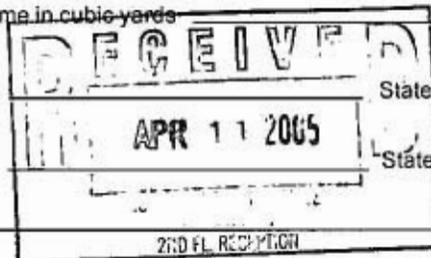
a. Re-use, Recycling or Treatment i. On Site Estimated volume in cubic yards _____

ii. Off Site Estimated volume in cubic yards _____

ii.a. Receiving Facility: _____ Town: _____

ii.b. Receiving Facility: _____ Town: _____

iii. Describe: _____



State: _____

State: _____



RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3 - 0362

Pursuant to 310 C:MR 40.0444 - 0446 (Subpart D)

D. DESCRIPTION OF RESPONSE ACTIONS (cont): (check all that apply, for volumes list cumulative amounts)

- b. Store
 - i. On Site Estimated volume in cubic yards _____
 - ii. Off Site Estimated volume in cubic yards _____

 iia. Receiving Facility: _____ Town: _____ State: _____

 iib. Receiving Facility: _____ Town: _____ State: _____

- c. Landfill
 - i. Cover Estimated volume in cubic yards _____
Receiving Facility: _____ Town: _____ State: _____
 - ii. Disposal Estimated volume in cubic yards _____
Receiving Facility: _____ Town: _____ State: _____

- 14. Removal of Drums, Tanks or Containers:
 - a. Describe Quantity and Amount: _____

 - b. Receiving Facility: _____ Town: _____ State: _____
 - c. Receiving Facility: _____ Town: _____ State: _____

- 15. Removal of Other Contaminated Media:
 - a. Specify Type and Volume: To date: 47 55-gal drums (approx 7755 LBS) spent activated carbon
 - b. Receiving Facility: Clean Harbors Town: Bristol State: CT
 - c. Receiving Facility: Clean Harbors Town: Braintree State: MA

- 16. Other Response Actions:
Describe: _____

- 17. Use of Innovative Technologies:
Describe: _____



RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3 - 0362

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

E. LSP SIGNATURE AND STAMP :

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 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

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

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

> if Section B of this form indicates that a **Release Abatement Measure Completion Statement** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) 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.

1. LSP #: 2242

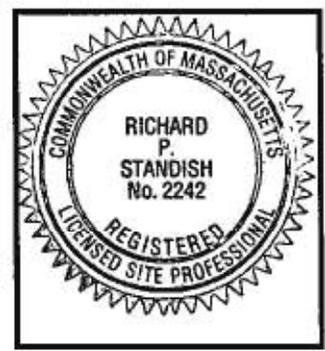
2. First Name: Richard 3. Last Name: Standish

4. Telephone: (860) 290-3131 5. Ext.: _____ 6. FAX: (860) 282-9500

7. Signature: *Richard P. Standish*

8. Date: 04/07/005
(mm/dd/yyyy)

9. LSP Stamp:





Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC106

RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3 - 0362

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

F. PERSON UNDERTAKING RAM:

1. Check all that apply: a. change in contact name b. change of address c. change in the person undertaking response actions
2. Name of Organization: Massachusetts Electric Company
3. Contact First Name: Michele 4. Last Name: Leone
5. Street: 25 Research Drive 6. Title: _____
7. City/Town: Westborough 8. State: MA 9. ZIP Code: 01582-0000
10. Telephone: (508) 389-4296 11. Ext.: _____ 12. FAX: (508) 389-4299

G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING RAM:

1. RP or PRP a. Owner b. Operator c. Generator d. Transporter
 e. Other RP or PRP Specify: Party of Interest
2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
3. Agency or Public Utility on a Flight of Way (as defined by M.G.L. c. 21E, s. 5(j))
4. Any Other Person Undertaking RAM Specify Relationship: _____

H. REQUIRED ATTACHMENT AND SUBMITTALS:

1. Check here if any Remediation Waste, generated as a result of this RAM, will be stored, treated, managed, recycled or reused at the site following submission of the RAM Completion Statement. You must submit a Phase IV Remedy Implementation Plan along with the appropriate transmittal form (BWSC108).
2. 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.
3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the implementation of a Release Abatement Measure.
4. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to the DEP Regional Office.
5. If a RAM Compliance Fee is required for this RAM, check here to certify that a RAM Compliance Fee was submitted to DEP, P. O. Box 4062, Boston, MA 02211.
6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.



RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3 - 3757

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

I. CERTIFICATION OF PERSON UNDERTAKING RAM:

1. I, Michael Lotti, 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.

2. By: [Signature] 3. Title: Environmental Engineer
Signature

4. For: Massachusetts Electric Company 5. Date: 04/04/2005
(Name of person or entity recorded in Section F) (mm/dd/yyyy)

6. Check here if the address of the person providing certification is different from address recorded in Section F.

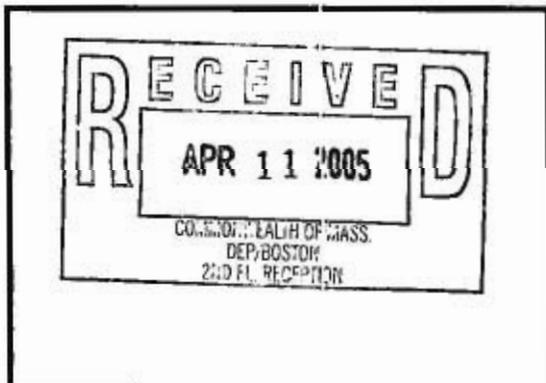
7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. FAX: _____

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY 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.

Date Stamp (DEP USE ONLY:)



Haley & Aldrich, Inc.
800 Connecticut Blvd.
Suite 100
East Hartford, CT 06108-7303
Tel: 860.282.9400
Fax: 860.282.9500
HaleyAldrich.com

**HALEY &
ALDRICH**

7 April 2005
File No. 06558-711

Massachusetts Department of Environmental Protection
Northeast Regional Office
1 Winter Street
Boston, Massachusetts 02108

Attn: Site Management Branch

Subject: Release Abatement Measure (RAM) Status Report No. 14
Former Manufactured Gas Plant (MGP) Site
Parcel B, 129 Commercial Street
Malden, Massachusetts
RTN 3-0362
Tier IB Permit 7378

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District of Columbia*

Ladies and Gentlemen:

On behalf of Massachusetts Electric Company (MEC), Haley & Aldrich, Inc. is submitting this Release Abatement Measure (RAM) Status Report No. 14 for the above referenced site. The original BWSC-106 Transmittal form is included with this report and a copy is included in Appendix A of this report. Work on the subject site is being conducted under the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. This Status Report was prepared in accordance with the guidelines presented in 310 CMR 40.0445.

RAM Status Report No. 14 presents findings during the reporting period 7 October 2004 through 7 April 2005 related to indoor air sampling and on-going operation and maintenance of the sub-slab venting system located at 129 Commercial Street, Malden, Massachusetts.

BACKGROUND

The subject site is located on Parcel B of the former Malden manufactured gas plant (MGP) site and is currently occupied by a bakery company located at 129 Commercial Street, Malden, Massachusetts. The site is bounded to the north by Charles Street, to the east by Commercial Street, to the south by Adams Street, and to the west by the MBTA Orange Line commuter railway as shown on Figure 1, "Project Locus."

Phase II field investigations associated with the former Malden MGP site identified elevated concentrations of volatile organic compounds (VOCs) and polynuclear aromatic hydrocarbons (PAHs) in soil, and elevated concentrations of VOCs, PAHs and cyanide in groundwater beneath the 129 Commercial Street building. VOCs were also identified in indoor air at the facility. The presence of VOCs in indoor air did not constitute an imminent hazard for the

workers in the building, and applicable occupational standards set by the Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH) were not exceeded. MEC conducted response actions to reduce VOC concentrations to reduce potential long-term risks.

The original intent of the RAM was to mitigate the VOC migration into indoor air by applying epoxy sealants to selected floor areas inside the bakery building, as described in the 2 July 1998 RAM Plan. The RAM Plan also called for implementation of a second phase of work consisting of conducting a facility wide sealing program at identified migration pathway points if the first phase floor sealing activities were successful in reducing VOC concentrations in the packaging room. As described in RAM Status Report No. 1 dated 22 January 1999, since floor sealing efforts in the packaging room area of the facility to reduce VOC migration into the building were unsuccessful, the second phase was not implemented.

Haley & Aldrich evaluated alternative response actions to mitigate the VOC migration into indoor air, and submitted a RAM Plan modification to the Massachusetts Department of Environmental Protection (DEP) dated 9 April 1999. During normal bakery operations, a negative air pressure is created inside the building, which may enhance soil vapor migration into the building. The RAM modification proposed installation of an active sub-slab venting system in the general area of the packaging room where the highest indoor VOC concentrations had been encountered in the past. The active sub-slab venting system was proposed to create a negative pressure gradient beneath the floor slab such that soil vapors would migrate to the sub-slab venting system rather than penetrating through the floor slab into indoor air and thereby reduce the potential long term health risks. The active sub-slab venting was not proposed to remediate the source of contamination.

RAM Status Report No. 2, dated 21 July 1999, outlined the proposed active sub-slab venting system and summarized correspondence with DEP concerning the 9 April 1999 RAM Plan Modification through the date of the status report as discussed below. DEP issued a "Conditional Approval of Release Abatement Measure; Designation of Interim Deadline; M.G.L. 21E & 310 CMR 40.0000," letter dated 9 June 1999 which approved the RAM Plan modification with conditions. The Interim Deadline condition identified the need to submit a Phase II Report and Phase III Remedial Action Plan for the entire site to DEP within 120 days of receipt of the conditional approval letter. Haley & Aldrich responded to DEP in a letter dated 24 June 1999 which requested clarification of certain conditions, and deletion of an Interim Deadline condition. DEP issued an "Amendment of Conditional Approval of Release Abatement Measure M.G.L Chapter 21E, & 310 CMR 40.0000", dated 27 July 1999 which allowed for either submittal of a Phase II Report & Phase III Remedial Action Plan within 60 days of the date of the letter, or a Tier Classification and Tier I Permit Application within 60 days of obtaining knowledge of the need to reclassify the site pursuant to 310 CMR 40.0530 of the MCP. A Tier Re-Classification/Tier IA Permit Application was submitted to DEP on 20 August 1999, and Tier IB Permit 7378 with an effective date of 28 December 1999 was subsequently issued by DEP.

As part of the DEP 9 June 1999 conditional approval, a new RAM Status submittal deadline was established to be within 120 days of the date of the letter, or by 7 October 1999. RAM Status Report No. 3, dated 7 October 1999, was submitted to DEP, and detailed the design and installation of the sub-slab venting system. The system was initially started on 21 October 1999, operated for four days, shut down for adjustments, and re-started on 16 November 1999. Details of the initial operation and shut down, system adjustments and re-start, as well as the pilot test and long term operation plan were described in RAM Status Report No. 4, dated 7 April 2000. RAM Status Report No. 5, dated 6 October 2000 through RAM Status Report No. 13, dated 7 October 2004 detailed operation and maintenance of the sub-slab venting system and summarized indoor air sampling results and system monitoring data collected during the respective reporting periods. RAM Status Report No. 14 details indoor air sampling activities and on-going operation and maintenance of the sub-slab venting system, and summarizes monitoring data collected from 7 October 2004 through 7 April 2005.

Efforts on this project will continue to be coordinated and carried out by the following:

Party of Interest

Massachusetts Electric Company
25 Research Drive
Westborough, Massachusetts 01582
Contact: Michele V. Leone, Senior Environmental Engineer
Telephone Number (508) 389-4296

Licensed Site Professional

Richard P. Standish, LSP
Licensed Site Professional No. 2242
Haley & Aldrich, Inc.
800 Connecticut Boulevard, Suite 100
East Hartford, Connecticut 06108-7303
Telephone Number (860) 290-3131

STATUS OF RESPONSE ACTIONS

On-going System Operation

Haley & Aldrich monitors the sub-slab venting system approximately once per week as part of an ongoing operation and maintenance (O&M) schedule. Total VOC levels in influent and effluent vapor from the off-gas control device (sub-slab venting treatment unit) are measured during these visits with a photoionization detector (PID). Influent and effluent vapor samples are collected and analyzed by Gas Chromatography (GC) on a monthly basis. The results are discussed below.

Indoor Air Sampling

Previously, indoor air sample pairs were collected during production and non-production hours (between September 2000 and July 2001) to evaluate the influence of the facility air handling system on indoor air VOC levels. The air handling system operated at a higher rate during production hours than non-production hours. Test results confirmed higher VOC levels during operating hours than non-operating hours. It is thought that the facility air handling system creates a negative pressure within the building when in operation and promotes the migration of VOCs from the subsurface into the building. Therefore, sampling during production hours is thought to be more protective since the facility air handling system may create a negative pressure within the building, thereby facilitating soil vapor intrusion.

During this reporting period, indoor air samples were collected during production hours only by Haley & Aldrich. The first round of indoor air samples was collected on 26 October 2004 and the second round was collected on 13 January 2005. Samples were collected at the same locations previously tested throughout the facility, except for Site 10. One new location was added (Site 11), as shown on Figure 2. Site 11 is adjacent to and approximate 5 ft. away from the former Site 10, which is no longer accessible due to building renovations. Indoor air test results, both previous and new, are summarized on Table I in units of $\mu\text{g}/\text{m}^3$. Laboratory data for this reporting period are located in Appendix B, along with indoor air test results summarized in units of parts per billion by volume (ppbV).

NEW SITE INFORMATION

Treatment System Influent and Effluent Air Testing

As indicated above, O&M visits have been conducted approximately once per week throughout the reporting period. Influent and effluent readings are currently monitored with an HNU Systems PID equipped with an 11.7 eV lamp. System influent, mid-carbon (Effluent-1) and post-carbon (Effluent-2) VOC levels were below the detection level of the instrument (0.1 ppm). A graphical representation of influent PID measurements, both previous and new, is presented in Figure 3. A more detailed description of monitoring data is discussed later in this report.

As specified by DEP in their 9 June 1999 conditional approval letter, off-gas control device (sub-slab venting system treatment unit) influent and effluent vapor samples have been collected on a monthly basis and submitted for laboratory analysis. Samples are collected from the system influent port prior to treatment and at effluent ports on each drum of granular activated carbon. Samples are quantitatively tested for benzene, toluene, ethylbenzene, m&p xylene, and o-xylene, and styrene (including qualitative naphthalene screening) by GC-FID analysis at the Haley & Aldrich laboratory. Results of chemical analysis of sub-slab venting system vapor samples, both previous and new, are presented on Table II, and a graphical representation of the test results are shown on Figure 4.

VOCs were not detected in the influent, mid-carbon (Effluent-1), or post-carbon (Effluent-2) samples during this reporting period.

Indoor Air Sampling and Test Results

A summary of indoor air quality data, both previous and new, is provided on Table I. Laboratory data for this reporting period is located in Appendix B. As in the past, the recent results are below the applicable occupational standards set by OSHA and NIOSH, and would not constitute an imminent hazard for the workers in the building.

During the 26 October 2004 sampling, low concentrations of VOCs were detected, including m&p-xylenes, and toluene in Sites #2, #4, #5, #6, #7, #8, and #11, and benzene in Site #2 and Site #7. The indoor air test results from 26 October 2004 did not exceed MADEP indoor air background levels for the compounds tested. Analytical data for the laboratory duplicate of Site #7 indicated that styrene was detected at 7.1 ug/m³. These data indicate unacceptable laboratory precision for styrene in this laboratory duplicate pair and are not considered to be of suitable data quality for consideration herein. A review of data for Site #7 indicates that the original 26 October 2004 field sample data are consistent with previous site data and considered to be representative of typical field conditions at Site #7, wherein styrene was not detected.

During the 13 January 2005 sampling, low concentrations of VOCs were detected, including benzene, ethylbenzene, m&p-xylenes, o-xylenes, and toluene in Sites #2, #4, #5, #6, #7, #8, and #11, and styrene in Site #8. The indoor air test results from 13 January 2005 did not exceed MADEP indoor air background levels for the compounds tested.

Overall, the indoor air test results are consistent with past sampling events conducted during production hours at the facility.

The next quarterly indoor air sampling round is scheduled for April 2005. Results will be included in the next RAM Status Report due October 2005.

REMEDIATION WASTE MANAGEMENT

No remediation waste was generated or disposed of during this reporting period.

A total of 47 drums, or approximately 7,755 pounds of spent carbon, have been generated and removed from the site since start-up of the sub-slab ventilation system. Also during the reporting period, there was no accumulation of water within the sub-slab venting system.

MONITORING DATA FROM OPERATION OF THE REMEDIAL SYSTEM

Vacuum and pressure, air velocity, PID readings, and vapor temperature are monitored on a regular basis. System data is presented in Table III.

Vacuum and Discharge Pressure

Vacuum conditions are monitored with fixed vacuum gauges on the influent piping prior to the blower and on the knockout drum. A portable gauge is used to periodically measure vacuum at the individual extraction points (EP-1 through EP-5). Vacuum conditions at EP-1, 2, 3 and 4 measured less than 1 inch of water during the reporting period. Vacuum conditions at extraction point EP-4 measured approximately 1 inch of water.

Vacuum at the blower ranged between 5 and 11 inches of water, vacuum at the knockout drum ranged between 3 and 5 inches of water, and discharge pressure ranged between 37 and 42 inches of water during this period.

PID Screening and GC Analysis

VOC levels are screened with an HNu Systems 11.7 eV PID at 3 locations along the vapor stream: Influent (pre-carbon), Effluent-1 (mid-carbon) and Effluent-2 (post-carbon). PID readings of the influent were at background levels (0.0 ppm) as measured throughout the reporting period. A graphical representation of PID readings from system start-up to the present is shown on Figure 3. Effluent PID readings were at background levels throughout the reporting period.

Air samples were collected on a monthly basis in Tedlar bags and analyzed with a Gas Chromatograph (GC). Samples were collected from the influent, mid-carbon (Effluent-1), and post-carbon (Effluent-2) positions. Similar to PID screening, GC analysis shows VOC concentrations in the influent are at or near background levels. VOCs were not detected in the pre-carbon, mid-carbon (Effluent-1), or post-carbon (Effluent-2) samples collected during this reporting period. A graphical representation of GC analytical results of the influent from system start-up to the present is shown on Figure 4.

Influent / Effluent Air Velocity and VOC Removal

Air flow in and out of the system is measured with a Dwyer 401T Air Velocity Meter. During this reporting period, the influent flow rate ranged from 350 fpm (31 cfm) to 500 fpm (44 cfm) and the effluent flow rate ranged from 1200 fpm (105 cfm) to 1250 fpm (109 cfm). Based on flow rates and monthly GC analysis of air samples, it is estimated that nearly 900 lbs of VOCs have been removed from beneath the building since commencement of sub-slab ventilation in November 1999.

FUTURE RESPONSE ACTIONS

Future response actions that will be associated with ongoing system O&M activities include indoor air sampling at 3 month intervals, monthly screening of system influent and effluent vapor samples, and replacement of activated carbon if necessary. The next quarterly indoor air sampling round is scheduled for April 2005. Results will be included in the next RAM Status Report due 7 October 2005.

Indoor air testing suggests the sub-slab venting system was effective during this reporting period and performance may have improved from previous reporting periods, when the system was primarily effective only when the facility was in non-production mode.

System enhancements and alternative response actions were evaluated as part of the Phase III Remedial Action Plan to develop a long-term plan to address indoor air quality at the facility. The Phase III was submitted to DEP in June 2003 and a Remedial Action Alternative (RAA) was recommended. At this time, the proposed RAA may include an air sparging and/or SVE system installed via Horizontal Directional Drilling (HDD).

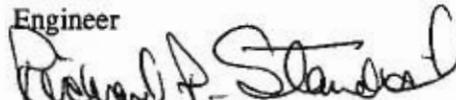
A partial Class C RAO was submitted for the former Malden MGP site in February 2004. It is anticipated that the installation of the RAA system will be conducted as part of the Post-RAO response actions conducted at 129 Commercial Street, and implemented via a modification to the RTN 3-0362/RTN 3-3757 RAM for 129 Commercial Street.

Please do not hesitate to call the undersigned or Michele Leone of MEC at 508-389-4296 if you have any questions or comments.

Sincerely yours,
HALEY & ALDRICH, INC.


Todd R. Butler
Engineer


Richard J. Rago
Senior Scientist


Richard P. Standish, LSP-of-Record
Senior Vice President

Enclosures:

Table I	Summary of Indoor Air Quality Data
Table II	Chemical Analysis of Sub-Slab Venting System Vapor Samples
Table III	Sub-Slab Venting System Monitoring Data
Figure 1	Project Locus
Figure 2	Extraction Well Point and Indoor Air Sample Locations
Figure 3	PID Measurements of Sub-Slab Vapor Influent
Figure 4	GC Analysis of Sub-Slab Vapor Influent
Appendix A	Copy of Form BWSC-106
Appendix B	Indoor Air Quality Analytical Data

c: Massachusetts Electric Company; Attn: Michele V. Leone
Massachusetts Electric Company; Attn: Michael Lotti
KeySpan Energy Delivery of New England; Attn: Patricia A. Haederle
KeySpan Energy Delivery of New England; Attn: Richard J. Schmitz

TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in ug/m ³)												
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11	
13-Jan-05	Benzene	21	--	--	3.8	--	2.6	2.8	2.8	2.8	2.8	3.5	--	--	3.4
	Ethylbenzene	9.62	--	--	2.8	--	2.7	3.5	1.5	2.3	2.4	2.4	--	--	2.6
	m-&p-xylenes	40	--	--	8.2	--	8	11	3.6	6	6.4	6.4	--	--	6.9
	Naphthalene	5	--	--	ND(1.4)	--	ND(1.3)	ND(1.5)	ND(1.2)	ND(1.2)	ND(1.4)	ND(1.4)	--	--	ND(1.8)
	o-xylenes	10	--	--	2.8	--	2.2	2.6	1.3	1.7	2.1	2.1	--	--	2.1
	Styrene	2.79	--	--	ND(1.4)	--	ND(1.3)	ND(1.5)	ND(1.2)	ND(1.2)	1.5	1.5	--	--	ND(1.8)
	Toluene	28.65	--	--	18	--	16	16	15	10	12	12	--	--	13
26-Oct-04	Benzene	21	--	--	2.2	--	ND(1.7)	ND(1.5)	ND(1.8)	1.7	ND(1.5)	ND(1.5)	--	--	1.9
	Ethylbenzene	9.62	--	--	ND(1.4)	--	ND(1.7)	ND(1.5)	ND(1.8)	ND(1.6)	ND(1.5)	ND(1.5)	--	--	ND(1.6)
	m-&p-xylenes	40	--	--	3.6	--	3.2	4.4	3.1	4	2.9	2.9	--	--	3.5
	Naphthalene	5	--	--	ND(1.4)	--	ND(1.7)	ND(1.5)	ND(1.8)	ND(1.6)	ND(1.5)	ND(1.5)	--	--	ND(1.6)
	o-xylenes	10	--	--	ND(1.4)	--	ND(1.7)	ND(1.5)	ND(1.8)	ND(1.6)	ND(1.5)	ND(1.5)	--	--	ND(1.6)
	Styrene	2.79	--	--	ND(1.4)	--	ND(1.7)	ND(1.5)	ND(1.8)	ND(1.6)	ND(1.5)	ND(1.5)	--	--	ND(1.6)
	Toluene	28.65	--	--	6.8	--	6.7	9	13	6.9	5.1	5.1	--	--	6.6
06-Aug-04	Benzene	21	--	--	ND(1.8)	--	ND(3.5)	ND(3.4)	ND(3.3)	ND(3.4)	ND(3.5)	ND(3.5)	--	ND(3.5)	--
	Ethylbenzene	9.62	--	--	ND(1.8)	--	ND(3.5)	ND(3.4)	ND(3.3)	ND(3.4)	ND(3.5)	ND(3.5)	--	ND(3.5)	--
	m-&p-xylenes	40	--	--	2.9	--	3.5	ND(3.4)	ND(3.3)	ND(3.4)	ND(3.5)	ND(3.5)	--	ND(3.5)	--
	Naphthalene	5	--	--	ND(1.8)	--	ND(3.5)	ND(3.4)	ND(3.3)	ND(3.4)	ND(3.5)	ND(3.5)	--	ND(3.5)	--
	o-xylenes	10	--	--	ND(1.8)	--	ND(3.5)	ND(3.4)	ND(3.3)	ND(3.4)	ND(3.5)	ND(3.5)	--	ND(3.5)	--
	Styrene	2.79	--	--	ND(1.8)	--	ND(3.5)	ND(3.4)	ND(3.3)	ND(3.4)	ND(3.5)	ND(3.5)	--	ND(3.5)	--
	Toluene	28.65	--	--	5.1	--	9	7.5	ND(3.3)	ND(3.4)	3.6	3.6	--	ND(3.5)	--

TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in ug/m ³)											
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11
06-May-04	Benzene	21	--	--	ND(1.5)	--	ND(1.9)	1.7	ND(1.9)	ND(1.8)	ND(2.1)	--	ND(1.9)	--
	Ethylbenzene	9.62	--	--	ND(1.5)	--	ND(1.9)	1.7	ND(1.9)	2	ND(2.1)	--	ND(1.9)	--
	m-&p-xylenes	40	--	--	2.9	--	3.5	4.2	4	7.6	5.4	--	6.4	--
	Naphthalene	5	--	--	ND(1.5)	--	ND(1.9)	ND(1.6)	ND(1.9)	ND(1.8)	ND(2.1)	--	ND(1.9)	--
	o-xylenes	10	--	--	ND(1.5)	--	ND(1.9)	1.6	ND(1.9)	3	2.2	--	2.6	--
	Styrene	2.79	--	--	ND(1.5)	--	ND(1.9)	ND(1.6)	ND(1.9)	ND(1.8)	ND(2.1)	--	2.8	--
	Toluene	28.65	--	--	85	--	33	72	18	13	8.7	--	11	--
	Benzene	21	--	--	20.8	--	ND(1.7)	ND(1.7)	ND(8.6)	ND(12.8)	ND(18.5)	--	ND(20.1)	--
	Ethylbenzene	9.62	--	--	16.9	--	ND(1.6)	ND(1.7)	ND(8.7)	ND(13)	ND(18.7)	--	ND(20)	--
	m-&p-xylenes	40	--	--	52.1	--	2	3	ND(8.7)	ND(13)	ND(18.7)	--	ND(20)	--
Naphthalene	5	--	--	2	--	ND(1.7)	ND(1.7)	ND(8.9)	ND(13.1)	ND(18.3)	--	ND(19.9)	--	
o-xylenes	10	--	--	18.7	--	ND(1.6)	ND(1.7)	ND(8.7)	ND(13)	ND(18.7)	--	ND(20)	--	
Styrene	2.79	--	--	2.1	--	ND(1.7)	ND(1.7)	ND(8.5)	ND(12.8)	ND(18.7)	--	ND(20)	--	
Toluene	28.65	--	--	71.6	--	4.5	5.3	56.5	ND(12.8)	ND(18.5)	--	ND(20)	--	
30-Oct-03	Benzene	21	--	--	1.9	--	ND(1.7)	ND(1.5)	--	ND(1.8)	ND(3.5)	--	ND(3.8)	--
	Ethylbenzene	9.62	--	--	ND(1.6)	--	ND(1.7)	2.4	--	ND(1.9)	ND(3.5)	--	ND(3.7)	--
	m-&p-xylenes	40	--	--	3	--	5.2	7.8	--	5.2	ND(3.5)	--	ND(3.7)	--
	Naphthalene	5	--	--	ND(1.6)	--	ND(1.7)	ND(1.5)	--	ND(1.8)	ND(3.5)	--	ND(3.7)	--
	o-xylenes	10	--	--	ND(1.6)	--	ND(1.7)	ND(1.5)	--	ND(1.8)	ND(3.5)	--	7.4	--
	Styrene	2.79	--	--	ND(1.6)	--	ND(1.7)	ND(1.5)	--	ND(1.9)	ND(3.4)	--	ND(3.7)	--
	Toluene	28.65	--	--	6	--	27.1	23	--	23	13.2	--	10.2	--

TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in ug/m ³)												
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11	
23-Jul-03	Benzene	21	ND(1.9)	--	--	--	ND(1.8)	ND(1.6)	ND(3.5)	ND(3.8)	ND(2.5)	--	ND(3.8)	--	
	Ethylbenzene	9.62	ND(1.9)	--	--	--	ND(1.8)	ND(1.6)	ND(3.6)	ND(3.9)	ND(2.5)	--	ND(3.8)	--	
	m-&p-xylenes	40	ND(1.9)	--	--	--	2.3	2.6	ND(3.6)	ND(3.9)	2.5	--	5.6	--	
	Naphthalene	5	ND(1.8)	--	--	--	ND(1.8)	ND(1.6)	ND(3.6)	ND(4)	ND(2.5)	--	ND(3.8)	--	
	o-xylenes	10	ND(1.9)	--	--	--	ND(1.8)	ND(1.6)	ND(3.6)	ND(3.9)	ND(2.5)	--	ND(3.8)	--	
	Styrene	2.79	ND(1.9)	--	--	--	ND(1.8)	ND(1.7)	ND(3.6)	ND(4)	ND(2.5)	--	28.5	--	
	Toluene	28.65	23.7	--	--	--	52.7	64	56.5	27.9	35.8	--	35.4	--	
	25-Apr-03	Benzene	21	--	--	ND(1.9)	--	ND(1.8)	ND(4.2)	ND(95.8)	ND(38.3)	ND(38.3)	--	ND(108.6)	--
		Ethylbenzene	9.62	--	--	ND(1.9)	--	ND(1.8)	ND(4)	ND(95.5)	ND(39.1)	ND(39.5)	--	ND(108.5)	--
		m-&p-xylenes	40	--	--	ND(1.9)	--	ND(1.8)	ND(4)	ND(95.5)	ND(39.1)	ND(39.5)	--	ND(108.5)	--
Naphthalene		5	--	--	ND(1.9)	--	ND(1.8)	ND(4)	ND(94.3)	ND(39.3)	ND(39.8)	--	ND(104.8)	--	
o-xylenes		10	--	--	ND(1.9)	--	ND(1.8)	ND(4)	ND(95.5)	ND(39.1)	ND(39.5)	--	ND(108.5)	--	
Styrene		2.79	--	--	ND(1.9)	--	ND(1.8)	ND(4)	ND(93.7)	ND(39.2)	ND(39.6)	--	ND(106.4)	--	
Toluene		28.65	--	--	4.1	--	23.7	41.4	ND(94.2)	ND(37.7)	ND(41.4)	--	ND(105.5)	--	
24-Jan-03		Benzene	21	--	--	1.9	--	ND(1.5)	ND(1.3)	ND(1.6)	ND(2.2)	ND(1.8)	--	ND(1.8)	--
		Ethylbenzene	9.62	--	--	ND(1.5)	--	ND(1.5)	ND(1.3)	ND(1.6)	ND(2.2)	ND(1.8)	--	ND(1.7)	--
		m-&p-xylenes	40	--	--	2.5	--	ND(1.5)	1.6	2.3	ND(2.2)	ND(1.8)	--	2.5	--
	Naphthalene	5	--	--	ND(1.5)	--	ND(1.5)	ND(1.3)	ND(1.6)	ND(2.2)	ND(1.8)	--	ND(1.7)	--	
	o-xylenes	10	--	--	1.5	--	ND(1.5)	ND(1.3)	ND(1.6)	ND(2.2)	ND(1.8)	--	ND(3.9)	--	
	Styrene	2.79	--	--	ND(1.5)	--	ND(1.5)	ND(1.3)	ND(1.6)	ND(2.2)	ND(1.8)	--	4.3	--	
	Toluene	28.65	--	--	4.1	--	2.4	2.9	2.4	2.3	ND(1.8)	--	2	--	

TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in ug/m ³)											
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11
08-Oct-02	Benzene	21	--	--	ND(2.3)	--	ND(1.2)	--	ND(2.1)	ND(2)	ND(2)	--	1.9	--
	Ethylbenzene	9.62	--	--	ND(2.3)	--	ND(1.2)	--	ND(2.1)	ND(2)	ND(2)	--	3.6	--
	m-&p-xylenes	40	--	--	1.6	--	2.6	--	2.1	ND(2)	ND(2)	--	6.1	--
	Naphthalene	5	--	--	ND(2.3)	--	ND(1.2)	--	ND(2.1)	ND(2)	ND(2)	--	ND(1.7)	--
	o-xylenes	10	--	--	ND(2.3)	--	ND(1.2)	--	ND(2.1)	ND(2)	ND(2)	--	2.5	--
	Styrene	2.79	--	--	ND(2.3)	--	ND(1.1)	--	ND(2.1)	ND(2)	ND(2)	--	23.4	--
	Toluene	28.65	--	--	4.5	--	24.5	--	45.2	8.7	6.8	--	9.4	--
25-Jun-02	Benzene	21	--	--	--	--	1.4	ND(1)	6.1	5.7	3.1	--	5.4	--
	Ethylbenzene	9.62	--	--	--	--	3.1	2.5	ND(1)	ND(1)	ND(2)	--	3.1	--
	m-&p-xylenes	40	--	--	--	--	8.7	6.5	2.6	3	3	--	5.6	--
	Naphthalene	5	--	--	--	--	ND(1)	ND(1)	ND(1)	ND(1)	ND(2)	--	ND(1)	--
	o-xylenes	10	--	--	--	--	2.2	ND(1)	ND(1)	ND(1)	ND(2)	--	2.2	--
	Styrene	2.79	--	--	--	--	ND(1)	ND(1)	ND(1)	ND(1)	ND(2)	--	20	--
	Toluene	28.65	--	--	--	--	34.7	49	41.4	18.8	8.7	--	8.3	--
10-Apr-02	Benzene	21	--	--	ND(1)	--	ND(1)	ND(1)	ND(20.1)	4.5	ND(20.1)	--	ND(20.1)	--
	Ethylbenzene	9.62	--	--	ND(1)	--	ND(1)	1.3	ND(20)	ND(2)	ND(20)	--	ND(20)	--
	m-&p-xylenes	40	--	--	2.3	--	2.4	4.3	ND(20)	ND(2)	ND(20)	--	ND(20)	--
	Naphthalene	5	--	--	ND(1)	--	ND(1)	ND(1)	ND(19.9)	ND(2)	ND(19.9)	--	ND(19.9)	--
	o-xylenes	10	--	--	ND(1)	--	ND(1)	ND(1)	ND(20)	ND(2)	ND(20)	--	ND(20)	--
	Styrene	2.79	--	--	ND(1)	--	ND(1)	ND(1)	ND(20)	ND(2)	ND(20)	--	ND(20)	--
	Toluene	28.65	--	--	4.1	--	19.2	14.3	ND(20)	11.3	ND(20)	--	ND(20)	--

TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in ug/m ³)											
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11
10-Jan-02	Benzene	21	--	--	--	--	ND(1)	ND(2)	38.3	44.7	47.9	--	31.9	--
	Ethylbenzene	9.62	--	--	--	ND(1)	ND(2)	ND(4)	ND(4)	ND(4)	ND(7.8)	--	ND(7.8)	--
	m-&p-xylenes	40	--	--	--	4.3	4.8	ND(4)	ND(4)	ND(4)	ND(7.8)	--	ND(7.8)	--
	Naphthalene	5	--	--	--	ND(1)	ND(2)	ND(4)	ND(4)	ND(7.9)	--	--	ND(7.9)	--
	o-xylenes	10	--	--	--	ND(1)	ND(2)	ND(4)	ND(4)	ND(7.8)	--	--	ND(7.8)	--
	Styrene	2.79	--	--	--	ND(1)	ND(2)	ND(4)	ND(4)	ND(8.1)	--	--	8.9	--
	Toluene	28.65	--	--	--	19.6	19.2	37.7	13.2	10.5	--	--	10.9	--
11-Oct-01	Benzene	21	ND(1)	--	--	ND(1)	ND(2)	10.9	11.5	12.5	--	--	7.7	--
	Ethylbenzene	9.62	ND(1)	--	--	1.9	ND(2)	ND(1)	ND(1)	ND(2)	--	--	3.2	--
	m-&p-xylenes	40	ND(1)	--	--	5.6	3.5	2.8	2.5	3	--	--	5.2	--
	Naphthalene	5	ND(1)	--	--	ND(1)	ND(2)	ND(1)	ND(1)	ND(2)	--	--	ND(1)	--
	o-xylenes	10	ND(1)	--	--	2	ND(2)	ND(1)	ND(1)	ND(2)	--	--	2.2	--
	Styrene	2.79	ND(1)	--	--	ND(1)	ND(2)	ND(1)	ND(1)	ND(2)	--	--	15.8	--
	Toluene	28.65	4.1	--	--	20.7	17.3	31.3	10.9	7.9	--	--	8.3	--
01-Jul-01	Benzene	21	--	ND(2)	--	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	--	--	--	--
	Ethylbenzene	9.62	--	ND(2)	--	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	--	--	--	--
	m-&p-xylenes	40	--	ND(2)	--	ND(2)	ND(2)	2	2.2	ND(2)	--	--	--	--
	Naphthalene	5	--	ND(2)	--	ND(2)	ND(2)	ND(2)	1.7	ND(2)	--	--	--	--
	o-xylenes	10	--	ND(2)	--	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	--	--	--	--
	Styrene	2.79	--	ND(2)	--	ND(2)	ND(2)	6.4	2.8	3.5	--	--	--	--
	Toluene	28.65	--	4.5	--	6.4	109.2	8.3	9.4	9.4	--	--	--	--

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SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in ug/m ³)											
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11
29-Jun-01	Benzene	21	--	--	ND(1)	--	2.2	6.7	31.6	35.1	35.1	--	30.7	--
	Ethylbenzene	9.62	--	--	ND(1)	--	6.5	3.7	ND(1)	ND(1)	ND(1)	--	10.9	--
	m-&p-xylenes	40	--	--	3.4	--	23	12.2	3.3	4.3	3.3	--	13.5	--
	Naphthalene	5	--	--	ND(1)	--	5.8	ND(1)	ND(1)	2.5	3.4	--	41.9	--
	o-xylenes	10	--	--	ND(1)	--	6.9	3.7	ND(1)	ND(1)	ND(1)	--	6.1	--
	Styrene	2.79	--	--	ND(1)	--	ND(1)	ND(1)	2.7	ND(1)	1.7	--	25.5	--
	Toluene	28.65	--	--	7.2	--	16.6	67.8	52.7	20.7	9.4	--	16.6	--
18-Mar-01	Benzene	21	--	--	ND(1)	--	ND(1)	ND(1)	ND(2)	ND(2)	ND(1)	--	16.3	--
	Ethylbenzene	9.62	--	--	ND(1)	--	ND(1)	ND(1)	ND(1)	ND(2)	ND(1)	--	5.2	--
	m-&p-xylenes	40	--	--	ND(1)	--	ND(1)	ND(1)	3.1	3.2	4.1	--	13	--
	Naphthalene	5	--	--	ND(1)	--	ND(1)	ND(1)	ND(2.5)	ND(2)	ND(1)	--	ND(1)	--
	o-xylenes	10	--	--	ND(1)	--	ND(1)	ND(1)	ND(2)	ND(2)	ND(1)	--	4.8	--
	Styrene	2.79	--	--	ND(1)	--	ND(1)	ND(1)	ND(2)	ND(2)	ND(1)	--	14.5	--
	Toluene	28.65	--	--	ND(1)	--	4.1	4.5	15.4	25.6	64	--	35.8	--
16-Mar-01	Benzene	21	--	--	4.2	--	63.9	ND(1)	24.3	29.7	41.5	--	26.2	--
	Ethylbenzene	9.62	--	--	9.1	--	269.1	2.8	ND(1)	1.7	1.6	--	4.2	--
	m-&p-xylenes	40	--	--	15.6	--	208.3	10	5.2	5.2	5.6	--	10.9	--
	Naphthalene	5	--	--	23.1	--	256.8	ND(1)	ND(1)	3.1	2.7	--	ND(1)	--
	o-xylenes	10	--	--	7.8	--	86.8	2.4	2.3	ND(1)	2.7	--	6.9	--
	Styrene	2.79	--	--	1.7	--	37	ND(1)	ND(1)	ND(1)	1.3	--	12.8	--
	Toluene	28.65	--	--	24.5	--	226	21.5	64	23.4	97.9	--	34.3	--

TABLE 1
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in ug/m ³)											
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11
03-Dec-00	Benzene	21	--	--	2.4	--	1.3	TR(1.3)	2.5	2.2	TR(1.9)	--	11	--
	Ethylbenzene	9.62	--	--	1.1	--	ND(1)	ND(2)	ND(1)	ND(2)	ND(2)	--	3.9	--
	m-&p-xylenes	40	--	--	3.2	--	1.5	TR(1.8)	2.3	2	2.1	--	6.6	--
	Naphthalene	5	--	--	ND(1)	--	ND(1)	ND(2)	1.2	ND(2)	ND(2)	--	TR(1.6)	--
	o-xylenes	10	--	--	1.3	--	ND(1)	ND(2)	ND(1)	ND(2)	ND(2)	--	2.7	--
	Styrene	2.79	--	--	ND(1)	--	ND(1)	ND(2)	ND(1)	ND(2)	ND(2)	--	30	--
	Toluene	28.65	--	--	6.3	--	5	5.6	5.2	5.7	5.3	--	6.4	--
	Benzene	21	--	--	3.2	--	1.6	1.9	13	16	14	--	23	--
	Ethylbenzene	9.62	--	--	1.7	--	ND(1)	TR(0.99)	TR(1.5)	TR(1.4)	ND(1)	--	3.8	--
	m-&p-xylenes	40	--	--	5.2	--	2.3	2.9	3.9	3.9	2.3	--	7.3	--
Naphthalene	5	--	--	ND(1)	--	ND(1)	ND(1)	TR(1.3)	2.5	ND(1)	--	2.1	--	
o-xylenes	10	--	--	1.9	--	ND(1)	1	TR(1.2)	TR(1.2)	ND(1)	--	2.8	--	
Styrene	2.79	--	--	ND(1)	--	ND(1)	ND(1)	TR(1.5)	TR(1.2)	ND(1)	--	25	--	
Toluene	28.65	--	--	13	--	22	14	16	12	21	--	9.6	--	
22-Oct-00	Benzene	21	--	--	1.4	--	--	1.7	--	--	--	--	--	--
	Ethylbenzene	9.62	--	--	ND(1)	--	--	1.4	--	--	--	--	--	--
	m-&p-xylenes	40	--	--	2.5	--	--	5.2	--	--	--	--	--	--
	Naphthalene	5	--	--	ND(1)	--	--	2	--	--	--	--	--	--
	o-xylenes	10	--	--	TR(0.9)	--	--	1.9	--	--	--	--	--	--
	Styrene	2.79	--	--	ND(1)	--	--	3.3	--	--	--	--	--	--
	Toluene	28.65	--	--	3.7	--	--	7.4	--	--	--	--	--	--

TABLE 1
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in ug/m ³)													
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11		
20-Oct-00	Benzene	21	--	--	2.8	--	--	--	--	4.5	--	--	--	--	--	--
	Ethylbenzene	9.62	--	--	1.3	--	--	--	--	2	--	--	--	--	--	--
	m-&p-xylenes	40	--	--	4.3	--	--	--	--	6.1	--	--	--	--	--	--
	Naphthalene	5	--	--	ND(1)	--	--	--	--	11.1	--	--	--	--	--	--
	o-xylenes	10	--	--	1.6	--	--	--	--	2.2	--	--	--	--	--	--
	Styrene	2.79	--	--	ND(1)	--	--	--	--	2.3	--	--	--	--	--	--
	Toluene	28.65	--	--	7	--	--	--	--	22.6	--	--	--	--	--	--
01-Oct-00	Benzene	21	--	--	1.2	--	--	--	--	1.6	--	--	--	--	--	--
	Ethylbenzene	9.62	--	--	ND(1)	--	--	--	--	1.1	--	--	--	--	--	--
	m-&p-xylenes	40	--	--	1.9	--	--	--	--	3.2	--	--	--	--	--	--
	Naphthalene	5	--	--	ND(1)	--	--	--	--	ND(1)	--	--	--	--	--	--
	o-xylenes	10	--	--	ND(1)	--	--	--	--	1.1	--	--	--	--	--	--
	Styrene	2.79	--	--	ND(1)	--	--	--	--	1.8	--	--	--	--	--	--
	Toluene	28.65	--	--	6.7	--	--	--	--	11.9	--	--	--	--	--	--
29-Sep-00	Benzene	21	--	--	1.7	--	--	--	--	24.8	--	--	--	--	--	--
	Ethylbenzene	9.62	--	--	ND(1)	--	--	--	--	2.3	--	--	--	--	--	--
	m-&p-xylenes	40	--	--	2.4	--	--	--	--	6.5	--	--	--	--	--	--
	Naphthalene	5	--	--	ND(1)	--	--	--	--	1.6	--	--	--	--	--	--
	o-xylenes	10	--	--	ND(1)	--	--	--	--	1.9	--	--	--	--	--	--
	Styrene	2.79	--	--	ND(1)	--	--	--	--	1.7	--	--	--	--	--	--
	Toluene	28.65	--	--	8.1	--	--	--	--	17.4	--	--	--	--	--	--

TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in ug/m ³)											
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11
19-Jul-00	Benzene	21	--	--	3.2	--	2.4	6.1	87.1	93.5	31.6	--	64.5	--
	Ethylbenzene	9.62	--	--	2	--	TR(1.5)	TR(1.3)	TR(1.8)	TR(1.4)	TR(1.2)	--	9.1	--
	m-&p-xylenes	40	--	--	6.5	--	3.7	2.8	4.3	3.3	3.2	--	16.5	--
	Naphthalene	5	--	--	ND(1)	--	ND(1)	ND(1)	3.1	4	TR(1.7)	--	TR(1.4)	--
	o-xylenes	10	--	--	2.5	--	TR(1.4)	TR(1.2)	TR(1.7)	TR(1.3)	TR(1.3)	--	6.5	--
	Styrene	2.79	--	--	ND(1)	--	TR(1.1)	TR(1.4)	6.1	4.1	4.3	--	78.3	--
	Toluene	28.65	--	--	17.8	--	36.3	35.9	35.9	23.3	22.2	--	33.7	--
06-Apr-00	Benzene	21	--	--	2.3	--	TR(1.8)	ND(1)	45.2	32.3	83.9	--	45.2	--
	Ethylbenzene	9.62	--	--	ND(1)	--	16.5	208.7	ND(1)	73.9	17	--	ND(1)	--
	m-&p-xylenes	40	--	--	2.9	--	56.5	739.1	11.7	265.2	60.9	--	10	--
	Naphthalene	5	--	--	ND(1)	--	ND(1)	ND(1)	ND(1)	ND(1)	TR(2.5)	--	ND(1)	--
	o-xylenes	10	--	--	TR(1)	--	9.6	134.8	ND(1)	47.8	10.4	--	TR(4.2)	--
	Styrene	2.79	--	--	ND(1)	--	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	9.6	--
	Toluene	28.65	--	--	8.5	--	159.3	2000	125.9	629.6	240.7	--	21.9	--
22-Feb-00	Benzene	21	--	--	2.5	--	2.1	--	58.1	32.3	83.9	--	71	--
	Ethylbenzene	9.62	--	--	1.2	--	1.1	--	2.8	1.7	2.7	--	10	--
	m-&p-xylenes	40	--	--	4	--	3.1	--	8.7	5.2	9.6	--	18.3	--
	Naphthalene	5	--	--	ND(1)	--	ND(1)	--	ND(1)	ND(1)	2.1	--	ND(1)	--
	o-xylenes	10	--	--	1.3	--	1	--	2.9	1.7	2.9	--	6.5	--
	Styrene	2.79	--	--	ND(1)	--	ND(1)	--	1.8	ND(1)	1.8	--	39.1	--
	Toluene	28.65	--	--	8.5	--	9.3	--	32.2	13	16.7	--	23	--

TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in ug/m ³)											
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11
29-Nov-99	Benzene	21	--	--	3.5	--	1.2	1.8	11.6	11.6	18.1	--	9.7	--
	Ethylbenzene	9.62	--	--	1	--	1.1	1.5	1.2	0.8	TR(0.7)	--	3.8	--
	m-&p-xylenes	40	--	--	3.1	--	3.9	5.2	3	2.3	2.3	--	7	--
	Naphthalene	5	--	--	ND(2.1)	--	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	--	ND(2.1)	--
	o-xylenes	10	--	--	TR(1)	--	1.1	1.5	1	0.7	TR(0.7)	--	2.8	--
	Styrene	2.79	--	--	ND(2.2)	--	ND(2.2)	ND(2.2)	1.4	ND(2.2)	1	--	29.6	--
	Toluene	28.65	--	--	7.4	--	9.3	16.7	20.4	8.5	7.8	--	9.3	--
30-Sep-99	Benzene	21	0.9	--	2.1	1.4	TR(1.5)	2.3	61.3	32.3	21.6	--	--	--
	Ethylbenzene	9.62	ND(2.2)	--	1.2	TR(0.9)	TR(1.1)	1.6	17	7.4	4.8	--	--	--
	m-&p-xylenes	40	2	--	3.7	2.8	3.2	3.1	43.5	20.9	13.9	--	--	--
	Naphthalene	5	TR(0.9)	--	1	TR(0.8)	TR(1.6)	1.1	2.2	2.6	2.1	--	--	--
	o-xylenes	10	TR(1)	--	1.7	1.2	TR(1.5)	1.3	12.2	6.5	4.2	--	--	--
	Styrene	2.79	ND(2.2)	--	ND(2.2)	ND(2.2)	ND(2.2)	ND(2.2)	3.3	1.7	165.2	--	--	--
	Toluene	28.65	5.2	--	7	7.8	10.7	9.3	63	18.1	15.9	--	--	--
18-Dec-98	Benzene	21	--	--	--	--	--	--	74.2	22.6	--	--	--	--
	Ethylbenzene	9.62	--	--	--	--	--	--	12.2	7.4	--	--	--	--
	m-&p-xylenes	40	--	--	--	--	--	--	28.7	28.7	--	--	--	--
	Naphthalene	5	--	--	--	--	--	--	ND(1)	2.4	--	--	--	--
	o-xylenes	10	--	--	--	--	--	--	9.6	13	--	--	--	--
	Styrene	2.79	--	--	--	--	--	--	1.3	ND(2)	--	--	--	--
	Toluene	28.65	--	--	--	--	--	--	16.7	13	--	--	--	--

TABLE I

SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in ug/m ³)															
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11				
22-Dec-97	Benzene	21	--	--	6.8	--	--	--	58.1	19.7	--	--	--	--	--	--	--	
	Ethylbenzene	9.62	--	--	3	--	--	--	5.2	8.7	--	--	--	--	--	--	--	
	m-&p-xylenes	40	--	--	10.4	--	--	--	5.7	26.1	--	--	--	--	--	--	--	
	Naphthalene	5	--	--	ND(2.1)	--	--	--	ND(2.1)	TR(1.1)	--	--	--	--	--	--	--	
	o-xylenes	10	--	--	3.9	--	--	--	1.7	8.7	--	--	--	--	--	--	--	
	Styrene	2.79	--	--	ND(2.2)	--	--	--	1.3	3.5	--	--	--	--	--	--	--	--
	Toluene	28.65	--	--	18.1	--	--	--	9.6	81.5	--	--	--	--	--	--	--	--
				2.9	--	6.1	3.5	2.6	6.1	196.8	41.9	24.2	--	--	--	--	--	--
19-Nov-97	Benzene	21	ND(0.9)	--	3.9	1.3	1.7	4.8	11.7	4.3	3	--	--	--	--	--	--	
	Ethylbenzene	9.62	2.6	--	13.5	4.8	4.3	6.5	12.2	8.7	6.5	--	--	--	--	--	--	
	m-&p-xylenes	40	ND(1.1)	--	ND(1.1)	--	--	--	--	--	--							
	Naphthalene	5	0.9	--	5.2	1.7	1.7	2.6	3.5	2.6	2.2	--	--	--	--	--	--	
	o-xylenes	10	ND(0.9)	--	ND(0.9)	ND(0.9)	ND(0.9)	ND(0.9)	1.7	ND(0.9)	2.2	--	--	--	--	--	--	
	Styrene	2.79	9.3	--	24.1	12.6	11.1	15.2	19.3	24.4	13.3	--	--	--	--	--	--	
	Toluene	28.65	--	3.2	--	--	--	--	5.8	--	3.5	3.5	2.3	--	--	--	--	
				--	1.7	--	--	--	4.8	--	61.7	90	69.1	--	--	--	--	
18-Jun-94	Benzene	21	--	4.3	--	--	--	10.9	--	149.1	210	162.2	--	--	--	--	--	
	Ethylbenzene	9.62	--	1.1	--	--	--	2.1	--	1.1	1.1	1.1	--	--	--	--	--	
	m-&p-xylenes	40	--	1.3	--	--	--	3.5	--	32.2	45.7	34.3	--	--	--	--	--	
	Naphthalene	5	--	TR(0.11)	--	--	--	1.3	--	3.5	3.5	3	--	--	--	--	--	
	o-xylenes	10	--	13.3	--	--	--	44.1	--	29.6	20	20	--	--	--	--	--	
	Styrene	2.79	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	Toluene	28.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
				--	--	--	--	--	--	--	--	--	--	--	--	--	--	

TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in ug/m ³)								
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8

NOTES AND ABBREVIATIONS:

- VOCs (volatile organic compound) were analyzed by EPA Method TO14. Results are provided in ug/m³, unless otherwise noted.
- OSHA PEL: Permissible Exposure Limits for air contaminants in Title 29 CFR Part 1910.1000, Department of Labor, Occupational Safety Health Administration, 1989 and 1993 final ruling. Based on the lowest of the 8-hour average, 15-minute readings, or instantaneous readings.
- ACGIH TLV: Threshold Limit Values recommended by the ACGIH. Based on the lowest of the 8-hour average, 15-minute readings, or instantaneous readings.
- NIOSH REL: 1994 Recommended Exposure Limits from the National Institute of Occupational Safety and Health. Based on the lowest of the 8-hour average, 15-minute readings, or instantaneous readings.
- MADEP Indoor Air Background Values from: MADEP, "Characterizing Risks Posed by Petroleum Contaminated Sites: Implementation of MADEP VPH/EPH Approach," Final Policy, 31 October 2002 (Policy #WSC-02-411); and MCP Toxicity.xls (MCPStandb.zip), 20 December 2001, available at <http://www.state.ma.us/dep/bwsc/files/standard/gw2/gw2.htm>.
- ND: compound not detected above quantitation limit, number in parentheses is the quantitation limit.
- TR: compound detected below the quantitation limit, number in parentheses is the quantitation limit.
- Test Results associated with 6 April 2000 sampling event are not representative of typical indoor air conditions due to interference from products containing VOCs being used inside the facility at the time of sampling.
- Results collected from the Rooftop sample location on 22 December 1997 are not shown in this table but have been reported in RAM Status reports dated 7 October 2004 and earlier.
- Due to facility modifications, Sample location 10 is no longer accessible as of October 2004. This location has been replaced by Sample Location 11; refer to Figure 1 for this sample location.

TABLE II
CHEMICAL ANALYSIS OF SUB-SLAB VENTING SYSTEM VAPOUR SAMPLES
129 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

INFLUENT Sampling Increment Sample Date	Shut valve on 19 January 2000											
	Day 1 16-Nov-99	Day 3 19-Nov-99	Day 7 23-Nov-99	Day 14 30-Nov-99	Day 28 14-Dec-99	2 Months 10-Jan-00	Day 70 25-Jan-00	3 Months 15-Feb-00	4 Months 14-Mar-00	4.5 Months 29-Mar-00	5 Months 26-Apr-00	5.5 Months 1-May-00
PID Reading (ppm)	175	63	60	10.5	2	0.2	195	82	61	38	1.6	19
Compound (ug/L)												
Benzene	348	88	127	19	19	ND	402	192	148	72	47	26
Toluene	45	23	36	7	11	ND	200	173	326	89	103	53
Ethylbenzene	32	15	22	4	5	ND	77	50	29	29	23	23
M&P Xylene	18	11	17	3	5	ND	76	70	282	48	126	42
O Xylene	2	ND	3	ND	ND	ND	14	17	36	14	67	18
Naphthalene	ND	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ND	ND	5	ND	ND	4	13	12	29	10	48	6
Total VOCs	445	137	216	183	40	2	782	520	974	242	428	168

EFFLUENT - 1 Sampling Increment Sample Date	Shut valve on 19 January 2000											
	Day 1 16-Nov-99	Day 3 19-Nov-99	Day 7 23-Nov-99	Day 14 30-Nov-99	Day 28 14-Dec-99	2 Months 10-Jan-00	Day 70 25-Jan-00	3 Months 15-Feb-00	4 Months 14-Mar-00	4.5 Months 29-Mar-00	5 Months 26-Apr-00	5.5 Months 1-May-00
PID Reading (ppm)	0	0	11	4.1	0	0.2	0	0.8	4	0	0.4	0
Compound (ug/L)												
Benzene	ND	ND	33	14	ND	ND	ND	ND	56	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	5	ND	ND	11	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
M&P Xylene	ND	ND	ND	ND	ND	ND	ND	4	ND	ND	41	ND
O Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	26	ND
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ND	ND	ND	4	ND	ND	ND	ND	16	ND	15	ND
Total VOCs	0	0	33	18	0	0	0	9	72	ND	93	0

EFFLUENT - 2 Sampling Increment Sample Date	Shut valve on 19 January 2000											
	Day 1 16-Nov-99	Day 3 19-Nov-99	Day 7 23-Nov-99	Day 14 30-Nov-99	Day 28 14-Dec-99	2 Months 10-Jan-00	Day 70 25-Jan-00	3 Months 15-Feb-00	4 Months 14-Mar-00	4.5 Months 29-Mar-00	5 Months 26-Apr-00	5.5 Months 1-May-00
PID Reading (ppm)	0	0	0	0	0	0	0	0	0	0	0	0
Compound (ug/L)												
Benzene	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
M&P Xylene	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	14	ND
O Xylene	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	9	ND
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Styrene	2	NA	2	ND	ND	ND	11	ND	36	ND	6	ND
Total VOCs	2	NA	2	6	0	0	11	0	36	ND	29	0

NOTES AND ABBREVIATIONS:
 1. VOC's: volatile organic compounds
 2. ND: compound not detected above method detection limit (less than approximately 1 ug/L)
 3. NA: not analyzed
 4. INFLUENT: Vapor samples collected prior to carbon treatment
 5. EFFLUENT - 1: Vapor samples collected after flowing through primary carbon treatment drain (old carbon)
 6. EFFLUENT - 2: Vapor samples collected after flowing through secondary carbon treatment drain (new carbon)
 7. Samples analyzed by gas chromatograph at Liberty & Aldrich laboratories.

TABLE II
 CHEMICAL ANALYSIS OF SUB-SLAB VENTING SYSTEM VAPOR SAMPLES
 129 COMMERCIAL STREET, PARCEL B, OF FORMER MANUFACTURED GAS PLANT SITE
 MALDEN, MASSACHUSETTS

		Opened valve on 2 October 2000												
INFLUENT		6 Months	7 Months	8 Months	9 Months	10 Months	11 months	12 months	13 months	14 months	15 months	15 months	16 Months	
Sampling Increment		24-May-00	23-Jun-00	31-Jul-00	29-Aug-00	27-Sep-00	31-Oct-00	28-Nov-00	31-Dec-00	22-Jan-01	27-Feb-01	26-Mar-01	30-Apr-01	
Sample Date														
PID Reading (ppm)		9.4	4.2	1.9	0.6	0.4	0	0	0	0	0	0	0	
Compound (ug/L)														
Benzene		13	ND											
Toluene		50	30	7	ND									
Ethylbenzene		15	6	ND										
M&P Xylene		27	18	5	18	ND								
O Xylene		8	7	ND	2	ND	ND	5	ND	ND	ND	ND	ND	
Naphthalene		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Styrene		ND	ND	3	ND	ND	2	4	3	ND	ND	ND	5	
Total VOCs		113	51	15	28	8	2	9	3	6	6	6	5	

		Opened valve on 2 October 2000												
EFFLUENT - 1		6 Months	7 Months	8 Months	9 Months	10 Months	11 months	12 months	13 months	14 months	15 months	15 months	16 Months	
Sampling Increment		24-May-00	23-Jun-00	31-Jul-00	29-Aug-00	27-Sep-00	31-Oct-00	28-Nov-00	31-Dec-00	22-Jan-01	27-Feb-01	26-Mar-01	30-Apr-01	
Sample Date														
PID Reading (ppm)		4.5	3.3	1.2	0.8	0	0	0	0	0	0	0	0	
Compound (ug/L)														
Benzene		28	8	ND										
Toluene		ND	11	13	10	ND								
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
M&P Xylene		ND	ND	ND	3	ND								
O Xylene		ND	ND	ND	31	ND								
Naphthalene		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Styrene		ND	ND	ND	ND	ND	5	11	4	ND	ND	ND	ND	
Total VOCs		28	19	13	21	3	5	11	4	6	6	6	6	

		Opened valve on 2 October 2000												
EFFLUENT - 2		6 Months	7 Months	8 Months	9 Months	10 Months	11 months	12 months	13 months	14 months	15 months	15 months	16 Months	
Sampling Increment		24-May-00	23-Jun-00	31-Jul-00	29-Aug-00	27-Sep-00	31-Oct-00	28-Nov-00	31-Dec-00	22-Jan-01	27-Feb-01	26-Mar-01	30-Apr-01	
Sample Date														
PID Reading (ppm)		0	0	0	0	0	0	0	0	0	0	0	0	
Compound (ug/L)														
Benzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Toluene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
M&P Xylene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
O Xylene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Naphthalene		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Styrene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Total VOCs		0	0	0	0	0	0	0	0	0	0	0	0	

NOTES AND ABBREVIATIONS:
 1. VOCs - volatile organic compounds
 2. ND - compound not detected above certified detection limit (just data approximately 1 ug/L)
 3. NA - not analyzed
 4. INFLUENT - Vapor sample collected prior to carbon treatment
 5. EFFLUENT - 1 - Vapor sample collected after flowing through primary carbon treatment drum (mid-carbon)
 6. EFFLUENT - 2 - Vapor sample collected after flowing through secondary carbon treatment drum (post-carbon)
 7. Samples analyzed by gas chromatograph at Liberty & Altrich Laboratory.

TABLE II
 CHEMICAL ANALYSIS OF SUB-SLAB VENTING SYSTEM VAPOR SAMPLES
 129 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
 MALDEN, MASSACHUSETTS

INFLUENT	17 Months	18 Months	19 Months	20 Months	21 Months	22 Months	23 Months	24 Months	25 Months	26 Months	27 Months
Sampling Increment	31-May-01	27-Jun-01	27-Jul-01	31-Aug-01	30-Sep-01	29-Oct-01	30-Nov-01	19-Dec-01	31-Jan-02	27-Feb-02	28-Mar-02
Sample Date	0	0	0	0	0	0	0	0	0	0	0
PID Reading (ppm)	0	0	0	0	0	0	0	0	0	0	0
Compound (ug/L)											
Benzene	ND										
Toluene	ND										
Ethylbenzene	ND										
m,p-Xylene	ND										
O-Xylene	ND										
Naphthalene	NA										
Styrene	4	2	2	1	2	1	4	1	1	1	1
Total VOCs	6	3	0	1	3	0	4	0	0	0	0

EFFLUENT - 1	17 Months	18 Months	19 Months	20 Months	21 Months	22 Months	23 Months	24 Months	25 Months	26 Months	27 Months
Sampling Increment	31-May-01	27-Jun-01	27-Jul-01	31-Aug-01	30-Sep-01	29-Oct-01	30-Nov-01	19-Dec-01	31-Jan-02	27-Feb-02	28-Mar-02
Sample Date	0	1.2	0.8	0	0	0	0	0	0	0	0
PID Reading (ppm)	0	1.2	0.8	0	0	0	0	0	0	0	0
Compound (ug/L)											
Benzene	ND										
Toluene	ND										
Ethylbenzene	ND										
m,p-Xylene	ND										
O-Xylene	ND										
Naphthalene	NA										
Styrene	ND	ND	ND	2	2	0	1	1	0	0	0
Total VOCs	0	0	0	2	2	0	0	0	0	0	0

EFFLUENT - 3	17 Months	18 Months	19 Months	20 Months	21 Months	22 Months	23 Months	24 Months	25 Months	26 Months	27 Months
Sampling Increment	31-May-01	27-Jun-01	27-Jul-01	31-Aug-01	30-Sep-01	29-Oct-01	30-Nov-01	19-Dec-01	31-Jan-02	27-Feb-02	28-Mar-02
Sample Date	0	0	0	0	0	0	0	0	0	0	0
PID Reading (ppm)	0	0	0	0	0	0	0	0	0	0	0
Compound (ug/L)											
Benzene	ND										
Toluene	ND										
Ethylbenzene	ND										
m,p-Xylene	ND										
O-Xylene	ND										
Naphthalene	NA										
Styrene	ND										
Total VOCs	0	0	0	0	0	0	0	0	0	0	0

NOTES AND ABBREVIATIONS:
 1. VOC's: volatile organic compounds
 2. ND: compound not detected above method detection limit (see first approximately 1 ug/L)
 3. NA: not analyzed
 4. INFLUENT: Vapor samples collected prior to carbon treatment
 5. EFFLUENT - 1: Vapor samples collected after flowing through primary carbon treatment drum (not carbon)
 6. EFFLUENT - 2: Vapor samples collected after flowing through secondary carbon treatment drum (post-carbon)
 7. Samples analyzed by gas chromatograph at Unity & Clark's laboratory

TABLE II
 CHEMICAL ANALYSIS OF SUB-SLAB VENTING SYSTEM VAPOR SAMPLES
 129 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
 MALDEN, MASSACHUSETTS

INFLUENT		28 Months	29 Months	30 Months	31 months	32 months	33 Months	34 Months	35 Months	36 Months	37 Months	38 Months	39 Months
Sampling Increment		2-May-02	5-Jun-02	27-Jul-02	30-Jul-02	27-Aug-02	25-Sep-02	28-Oct-02	24-Nov-02	31-Dec-02	29-Jan-03	21-Feb-03	31-Mar-03
Sample Date		0	0	0	0	0	0	0	0	0	0	0	0
PID Reading (ppm)		0	0	0	0	0	0	0	0	0	0	0	0
Compound (ug/L)													
Benzene		ND											
Toluene		ND											
Ethylbenzene		ND											
M&P Xylene		ND											
O Xylene		ND											
Naphthalene		NA											
Styrene		ND											
Total VOCs		0	0	0	0	0	0	0	0	0	0	0	0

EFFLUENT - 1		28 Months	29 Months	30 Months	31 months	32 months	33 Months	34 Months	35 Months	36 Months	37 Months	38 Months	39 Months
Sampling Increment		2-May-02	5-Jun-02	27-Jul-02	30-Jul-02	27-Aug-02	25-Sep-02	28-Oct-02	24-Nov-02	31-Dec-02	29-Jan-03	21-Feb-03	31-Mar-03
Sample Date		0	0	0	0	0	0	0	0	0	0	0	0
PID Reading (ppm)		0	0	0	0	0	0	0	0	0	0	0	0
Compound (ug/L)													
Benzene		ND											
Toluene		ND											
Ethylbenzene		ND											
M&P Xylene		ND											
O Xylene		ND											
Naphthalene		NA											
Styrene		ND											
Total VOCs		0	0	0	0	0	0	0	0	0	0	0	0

EFFLUENT - 2		28 Months	29 Months	30 Months	31 months	32 months	33 Months	34 Months	35 Months	36 Months	37 Months	38 Months	39 Months
Sampling Increment		2-May-02	5-Jun-02	27-Jul-02	30-Jul-02	27-Aug-02	25-Sep-02	28-Oct-02	24-Nov-02	31-Dec-02	29-Jan-03	21-Feb-03	31-Mar-03
Sample Date		0	0	0	0	0	0	0	0	0	0	0	0
PID Reading (ppm)		0	0	0	0	0	0	0	0	0	0	0	0
Compound (ug/L)													
Benzene		ND											
Toluene		ND											
Ethylbenzene		ND											
M&P Xylene		ND											
O Xylene		ND											
Naphthalene		NA											
Styrene		ND											
Total VOCs		0	0	0	0	0	0	0	0	0	0	0	0

NOTES AND ABBREVIATIONS:
 1. VOCs - volatile organic compounds
 2. ND - compound not detected above method detection limit (less than approximately 1 ug/L)
 3. NA - not analyzed
 4. INFLUENT - Vapor samples collected prior to carbon treatment
 5. EFFLUENT - 1 - Vapor samples collected after flowing through primary carbon treatment drum (real carbon)
 6. EFFLUENT - 2 - Vapor samples collected after flowing through secondary carbon treatment drum (post-adsorbent)
 7. Samples analyzed by J&H Chromatography & Heavy & Light Laboratory

TABLE II
 CHEMICAL ANALYSIS OF SUB-SLAB VENTING SYSTEM VAPOR SAMPLES
 129 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
 MALDEN, MASSACHUSETTS

INFLUENT	40 Months 28-Apr-03	41 Months 29-May-03	42 Months 30-Jun-03	43 months 31-Jul-03	44 months 22-Aug-03	45 Months 30-Sep-03	46 Months 28-Oct-04	47 Months 30-Nov-04	48 Months 18-Dec-04	49 Months 22-Jan-04	50 Months 14-Feb-04
Sampling Increment	0	0	0	0	0	0	0	0	0	0	0
Sample Date											
PID Reading (ppm)	0	0	0	0	0	0	0	0	0	0	0
Compound (ug/L)											
Benzene	ND										
Toluene	ND										
Ethylbenzene	ND										
Methyl Xylene	4	ND	5	ND							
O Xylene	ND										
Naphthalene	NA										
Styrene	1	ND									
Total VOCs	11	0	5	0	0	0	0	0	0	0	0

EFFLUENT - 1	40 Months 28-Apr-03	41 Months 29-May-03	42 Months 30-Jun-03	43 months 31-Jul-03	44 months 22-Aug-03	45 Months 30-Sep-03	46 Months 28-Oct-04	47 Months 30-Nov-04	48 Months 18-Dec-04	49 Months 22-Jan-04	50 Months 14-Feb-04
Sampling Increment	0	0	0	0	0	0	0	0	0	0	0
Sample Date											
PID Reading (ppm)	0	0	0	0	0	0	0	0	0	0	0
Compound (ug/L)											
Benzene	ND										
Toluene	ND										
Ethylbenzene	ND										
Methyl Xylene	ND										
O Xylene	ND										
Naphthalene	NA										
Styrene	ND										
Total VOCs	0	0	0	0	0	0	0	0	0	0	0

EFFLUENT - 2	40 Months 28-Apr-03	41 Months 29-May-03	42 Months 30-Jun-03	43 months 31-Jul-03	44 months 22-Aug-03	45 Months 30-Sep-03	46 Months 28-Oct-04	47 Months 30-Nov-04	48 Months 18-Dec-04	49 Months 22-Jan-04	50 Months 14-Feb-04
Sampling Increment	0	0	0	0	0	0	0	0	0	0	0
Sample Date											
PID Reading (ppm)	0	0	0	0	0	0	0	0	0	0	0
Compound (ug/L)											
Benzene	ND										
Toluene	ND										
Ethylbenzene	ND										
Methyl Xylene	ND										
O Xylene	ND										
Naphthalene	NA										
Styrene	ND										
Total VOCs	0	0	0	0	0	0	0	0	0	0	0

NOTES AND ABBREVIATIONS:
 1. VOC's, volatile organic compounds
 2. ND, compound not detected above method detection limit (less than approximately 1 ug/L).
 3. NA, not analyzed
 4. INFLUENT: Vapor samples collected prior to sub-slab treatment.
 5. EFFLUENT - 1: Vapor samples collected after filtering through primary carbon treatment (acid carbon).
 6. EFFLUENT - 2: Vapor samples collected after filtering through secondary carbon treatment (acid carbon).
 7. Samples analyzed by gas chromatography or HPLC & Alish's laboratory.

TABLE II
 CHEMICAL ANALYSIS OF SUB-SLAB VENTING SYSTEM VAPOR SAMPLES
 129 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
 MALDEN, MASSACHUSETTS

INFLUENT Sampling Increment Sample Date	51 Months 31-Mar-04	52 Months 28-Apr-04	53 Months 28-May-04	54 months 28-Jun-04	55 months 30-Jul-04	56 Months 31-Aug-04	57 Months 14-Sep-04	58 Months 27-Oct-04	59 Months 30-Nov-04	60 Months 20-Dec-04	61 Months 25-Jan-05
PID Reading (ppm)	0	0	0	0	0	0	0	0	0	0	0
Compound (ug/L)											
Benzene	ND										
Toluene	ND										
Ethylbenzene	ND										
M&P Xylene	ND										
O Xylene	ND										
Naphthalene	NA										
Styrene	ND										
Total VOCs	0	0	0	0	0	0	0	0	0	0	0

EFFLUENT - 1 Sampling Increment Sample Date	51 Months 31-Mar-04	52 Months 28-Apr-04	53 Months 28-May-04	54 months 28-Jun-04	55 months 30-Jul-04	56 Months 31-Aug-04	57 Months 14-Sep-04	58 Months 27-Oct-04	59 Months 30-Nov-04	60 Months 20-Dec-04	61 Months 25-Jan-05
PID Reading (ppm)	0	0	0	0	0	0	0	0	0	0	0
Compound (ug/L)											
Benzene	ND										
Toluene	ND										
Ethylbenzene	ND										
M&P Xylene	ND										
O Xylene	ND										
Naphthalene	NA										
Styrene	ND	14	ND								
Total VOCs	0	14	0	0	0	0	0	0	0	0	0

EFFLUENT - 2 Sampling Increment Sample Date	51 Months 31-Mar-04	52 Months 28-Apr-04	53 Months 28-May-04	54 months 28-Jun-04	55 months 30-Jul-04	56 Months 31-Aug-04	57 Months 14-Sep-04	58 Months 27-Oct-04	59 Months 30-Nov-04	60 Months 20-Dec-04	61 Months 25-Jan-05
PID Reading (ppm)	0	0	0	0	0	0	0	0	0	0	0
Compound (ug/L)											
Benzene	ND										
Toluene	ND										
Ethylbenzene	ND										
M&P Xylene	ND										
O Xylene	ND										
Naphthalene	NA										
Styrene	ND										
Total VOCs	0	0	0	0	0	0	0	0	0	0	0

NOTES AND ABBREVIATIONS:
 1. VOCs: volatile organic compounds.
 2. ND: compound not detected above method detection limit (see data spreadsheet) (ug/L).
 3. NA: not analyzed.
 4. INFLUENT: Vapor samples collected prior to carbon treatment.
 5. EFFLUENT - 1: Vapor samples collected after flowing through primary carbon treatment drum (first carbon).
 6. EFFLUENT - 2: Vapor samples collected after flowing through secondary carbon treatment drum (second carbon).
 7. Samples analyzed by gas chromatograph at Liberty & Aldrich Laboratory.

TABLE II
 CHEMICAL ANALYSIS OF SUB-SLAB VENTING SYSTEM VAPOR SAMPLES
 129 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
 MALDEN, MASSACHUSETTS

INFLUENT Sampling Increment Sample Date	62 Months 28-Feb-05	63 Months 21-Mar-05
PID Reading (ppm)	0	0
Compound (ug/L)		
Benzene	ND	ND
Toluene	ND	ND
Ethylbenzene	ND	ND
M&P Xylene	ND	ND
O Xylene	ND	ND
Naphthalene	NA	NA
Styrene	ND	ND
Total VOCs	0	0

EFFLUENT - 1 Sampling Increment Sample Date	62 Months 28-Feb-05	63 Months 21-Mar-05
PID Reading (ppm)	0	0
Compound (ug/L)		
Benzene	ND	ND
Toluene	ND	ND
Ethylbenzene	ND	ND
M&P Xylene	ND	ND
O Xylene	ND	ND
Naphthalene	NA	NA
Styrene	ND	ND
Total VOCs	0	0

EFFLUENT - 2 Sampling Increment Sample Date	62 Months 28-Feb-05	63 Months 21-Mar-05
PID Reading (ppm)	0	0
Compound (ug/L)		
Benzene	ND	ND
Toluene	ND	ND
Ethylbenzene	ND	ND
M&P Xylene	ND	ND
O Xylene	ND	ND
Naphthalene	NA	NA
Styrene	ND	ND
Total VOCs	0	0

NOTES AND ABBREVIATIONS
 1. VOCs - volatile organic compounds
 2. ND - compound not detected above method detection limit (see that data appendix) (ug/L)
 3. NA - not analyzed
 4. INFLUENT - Vapor samples collected prior to carbon treatment
 5. EFFLUENT - 1 - Vapor samples collected after flowing through primary carbon treatment then lead carbon
 6. EFFLUENT - 2 - Vapor samples collected after flowing through secondary carbon treatment then lead carbon
 7. Samples analyzed by gas chromatograph or HPLC at Altech Laboratory.

TABLE III
 SUB-SLAS VENTING SYSTEM MONITORING DATA
 126 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
 MALDEN, MASSACHUSETTS

Monitoring Date	Time	Influent Concentrations PID (ppm)	Influent Concentrations H2A GC (ug/L)	Effluent Concentrations Effluent - 1 (ppm)	Effluent - 3 (ppm)	Outdoor Temp	Outlet Vapor Temp	Flow Velocity (M/min) Influent	Flow Velocity (M/min) Effluent	System Vacuum and Pressure (" water) Blower	Drumout Discharge	Vacuum at Extraction Points (" water) EP-1 EP-2 EP-3 EP-4 EP-5						
November 16, 1999	4:40	0		0	0		82	0	0	0	0	0	0	0	0	0	0	0
November 16, 1999	5:47	82.4	445	5	5		100.5	750	1500	7.5	0	40	0	0	0	0	0	0
November 16, 1999	7:00	120		0	0		90	750	1500	7.75	1	40	0	0	0	0	0	0
November 17, 1999	1:02	102		0	0		102	390	1450	8	1	40	0	0	0	0	0	0
November 17, 1999	7:05	122		0	0		101	390	1450	8.5	1	40.5	0	0	0	0	0	0
November 18, 1999	7:25	105		0	0		112	390	1450	8	1	41	0	0	0	0	0	0
November 18, 1999	7:10	69		0	0	57	121	390	1450	8	1.5	40	0	0	0	0	0	0
November 18, 1999	17:05	44.4		17.1	0	55	132	390	1450	8.5	1.2	40	0	0	0	0	0	0
November 20, 1999	14:07	27.6		94.3	0	56	130	390	1450	8.5	1.3	40	0	0	0	0	0	0
November 21, 1999	9:15	22.5		42.8	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
November 21, 1999	9:27	23.7		0	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
November 21, 1999	9:44	23.7		0	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
November 21, 1999	9:50	23.7		17.2	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
November 23, 1999	7:50	45		50	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
November 24, 1999	4:15	24		0	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
November 25, 1999	7:25	15.5		0	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
November 27, 1999	8:45	12		5.5	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
November 29, 1999	7:30	10.5		4.7	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
November 30, 1999	4:35	10.5		183	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
December 2, 1999	7:25	5.4		0	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
December 6, 1999	7:20	3		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
December 8, 1999	9:20	2		40	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
December 14, 1999	9:20	0.6		0	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
December 17, 1999	9:32	0.2		0	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
December 22, 1999	18:40	0.2		0	0	55	129	390	1450	8	2.0	40	0	0	0	0	0	0
January 4, 2000	9:25	0.1		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 4, 2000	18:05	0.3		1.7	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 5, 2000	12:19	0.1		0.2	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 6, 2000	11:29	0.1		0.1	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 10, 2000	19:15	0.2		0.2	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 14, 2000	70:45	0.1		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 19, 2000	3:25	0		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 19, 2000	7:05	102		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 19, 2000	17:35	247		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 20, 2000	6:25	310		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 20, 2000	11:30	290		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 21, 2000	5:30	240		186	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 21, 2000	13:55	255		243	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 22, 2000	13:20	232		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 24, 2000	6:45	223		109	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 25, 2000	7:00	195		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 25, 2000	16:10	181		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 26, 2000	7:45	215		79	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 26, 2000	12:30	228		152	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 27, 2000	8:00	180		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 27, 2000	13:30	204		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 28, 2000	7:50	165		46	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 28, 2000	13:20	166		145	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 29, 2000	12:10	149		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 30, 2000	5:30	185		96	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
January 31, 2000	8:00	183		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
February 1, 2000	9:15	134		62	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
February 1, 2000	19:45	168		108	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
February 2, 2000	9:00	154		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
February 3, 2000	16:20	157		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
February 4, 2000	9:00	146		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
February 4, 2000	13:40	138		26	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
February 5, 2000	12:30	152		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
February 6, 2000	7:00	150		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
February 7, 2000	8:45	138		0	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
February 7, 2000	20:45	127		25	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0
February 8, 2000	8:00	124		59	0	55	129	390	1450	8.5	2.0	40	0	0	0	0	0	0

TABLE III
 SUB-SLAB VENTING SYSTEM MONITORING DATA
 129 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
 MALDEN, MASSACHUSETTS

Monitoring Date	Time	Influent Concentrations PID (ppm)	Influent Concentrations HMA GC (ug/L)	Effluent Concentrations Effluent - 1 (ppm)	Effluent - 2 (ppm)	Outdoor Temp	Outdoor Vapor Temp	Flow Velocity (ft/min) Influent	Flow Velocity (ft/min) Effluent	System Vacuum and Pressure (in. water) Blower	Knockout Drum	Discharge	Vacuum at Extraction Points (in. water) EP-1 EP-2 EP-3 EP-4 EP-5
February 8, 2000	17:20	117		0	0	25	90	1500	1400	17	11.5	36	
February 9, 2000	7:45	120		0	0	15	96	1500	1400	18	11	30	
February 9, 2000	8:30	129		0	0	40	102	1500	1400	17.5	11	36	
February 10, 2000	18:30	134		40	0	35	102	1500	1400	17.5	11.5	38	
February 11, 2000	7:00	127		105	0	35	103	1500	1400	17	13.5	35	
February 12, 2000	7:00	126		0	0	0	100	1500	1400	17.5	11	36	
February 13, 2000	15:00	120		0	0	25	100	1500	1400	17.5	11	36.5	
February 14, 2000	17:10	76		0	0	50	103	1500	1400	17.5	11	35	
February 15, 2000	8:10	82	520	0.3	0	30	102	1500	1400	17.5	11	36	
February 16, 2000	7:30	85		48	0	35	101	1500	1400	17.5	11	30	
February 18, 2000	7:00	78		0	0	20	100	1500	1400	17	10.5	37	
February 19, 2000	7:00	77		0	0	20	100	1500	1400	17	10.5	34	
February 20, 2000	7:00	77		0	0	30	100	1500	1400	17.5	10.5	34	
February 21, 2000	8:30	102		0	0	35	101	1500	1400	17.5	11	35	
February 22, 2000	16:50	81		0.5	0	50	108	1500	1400	17.5	11.5	35.5	
February 23, 2000	14:00	82		77	0	50	107	1500	1400	17.5	11	35	
February 24, 2000	18:30	86		77	0	50	112	1500	1400	17.5	11	34.5	
February 25, 2000	6:30	86		0	0	35	108	1500	1400	17.5	11.5	35	
February 26, 2000	19:30	90		1	0	40	112	1500	1400	17.5	11.5	38	
February 27, 2000	7:45	90		0	0	50	112	1500	1400	17.5	12	38	
February 28, 2000	7:00	94		0	0	32	100	1500	1400	17.5	12	35	
February 29, 2000	8:00	71		0	0	50	110	1500	1400	17.5	11.5	35	
March 1, 2000	10:30	63		0	0	30	106	1500	1400	17.5	11	35	
March 2, 2000	10:00	53		22	0	40	106	1500	1400	17	11.5	35.5	
March 3, 2000	7:45	32		46	0	55	106	1500	1400	17.5	11.5	35.5	
March 4, 2000	9:00	90		0	0	40	106	1500	1400	17.5	11.5	35.5	
March 5, 2000	8:00	94		7	0	40	106	1500	1400	17.5	11.5	35.5	
March 6, 2000	8:30	59		21	0	50	110	1500	1400	17	11.5	39	
March 7, 2000	19:00	47		0	0	60	111	1500	1400	17	11	38	
March 8, 2000	8:30	35		0	0	70	114	1500	1400	17	11	36	
March 9, 2000	17:30	32		19	0	45	114	1500	1400	17	11	35	
March 10, 2000	8:15	82		21	0	45	103	1500	1400	17	11	35	
March 11, 2000	16:30	48		0	0	45	105	1500	1400	17.5	11	38	
March 12, 2000	13:30	40		0	0	30	105	1500	1400	17.5	11.5	39	
March 13, 2000	9:30	45		0	0	30	105	1500	1400	17.5	11.5	39	
March 14, 2000	8:50	81	974	4	0	35	110	1500	1400	17.5	11.5	39	
March 15, 2000	8:45	8		3	0	45	110	1500	1400	17	11.5	39	
March 16, 2000	20:30	86		52	0	55	111	1500	1400	17.5	11	38	
March 17, 2000	9:15	69		58	0	65	114	1500	1400	17.5	11	36	
March 18, 2000	17:15	85		66	0	65	117	1500	1400	17.5	11	36	
March 19, 2000	12:45	48		38	0	60	104	1500	1400	17.5	11	34	
March 20, 2000	18:45	52		0	0	32	104	1500	1400	17.5	11	35	
March 21, 2000	19:30	15		0	0	30	102	1500	1400	17	11	35	
March 22, 2000	7:30	38		0	0	30	104	1500	1400	17.5	11	35	
March 23, 2000	18:00	20		0	0	45	112	1500	1400	17.5	11	35	
March 24, 2000	18:30	28		0	0	45	105	1500	1400	17.5	10	34.5	
March 25, 2000	8:00	28		0	0	40	107	1500	1400	17.5	10.5	34.5	
March 26, 2000	21:00	32		0	0	45	110	1500	1400	17.5	10.5	34.5	
March 27, 2000	9:45	34		0	0	65	113	1500	1400	17.5	10.5	34.5	
March 28, 2000	13:00	38		0	0	65	117	1500	1400	17.5	10.5	34.5	
March 29, 2000	17:45	38		0	0	60	112	1500	1400	17	11	34	
March 30, 2000	11:30	32		28	0	65	119	1500	1400	17.5	11	33	
March 31, 2000	13:15	47		29	0	60	114	1500	1400	18	12.5	32	
March 28, 2000	20:00	37	202	28	0	50	112	1500	1400	18	12	33	
March 29, 2000	9:00	38		0	0	50	112	1500	1400	18	12	33	
March 29, 2000	18:00	20		0	0	45	112	1500	1400	17.5	12	33	

TABLE II
 SUB-SLAB VENTING SYSTEM MONITORING DATA
 120 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
 MALDEN, MASSACHUSETTS

Monitoring Date	Time	Influent Concentrations PID (ppm)	Influent Concentrations HMA GC (ug/L)	Effluent Concentrations Effluent -1 (ppm)	Effluent -2 (ppm)	Outdoor Temp	Outlet Vapor Temp	Flow Velocity (ft/min) Influent	Flow Velocity (ft/min) Effluent	System Vacuum and Pressure (" water) Blower Knockout	System Vacuum and Pressure (" water) Discharge Drum	Vacuum at Extraction Points (" water) EP-1 EP-2 EP-3 EP-4 EP-5
March 30, 2000	9:30	11		0	0	50	112	1500	1490	17.5	11	33
March 30, 2000	16:15	35		0	0	45	113	1500	1480	17.5	11	33
March 31, 2000	7:30	30		0	0	50	109	1500	1480	15	12	33.5
April 1, 2000	12:30	28		0	0	50	119	1500	1480	17.5	11.5	33
April 2, 2000	18:30	15		0	0	55	119	1500	1490	17.5	11	33
April 3, 2000	14:45	26		16	0	62	117	1500	1490	19	11	33
April 3, 2000	20:30	36		0	0	55	117	1500	1480	19	11	33
April 4, 2000	13:45	21		0	0	60	121	1500	1490	17.5	11	33
April 5, 2000	10:30	21		0	0	45	116	1500	1490	18	11.5	33
April 6, 2000	8:00	21		0	0	40	111	1500	1490	18	11	33
April 7, 2000	8:00	27.0		24.0	0.0	50	117	1500	1490	18	11	33
April 7, 2000	7:15	45.0		20.0	0.0	55	117	1500	1450	16	11	33
April 8, 2000	15:45	21.6		0.0	0.0	40	113	1500	1480	17.5	11	33
April 10, 2000	13:00	32.0		6.0	0.0	50	112	1500	1490	17.5	11	34
April 11, 2000	9:45	47.0		34.0	0.0	45	111	1500	1490	17.5	11	34
April 12, 2000	14:15	25.0		13.0	0.0	45	119	1500	1480	17.5	11	34
April 13, 2000	19:00	36.0		10.0	0.0	50	112	1500	1490	17.5	11	34
April 14, 2000	7:00	50.0		6.0	0.0	50	111	1500	1490	17.5	11	34
April 17, 2000	6:45	48.0		0.0	0.0	45	117	1500	1490	18.5	11	33.5
April 17, 2000	17:45	37.0		0.0	0.0	50	116	1500	1500	18	11	34
April 18, 2000	7:45	15.0		0.0	0.0	45	111	1500	1490	18	11	34
April 18, 2000	19:30	15.0		0.0	0.0	45	110	1500	1500	18	11	34
April 19, 2000	7:00	22.0		4.0	0.0	50	112	1500	1500	18	11	34
April 19, 2000	18:00	16.0		5.0	0.0	45	112	1500	1500	18	11	34
April 20, 2000	9:15	10.0		8.0	0.0	50	117	1500	1500	18	11	34
April 20, 2000	17:30	10.0		0.0	0.0	50	115	1500	1500	19	11	34
April 21, 2000	9:30	6.0		0.0	0.0	50	117	1500	1500	19	11	33
April 24, 2000	15:15	5.0		0.0	0.0	50	112	1500	1500	19	12	33
April 26, 2000	10:30	1.6	420	0.4	0.0	40	106	1500	1600	17.5	11	33
April 27, 2000	7:30	3.4		0.9	0.0	40	106	1500	1600	16	12	33
April 28, 2000	7:00	3.3		1.5	0.0	50	110	1500	1500	16	12	33
April 29, 2000	9:30	4.6		3.0	0.0	50	110	1500	1500	18	12	33
May 1, 2000	6:00	30.0		8.0	0.0	50	118	1500	1500	18	12	34
May 2, 2000	10:00	17.0		0.0	0.0	50	115	1500	1500	18	11	33
May 3, 2000	8:30	6.0		0.0	0.0	60	117	1500	1500	19	12	34
May 4, 2000	12:00	18.0		0.1	0.0	70	123	1500	1500	19	11.5	33
May 5, 2000	9:15	15.0		0.0	0.0	65	120	1500	1500	19	11	33
May 6, 2000	7:00	15.0		0.0	0.0	70	128	1500	1500	19	11.5	33
May 8, 2000	9:30	11.8		1.0	0.0	75	128	1500	1500	18	11	33
May 9, 2000	17:00	12.0		1.9	0.0	65	126	1500	1500	16	11	32.5
May 10, 2000	6:15	12.0		0.0	0.0	50	117	1500	1500	17.5	11	33
May 11, 2000	15:30	13.0		0.0	0.0	65	121	1500	1500	17.5	11	33
May 12, 2000	9:00	11.3		0.0	0.0	65	121	1500	1500	18	11.5	33
May 15, 2000	7:00	14.0		0.0	0.0	60	121	1500	1500	19	11	33
May 16, 2000	9:00	17.0		0.1	0.0	60	121	1500	1500	17.5	11	33
May 17, 2000	16:00	7.0		0.3	0.0	65	122	1500	1500	19	11	33
May 18, 2000	16:30	13.0		1.1	0.0	70	121	1500	1500	18	11.5	33
May 18, 2000	19:00	15.2		1.9	0.0	55	116	1500	1500	18	12	33
May 20, 2000	18:45	15.3		2.5	0.0	50	120	1500	1500	17	11	33
May 22, 2000	13:15	12.3		4.8	0.0	60	121	1500	1500	17.5	12	32.5
May 24, 2000	9:00	9.4		4.5	0.0	60	119	1500	1500	17.5	12.5	32.5
May 25, 2000	12:00	10.1	113	6.5	0.0	65	120	1500	1500	18	12	32
May 26, 2000	8:00	10.0		7.0	0.0	60	121	1500	1500	18	12	32
May 30, 2000	12:00	11.0		8.0	0.0	70	123	1500	1500	18	12	32.5
May 31, 2000	7:30	10.6		9.0	0.0	70	126	1500	1500	18	11.5	32
June 1, 2000	15:00	10.1		10.0	0.0	85	140	1500	1500	18	11	32
June 2, 2000	8:00	8.0		9.5	0.0	80	132	1500	1500	18	11	33
June 5, 2000	7:00	8.0		0.0	0.0	75	123	1500	1500	18	12	33
June 7, 2000	18:00	6.0		0.0	0.0	75	123	1500	1500	17.5	12	33
June 8, 2000	17:00	6.8		0.0	0.0	65	121	1500	1500	18	12	33
June 12, 2000	9:00	9.5		0.3	0.0	60	120	1500	1500	18	12.5	33

TABLE III
 SUB-SLAB VENTING SYSTEM MONITORING DATA
 126 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
 MALDEN, MASSACHUSETTS

Monitoring Date	Time	Influent Concentrations		Effluent Concentrations		Outdoor Temp	Outlet Vapor Temp	Flow Velocity (ft/min)		System Vacuum and Pressure (in water)		Vacuum at Extraction Points (in water)						
		PID (ppm)	H2A GC (ug/L)	Effluent - 1 (ppm)	Effluent - 2 (ppm)			Influent	Effluent	Blower	Knockout Drum	EP-1	EP-2	EP-3	EP-4	EP-5		
June 13, 2000	8:00	4.0		0.2	0.0	66	123	1500	1500	18	12.5	33						
June 14, 2000	9:00	3.3		0.1	0.0	60	122	1500	1500	16	12.5	33						
June 15, 2000	8:45	1.7		0.2	0.0	60	123	1500	1500	18	12.5	33						
June 17, 2000	8:15	9.0		2.0	0.0	75	133	1500	1500	10	12	33						
June 16, 2000	15:30	6.2		2.5	0.0	70	133	1500	1500	10	12.5	33						
June 20, 2000	9:00	5.7		2.2	0.0	70	134	1500	1500	10	12.2	33						
June 21, 2000	8:30	4.6		2.7	0.0	75	133	1500	1500	10	12.5	33						
June 21, 2000	9:15	3.9		2.6	0.0	60	134	1500	1500	17.5	12.5	32.5						
June 22, 2000	8:00	4.2	51	3.3	0.0	75	134	1500	1500	17.5	12.5	32.5						
June 23, 2000	9:30	3.7		3.4	0.0	75	139	1500	1500	17	12	30						
June 25, 2000	7:15	3.0		3.3	0.0	75	139	1500	1500	10	11.5	32.5						
June 26, 2000	7:15	3.0		3.3	0.0	75	139	1500	1500	10	11.5	32.5						
July 7, 2000	8:45	2.3		1.0	0.0	75	137	1500	1500	11	11	31						
July 8, 2000	10:00	2.9		0.0	0.0	70	135	1500	1500	15.5	11	33						
July 12, 2000	9:00	2.3		0.1	0.0	80	138	1500	1500	15.5	11	33						
July 13, 2000	8:00	2.3		0.1	0.0	80	137	1500	1500	16	11	33						
July 14, 2000	9:00	2.3		0.2	0.0	85	137	1500	1500	16	11	32.5						
July 20, 2000	17:00	2.2		0.4	0.0	80	137	1500	1500	16	11	33						
July 20, 2000	17:00	2.2		0.4	0.0	80	137	1500	1500	16	11	33						
July 31, 2000	15:30	1.9		0.7	0.0	80	137	1500	1500	10	11	33						
August 2, 2000	19:30	1.6		0.8	0.0	70	137	1500	1500	17	11	33						
August 7, 2000	7:30	1.5		0.8	0.0	75	137	1500	1500	16	11	33						
August 15, 2000	8:15	1.3		0.2	0.0	70	136	1500	1500	16	11	33						
August 17, 2000	8:15	1.2		0.3	0.0	70	136	1500	1500	16	11	34						
August 21, 2000	15:30	1.1		1.2	0.0	70	137	1500	1500	11	11	33						
August 26, 2000	15:30	0.6		0.8	0.0	66	140	1500	1500	17.5	11.5	33						
August 26, 2000	15:30	0.9		0.8	0.0	66	140	1500	1500	17.5	11.5	33						
September 1, 2000	19:30	0.7		0.9	0.0	80	128	1500	1500	17.5	11.5	33						
September 5, 2000	7:30	0.6		0.9	0.0	80	140	1500	1500	17.5	11.5	33						
September 10, 2000	19:15	0.3		0.4	0.0	75	140	1500	1500	17.5	11.5	33						
September 12, 2000	7:30	0.4		0.4	0.0	70	139	1500	1500	17.5	11.5	34						
September 20, 2000	14:15	0.7		0.0	0.0	80	135	1500	1500	17.5	11.5	34						
September 27, 2000	9:15	0.4		0.0	0.0	75	137	1500	1500	16	12	34						
October 2, 2000	7:30	0.2		0.0	0.0	60	120	1500	1500	18	11	33.5						
October 2, 2000	8:00	0.1		0.0	0.0	55	125	1500	1500	8	11	33.5						
October 2, 2000	8:00	0.1		0.0	0.0	55	121	1500	1500	8	11	33.5						
October 11, 2000	13:15	0		0	0	65	135	1500	1500	6.5	2	38						
October 23, 2000	19:30	0		0	0	60	130	1500	1500	3	2	38						
October 26, 2000	17:00	0		0	0	60	132	1500	1500	3	2	38						
October 26, 2000	19:30	0		0	0	55	125	1500	1500	8.5	3	38						
October 31, 2000	17:30	0		0	0	60	130	1500	1500	8.5	3	38						
November 3, 2000	17:30	0		0	0	60	130	1500	1500	8	3	38						
November 8, 2000	17:30	0		0	0	50	121	1500	1500	8	2	38						
November 13, 2000	17:30	0		0	0	45	115	1500	1500	10	2	38						
November 17, 2000	17:00	0		0	0	35	109	1500	1500	10	2	38						
November 22, 2000	13:45	0		0	0	32	108	1500	1500	10.5	2.5	38						
November 23, 2000	17:00	0		0	0	45	107	1500	1500	11	2	38						
December 4, 2000	6:00	0		0	0	30	105	1500	1500	13.5	2.5	38						
December 11, 2000	11:00	0		0	0	40	108	1500	1500	13	2	38						
December 21, 2000	8:45	0		0	0	20	97	1500	1500	13.5	2.5	38						
December 27, 2000	8:00	0		0	0	20	92	1500	1500	14	2	38						
December 28, 2000	10:00	0		0	0	25	91	1500	1500	14	2	38						
December 31, 2000	11:00	0		0	0	25	91	1500	1500	14	2	38						
January 3, 2001	16:45	0		0	0	20	82	1500	1500	14	2	38						
January 4, 2001	9:00	0		0	0	20	86	1500	1500	14	2	37						
January 8, 2001	17:30	0		0	0	25	101	1500	1500	16	2	38						
January 15, 2001	7:30	0		0	0	20	96	1500	1500	17	2	38						
January 19, 2001	15:00	0		0	0	20	97	1500	1500	17.5	2	38						
January 22, 2001	9:00	0		0	0	15	96	1500	1500	17.5	2	34						
January 24, 2001	8:30	0		0	0	25	105	1500	1500	18	2	34						
January 26, 2001	7:30	0		0	0	25	117	1500	1500	18.5	2.5	33						
January 31, 2001	9:00	0		0	0	45	117	1500	1500	16.5	2.5	33						
February 2, 2001	9:00	0		0	0	30	107	1500	1500	19	2.5	34						
February 5, 2001	7:30	0		0	0	30	115	1500	1500	19.5	2.5	33						

System Down, re-started

TABLE III
SUB-SLAB VENTING SYSTEM MONITORING DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

Monitoring Date	Time	Influent Concentrations PID (ppm)	Influent Concentrations H2A GC (ug/L)	Effluent Concentrations Effluent - 1 (ppm)	Effluent - 2 (ppm)	Outdoor Temp	Outlet Vapor Temp	Flow Velocity (ft/min) Influent	Flow Velocity (ft/min) Effluent	System Vacuum and Pressure (" water) Knockout Drum	Blower	System Vacuum and Pressure (" water) Discharge	EP-1 EP-2	Vacuum at Extraction Points (" water) EP-3 EP-4	EP-5
February 7, 2001	10:00	0		0	0	40	117	390	1900	2.5	20	33			
February 9, 2001	9:30	0		0	0	40	114	390	1900	2	20	34			
February 12, 2001	9:30	0		0	0	15	87	390	1900	2	20	34			
February 14, 2001	7:30	0		0	0	25	106	390	1900	2.5	20	33			
February 15, 2001	10:45	0		0	0	40	88	390	1900	2.5	20	33			
February 16, 2001	7:30	0		0	0	25	105	390	1900	2.5	20	33			
February 20, 2001	9:15	0		0	0	40	114	390	1900	2.5	20.5	33			
February 23, 2001	7:30	0		0	0	30	108	390	1900	2.5	20.5	33			
February 27, 2001	9:00	0	0	0	0	30	110	390	1900	2.5	21	32.5			
March 1, 2001	7:00	0		0	0	25	100	390	1900	2	20	32.5			
March 2, 2001	9:00	0		0	0	20	98	390	1900	2	20	32.5			
March 5, 2001	12:00	0		0	0	30	100	390	1900	2	20.5	32			
March 7, 2001	13:00	0		0	0	30	96	390	1900	2	21	32			
March 8, 2001	7:00	0		0	0	30	114	390	1900	2	21	32			
March 9, 2001	6:00	0		0	0	30	114	390	1900	2	21	32			
March 12, 2001	7:30	0		0	0	30	115	390	1900	2	21	32			
March 14, 2001	10:00	0		0	0	40	118	390	1900	2	21	32			
March 15, 2001	6:00	0		0	0	30	113	390	1900	2	21	32			
March 19, 2001	6:00	0		0	0	30	116	390	1900	2	21.5	32			
March 20, 2001	6:00	0		0	0	35	117	390	1900	2	21.5	32			
March 22, 2001	6:00	0		0	0	40		390	1900	2	21.5	32			
March 23, 2001	9:00	0		0	0	35	112	390	1900	2	21	32			
March 26, 2001	9:30	0	0	0	0	30	105	390	1900	2	21	32			
March 28, 2001	15:00	0		0	0	30	118	390	1900	2.5	21.5	32			
March 30, 2001	8:00	0		0	0	40	117	390	1900	3	32	32			
April 2, 2001	9:45	0		0	0	45	124	390	1900	3	32	32			
April 4, 2001	10:30	0		0	0	65	133	390	1900	9.5	37	37			
April 10, 2001	13:00	0		0	0	55	117	390	1900	10	4	38			
April 13, 2001	10:00	0		0	0	90	117	390	1900	10	4	37.5			
April 16, 2001	10:00	0		0	0	45	117	390	1900	10	4	38			
April 18, 2001	15:00	0		0	0	60	129	390	1900	10	4	38			
April 20, 2001	16:00	0		0	0	60	137	390	1900	10	4.5	36			
April 24, 2001	15:45	0		0	0	65	151	390	1900	10	4.5	36			
April 25, 2001	16:00	0		0	0	60	129	390	1900	10	4	38			
April 27, 2001	11:45	0		0	0	65	128	390	1900	10	4	38			
April 30, 2001	19:00	0		0	0	65	126	390	1900	10	4	38			
May 1, 2001	8:30	0		0	0	80	120	390	1900	10	4	38			
May 4, 2001	15:00	0		0	0	70	136	390	1900	10	4.5	37.5			
May 7, 2001	8:00	0		0	0	65	122	390	1900	10	4.5	37.5			
May 9, 2001	6:00	0		0	0	85	136	390	1900	10	5	37			
May 11, 2001	7:30	0		0	0	70	142	390	1900	10	5	37			
May 14, 2001	10:00	0		0	0	65	124	390	1900	10	4	37.5			
May 15, 2001	16:00	0		0	0	70	122	390	1900	10	4	37.5			
May 16, 2001	7:30	0		0	0	70	119	390	1900	10	4	38			
May 22, 2001	14:00	0		0	0	75	126	390	1900	10	4	38			
May 24, 2001	7:00	0		0	0	70	122	390	1900	10	4	38			
May 25, 2001	10:00	0		0	0	60	117	390	1900	10	4	38			
May 31, 2001	8:00	0		0	0	70	124	390	1900	10	4.5	38			
June 1, 2001	6:00	0		0	0	70	140	390	1900	10.5	4.5	38			
June 4, 2001	13:00	0		0	0	75	140	390	1900	10.5	4.5	37			
June 6, 2001	9:30	0		0	0	70	137	390	1900	10.5	5	37			
June 8, 2001	13:30	0		0	0	80	138	390	1900	10.5	5	36			
June 11, 2001	9:30	0		0	0	75	140	390	1900	10.5	5	36			
June 13, 2001	7:00	0		0	0	80	140	390	1900	10.5	5	36			
June 15, 2001	15:00	0		0	0	80	140	390	1900	11	5	36			
June 18, 2001	9:00	0		0	0	75	140	390	1900	11	5	36.5			
June 21, 2001	9:30	0		0	0	80	140	390	1900	11	5	37			
June 23, 2001	8:00	0		0	0	80	140	390	1900	11	5	38			
June 25, 2001	12:00	0		0	0	85	151	390	1900	11	5	38			
June 27, 2001	10:00	0	3	0	0	85	154	390	1900	11	5	38			

System down, re-started

1 1 1 0 1

Revised At Filter

TABLE III
SUB-SLAB VENTING SYSTEM MONITORING DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

Monitoring Date	Time	Influent Concentrations PID (ppm)	Influent Concentrations H2A GC (ug/L)	Effluent Concentrations Effluent - 1 (ppm)	Effluent - 2 (ppm)	Outdoor Temp	Outdoor Vapor Temp	Flow Velocity (ft/min) Influent	Flow Velocity (ft/min) Effluent	System Vacuum and Pressure (" water) Knockout Drum	Blower Discharge	Vacuum at Extraction Points (" water) EP-1 EP-2 EP-3 EP-4 EP-5
July 3, 2001	8:00	0		0	0	80	140	300	1500	5	37	
July 5, 2001	7:30	0		0	0	85	150	360	1500	2	37	
July 6, 2001	8:00	0		0	0	90	155	360	1500	5	38	
July 8, 2001	7:00	0		0	0	85	146	360	1500	3	37	
July 10, 2001	16:00	0		0	0	90	152	360	1500	3	37	
July 11, 2001	7:30	0		0	0	85	150	360	1500	5	37	
July 13, 2001	17:30	0		0	0	85	150	360	1500	5	37	
July 17, 2001	7:15	0		0	0	75	137	300	1500	5	37	
July 20, 2001	11:30	0		0	0	85	157	360	1500	11.5	38	
July 24, 2001	8:30	0		0	0	80	144	300	1500	5	37	
July 27, 2001	8:00	0	0	0	0	70	132	360	1500	11.5	37	
July 28, 2001	11:00	0		0	0	80	145	360	1500	5	36	
August 5, 2001	15:00	0		0	0	80	120	360	1500	5	36	System Down, re-started
August 7, 2001	19:00	0		0	0	95	157	360	1500	12	39	
August 8, 2001	9:00	0		0	0	90	145	360	1500	5	35.5	
August 10, 2001	18:00	0		0	0	80	145	360	1500	5	35.5	
August 13, 2001	7:30	0		0	0	75	145	360	1500	5	35.5	
August 16, 2001	10:00	0		0	0	80	144	360	1500	13	35.5	
August 20, 2001	8:15	0		0	0	75	144	360	1500	5	35	
August 24, 2001	8:30	0		0	0	75	144	360	1500	5	35	
August 27, 2001	7:30	0		0	0	80	145	360	1500	5	34	
August 29, 2001	8:00	0		0	0	75	144	360	1500	5	35	
August 31, 2001	8:00	0	1	0	0	75	143	360	1500	5	34	
September 14, 2001	11:15	0		0	0	85	128	360	1500	15.5	34	
September 21, 2001	13:30	0		0	0	85	140	360	1500	17	34	
September 30, 2001	19:00	0	3	0	0	75	142	360	1500	4	34	1
October 4, 2001	8:00	0		0	0	75	138	360	1500	4	34	1
October 5, 2001	12:34	0		0	0	65	85	360	1500	20	16	0
October 8, 2001	11:50	0		0	0	68	132	360	1500	4	10.5	
October 10, 2001	10:40	0		0	0	65	135	360	1500	4	18.5	
October 24, 2001	12:15	0		0	0	75	150	360	1500	22	19	
October 26, 2001	12:00	0	0	0	0	55	130	360	1500	4.5	32	
October 31, 2001	14:30	0		0	0	55	130	360	1500	4	17.5	
November 10, 2001	11:15	0		0	0	55	122	360	1500	2	32	
November 12, 2001	10:30	0		0	0	55	122	360	1500	2	32	
November 16, 2001	14:30	0		0	0	55	122	360	1500	2	32	
November 21, 2001	11:20	0		0.1	0	70	148	360	1500	3.5	30	
November 25, 2001	8:00	0		0	0	55	130			4	30	System Down, electrical repairs made, system re-started
November 27, 2001	13:15	0		0	0	45	114			3	31	
November 30, 2001	8:45	0	4	0	0	75	148			4.5	29	
December 6, 2001	12:45	0		0	0	65	140			4.5	29	
December 7, 2001	14:45	0		0	0	65	140			4.5	29	
December 12, 2001	12:00	0		0	0	55	118			4.5	34	
December 19, 2001	14:15	0	0	0	0	45	112	450	1500	4.5	38	
December 21, 2001	13:10	0		0	0	40	98	450	1500	4.5	38	
December 25, 2001	13:15	0		0	0	35	82	750	1500	12	37	
January 3, 2002	7:45	0		0	0	35	106	1000	1400	2	39	
January 4, 2002	11:15	0		0	0	35	104	800	1250	3	39	
January 7, 2002	13:30	0		0	0	55	108			3	37	
January 11, 2002	13:00	0		0	0	55	108			3	38	
January 15, 2002	15:30	0		0	0	45	110	500	1500	11	38	
January 22, 2002	12:00	0		0	0	55	111	500	1400	3	38	
January 26, 2002	15:40	0		0	0	60	120	700	1250	3.5	38	
January 31, 2002	7:00	0	0	0	0	35	94			3	40	
February 8, 2002	8:45	0		0	0	35	102	750	1500	3	38	
February 12, 2002	7:00	0		0	0	35	90			3	38	
February 27, 2002	15:15	0	0	0	0	34	104	1200	1400	3	38	System Down, re-started
March 6, 2002	16:40	0		0	0	32	100	700	1500	3.5	38	
March 16, 2002	9:30	0	0	0	0	55	130	700	1400	4	38	
March 26, 2002	13:30	0	0	0	0	55	130	700	1400	4	38	

TABLE III
SUB-SLAB VENTING SYSTEM MONITORING DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

Monitoring Date	Time	Influent Concentrations PID (ppm)	HMA GC (ug/L)	Effluent Concentrations Effluent - 1 (ppm)	Effluent - 2 (ppm)	Outdoor Vapor Temp	Outlet Temp	Flow Velocity (ft/min) Influent	Flow Velocity (ft/min) Effluent	System Vacuum and Pressure Blower Knockout Drum	System Vacuum at Extraction Points (in. water) EP-1 EP-2 EP-3 EP-4 EP-5	
April 5, 2002	14:00			0	0	55	136			4	37	
April 8, 2002	17:30	0		0	0	85	124	550	1250	11	10	
April 18, 2002	8:45	0		0	0	55	124			4	36	
April 26, 2002	15:00			0	0	55	110	450	1450	11	11	
May 2, 2002				0	0	69	130	500	1350	12	4	
May 8, 2002	15:30			0	0	65	148	450	1250	12	5	
May 16, 2002	16:00			0	0	60	130	500	1400	12	4	
May 20, 2002	12:30			0	0	70	144	450	1250	12	5	
May 22, 2002	16:10			0	0	70	144	425	1250	13	5	
May 31, 2002	16:30			0	0	80	136			1	22	
June 5, 2002	13:00			0	0	70	131	500	1300	13	4	
June 12, 2002	16:30			0	0	75	144	425	1250	13	4	
June 19, 2002	14:40			0	0	85	158			5	34	
June 27, 2002	11:30			0	0	90	172			5	34	
July 3, 2002	15:30			0	0	80	158	600	1250	17	4	
July 6, 2002	12:00			0	0	75	159	1000	1500	20	4	
July 16, 2002	15:30			0	0	65	174	500	1000	22	5	
July 24, 2002	14:00			0	0	70	179	500	1100	25	5	
July 30, 2002	12:30			0	0	80	182			4.5	28	
August 9, 2002	14:15			0	0	85	172	420	1100	27	5	
August 16, 2002	12:30			0	0	70	170			1	1	
August 23, 2002	16:00			0	0	60	148			4.5	28	
August 27, 2002	12:20			0	0	55	124	140	1200	31	4.5	
September 11, 2002	16:00			0	0	60	150			30	4	
September 12, 2002	14:00			0	0	48	140			32	4	
October 4, 2002	14:45			0	0	30	124			32	4	
October 6, 2002	14:45			0	0	35	1220	450	1150	32	4	
October 14, 2002	8:30			0	0	40	128			32	4	
October 25, 2002	15:30			0	0	10	116			32	4	
October 28, 2002	16:30			0	0	35	122			34	4	
November 2, 2002	13:30			0	0	40	136			32	3	
November 12, 2002	15:00			0	0	35	122			32	3	
December 2, 2002	15:00			0	0	30	124			32	4	
December 13, 2002	15:00			0	0	35	128			32	4	
December 17, 2002	15:30			0	0	35	118			32	1	
December 27, 2002	15:45			0	0	30	120			34	2	
December 31, 2002	15:30			0	0	30	120			34	2	
January 10, 2003	14:00			0	0	35	128			34	3	
January 14, 2003	9:30			0	0	40	136			34	3	
January 20, 2003	10:30			0	0	35	118			32	1	
January 26, 2003	10:30			0	0	35	118			32	1	
January 28, 2003	12:45			0	0	30	120			34	2	
February 7, 2003	16:00			0	0	30	120			34	2	
February 10, 2003	11:30			0	0	35	128			34	3	
February 21, 2003	12:00			0	0	40	136			34	3	
February 26, 2003	12:00			0	0	40	136			34	3	
March 17, 2003	13:00			0	0	50	120			9	3	
March 18, 2003	13:30			0	0	55	120	500	1250	9	3	
March 24, 2003	11:00			0	0	55	120	500	1250	9	3	
March 25, 2003	13:30			0	0	60	135	500	1250	9	3	
March 26, 2003	15:00			0	0	39	120			9	2	
March 31, 2003	12:30			0	0	45	122	500	1250	9	2	
April 4, 2003	17:30			0	0	45	122	300	>6000	5	0	
April 7, 2003	12:20			0	0	45	122			5	0	
April 8, 2003	12:00			0	0	3	0			3	0	
April 9, 2003	14:00			0	0	9.5	5			9.5	5	
April 11, 2003	17:00			0	0	50	140	490	1400	9.5	5	
April 14, 2003	17:30			0	0	60	140			9.5	5	
April 17, 2003	16:00			0	0	60	140			9.5	5	
April 25, 2003	13:55			0	0	50	125			9.5	5	
April 28, 2003	7:30			0	0	50	125			9.5	5	

TABLE III
 SUB-SLAB VENTING SYSTEM MONITORING DATA
 129 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
 MALDEN, MASSACHUSETTS

Monitoring Date	Time	Influent Concentrations		Effluent Concentrations		Outdoor Temp	Outlet Vapor Temp	Flow Velocity (ft/min)		System Vacuum and Pressure (in. water)	Vacuum at Extraction Points (in. water)						
		PHD (ppm)	HMA GC (ug/L)	Effluent - 1 (ppm)	Effluent - 2 (ppm)			Influent	Effluent		Blower	Knockout Drum	Discharge	EP-1	EP-2	EP-3	EP-4
May 5, 2003	18:30	0		0		45	130			0.5	5						
May 14, 2003	12:00	0		0		60	135			0.5	4						
May 21, 2003	15:00	0		0		55	140			10	5						
May 29, 2003	14:20	0		0		65	145	490	1400	10	5						
June 5, 2003	11:30	0	0	0		70	150			10	5						
June 9, 2003	18:00	0		0		65	140	490	1450	10	5						
June 12, 2003	17:20	0		0		75	135			10	5						
June 19, 2003	15:30	0		0		85	150	490	1400	10	5						
June 26, 2003	10:45	0		0		75	160	490	1400	11	5						
June 30, 2003	7:00	0		0		90	160	490	1400	10	5						
July 7, 2003	10:00	0		0		90	160	490	1400	10	5						
July 15, 2003	14:15	0		0		90	160	490	1400	10	5						
July 17, 2003	14:15	0		0		90	160	490	1400	10	5						
July 19, 2003	17:00	0		0		90	160	490	1400	10	5						
July 21, 2003	18:00	0		0		85	155	490	1400	10	5						
July 25, 2003	17:30	0		0		85	155	490	1400	10	5						
July 31, 2003	18:30	0		0		90	160	490	1400	10	5						
August 5, 2003	14:10	0		0		90	160	490	1400	10	5						
August 14, 2003	18:30	0		0		75	155	490	1400	10	5						
August 22, 2003	14:00	0		0		96	160	490	1400	10	5						
August 30, 2003	7:30	0		0		80	155	490	1400	10	5						
September 10, 2003	13:00	0		0		75	154	490	1400	10	5						
September 18, 2003	17:30	0		0		75	140	490	1400	10	5						
September 26, 2003	17:00	0		0		70	134	490	1400	10	5						
September 30, 2003	10:05	0		0		60	137	500	1400	9.5	5						
October 5, 2003	14:00	0		0		60	137	500	1400	9	5						
October 17, 2003	8:30	0		0		50	120	500	1500	9	4						
October 21, 2003	14:00	0		0		60	132	375	1400	9	4						
October 28, 2003	15:00	0		0		60	128	450	1400	9	4						
November 6, 2003	17:00	0		0		60	122	350	1400	9.5	4						
November 10, 2003	13:45	0		0		60	125	400	1500	9	4						
November 17, 2003	19:00	0		0		50	124	490	1500	10	5						
November 26, 2003	12:00	0		0		40	117	400	1500	9.5	5						
November 30, 2003	8:50	0		0		40	108	510	1500	8	3						
December 4, 2003	14:00	0		0		50	110	500	1500	8	3						
December 11, 2003	13:40	0		0		50	106	500	1500	8	2						
December 18, 2003	16:00	0		0		50	104	500	1500	9	2						
December 24, 2003	18:00	0		0		30	104	490	1500	10	4						
January 8, 2004	11:15	0		0		30	106	490	1500	9	4						
January 22, 2004	10:00	0		0		30	87	400	1450	9.5	2.5						
January 27, 2004	18:15	0		0		5	94	400	1500	9.5	2.5						
February 3, 2004	7:50	0		0		30	96	450	1500	10	2.5						
February 12, 2004	10:00	0		0		25	90	450	1500	10	2						
February 19, 2004	18:30	0		0		30	108	400	1500	10	2						
February 24, 2004	8:30	0		0		30	104	500	1500	10	2						
March 2, 2004	7:30	0		0		40	110	475	1500	10	2						
March 12, 2004	5:50	0		0		30	108	450	1500	10	2						
March 19, 2004	18:00	0		0		40	110	500	1500	10	2						
March 23, 2004	18:00	0		0		30	110	410	1500	10.5	2						
March 31, 2004	5:45	0		0		30	110	400	1500	10	2						
April 8, 2004	5:15	0		0		40	110	500	1550	11	2						
April 16, 2004	5:50	0		0		50	98	500	1500	10	4						
April 21, 2004	18:15	0		0		50	98	500	1500	10	2						
April 28, 2004	9:30	0	14	0		50	98	475	1550	10	2						
May 7, 2004	8:00	0		0		50	98	400	1575	11	2						
May 14, 2004	18:00	0		0		70	98	400	1575	11	2						
May 17, 2004	10:00	0		0		60	98			11	2						
May 18, 2004	9:00	0		0		80	140			11	2						

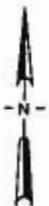
system down, re-started.
 system down, retained.
 system down, re-started.
 1 replaced air filter
 1 1 0 1
 System down, re-started. Styrene was detected at 4 ug/L in the injection tank during GC analysis of effluent.
 System down, re-started. Changed air filter and fluids.
 System down, re-started. Schedule Electrician to conduct diagnostic of system.
 System down, re-started.

TABLE III
 SUB-SLAB VENTING SYSTEM MONITORING DATA
 120 COMMERCIAL STREET, PARCEL B OF FORMER MANUFACTURED GAS PLANT SITE
 MALDEN, MASSACHUSETTS

Monitoring Date	Influent Concentrations PID (ppm)	Influent Concentrations HMA GC (ug/L)	Effluent Concentrations Effluent # 1 (ppm)	Effluent # 2 (ppm)	Outdoor Temp (°F)	Outdoor Vapor Temp (°F)	Flow Velocity (ft/min) Influent	Flow Velocity (ft/min) Effluent	System Blower	Vacuum and Pressure Knockout Drum	Discharge	Vacuum at Extraction Points (in water) EP-1 EP-2 EP-3 EP-4 EP-5
May 10, 2004 8:15	0	0	0	0	60	140	300	1200	11	2	40	Electrician on site. System problems due to over heating included heat air vent adjacent to blower.
May 20, 2004 11:30	0	0	0	0	50	123	250	1100	11.5	4	40	
May 26, 2004 11:00	0	0	0	0	50	137			11.5	6	39	
June 4, 2004 17:15	0	0	0	0	50	130			11	6	40	
June 6, 2004 17:20	0	0	0	0	50	142	375	1200	11	5	39	System down, restarted.
June 10, 2004 16:45	0	0	0	0	50	150	375	1200	11	5	39	
June 17, 2004 14:00	0	0	0	0	50	132	400	1200	11	5	40	
June 21, 2004 5:00	0	0	0	0	50	144	400	1200	11	5	40	
June 28, 2004 12:30	0	0	0	0	50	144	425	1200	11	5	40	
July 9, 2004 8:45	0	0	0	0	70	140	400	1200	11	5	40	
July 16, 2004 5:15	0	0	0	0	70	116	475	1250	11.5	5	40	System down, restarted.
July 23, 2004 5:00	0	0	0	0	60	132	500	1250	11.5	5	40	Vent fan installed in trailer
July 30, 2004 10:00	0	0	0	0	70	140	500	1250	11.5	5	40	System down, restarted.
August 5, 2004 5:00	0	0	0	0	60	132	500	1250	11.5	5	40	
August 10, 2004 16:15	0	0	0	0	60	120	500	1250	11.5	5	38	
August 19, 2004 8:00	0	0	0	0	60	120	500	1250	11.5	5	38	
August 26, 2004 5:45	0	0	0	0	60	124	350	1250	12	5	39	
August 31, 2004 11:20	0	0	0	0	70	114	300	1250	11.5	5	40	
September 10, 2004 8:15	0	0	0	0	60	122	350	1250	11.5	5	40	
September 14, 2004 13:10	0	0	0	0	60	122	375	1250	11.5	5	40	2
September 23, 2004 3:30	0	0	0	0	60	122	375	1250	11.5	5	40	2
September 28, 2004 18:30	0	0	0	0	60	143	350	1250	11	5	40	
October 7, 2004 5:45	0	0	0	0	40	100	300	1250	11	5	41	
October 14, 2004 6:20	0	0	0	0	50	110	500	1250	11	5	40	
October 21, 2004 8:00	0	0	0	0	40	98	300	1250	11	5	42	
October 27, 2004 18:00	0	0	0	0	70	112	300	1250	11	5	40	
November 4, 2004 9:15	0	0	0	0	50	98	475	1250	11	5	42	
November 11, 2004 8:00	0	0	0	0	40	98	325	1250	11	5	41	
November 15, 2004 10:00	0	0	0	0	40	100	475	1250	11	5	41	
November 26, 2004 9:00	0	0	0	0	40	98	400	1250	11	5	41	
November 30, 2004 15:30	0	0	0	0	40	98	400	1250	11	5	41	
December 6, 2004 11:40	0	0	0	0	20	85	400	1250	11	4.5	42	
December 16, 2004 8:00	0	0	0	0	10	78	400	1250	11	4	41	
December 20, 2004 14:45	0	0	0	0	10	75	400	1250	11	4	41	
December 28, 2004 17:45	0	0	0	0	30	84	400	1250	11	4	41	
January 7, 2005 3:30	0	0	0	0	30	86	300	1250	11	4	41	
January 13, 2005 5:15	0	0	0	0	30	96	400	1250	11	4	42	
January 20, 2005 6:20	0	0	0	0	10	78	400	1250	11	4	41	
January 25, 2005 12:15	0	0	0	0	20	90	-	-	9	3	37	System off, restarted. No access to Int/Eff velocity ports due to large snow bank.
February 2, 2005 14:30	0	0	0	0	30	88	400	-	5	5	41	System off, restarted. No access to Eff velocity port due to large snow bank.
February 7, 2005 11:20	0	0	0	0	40	96	400	-	9	5	40	No access to Eff velocity port due to large snow bank.
February 17, 2005 5:15	0	0	0	0	20	66	400	-	5	5	40	System off, restarted. No access to Eff velocity port due to large snow bank.
February 24, 2005 11:45	0	0	0	0	30	85	400	1250	9	5	42	
February 28, 2005 5:15	0	0	0	0	20	78	350	1200	9	4.5	42	
March 9, 2005 7:45	0	0	0	0	10	70	-	-	8.5	4	41	
March 15, 2005 14:30	0	0	0	0	40	100	350	1200	10	5	42	No access to Int/Eff velocity port due to large snow bank.
March 21, 2005 5:10	0	0	0	0	30	82	350	1200	11	5	42	0



SITE COORDINATES: 42°25'25" N 71°04'27" W



U.S.G.S. QUADRANGLE: BOSTON NORTH, MA



FORMER MALDEN MGP SITE, PARCEL B
129 COMMERCIAL STREET
MALDEN, MASSACHUSETTS

PROJECT LOCUS

UNDERGROUND
ENGINEERING &
ENVIRONMENTAL
SOLUTIONS

APPROXIMATE SCALE: 1:25,000

APRIL 2005

06558-711 A226

FIGURE 1

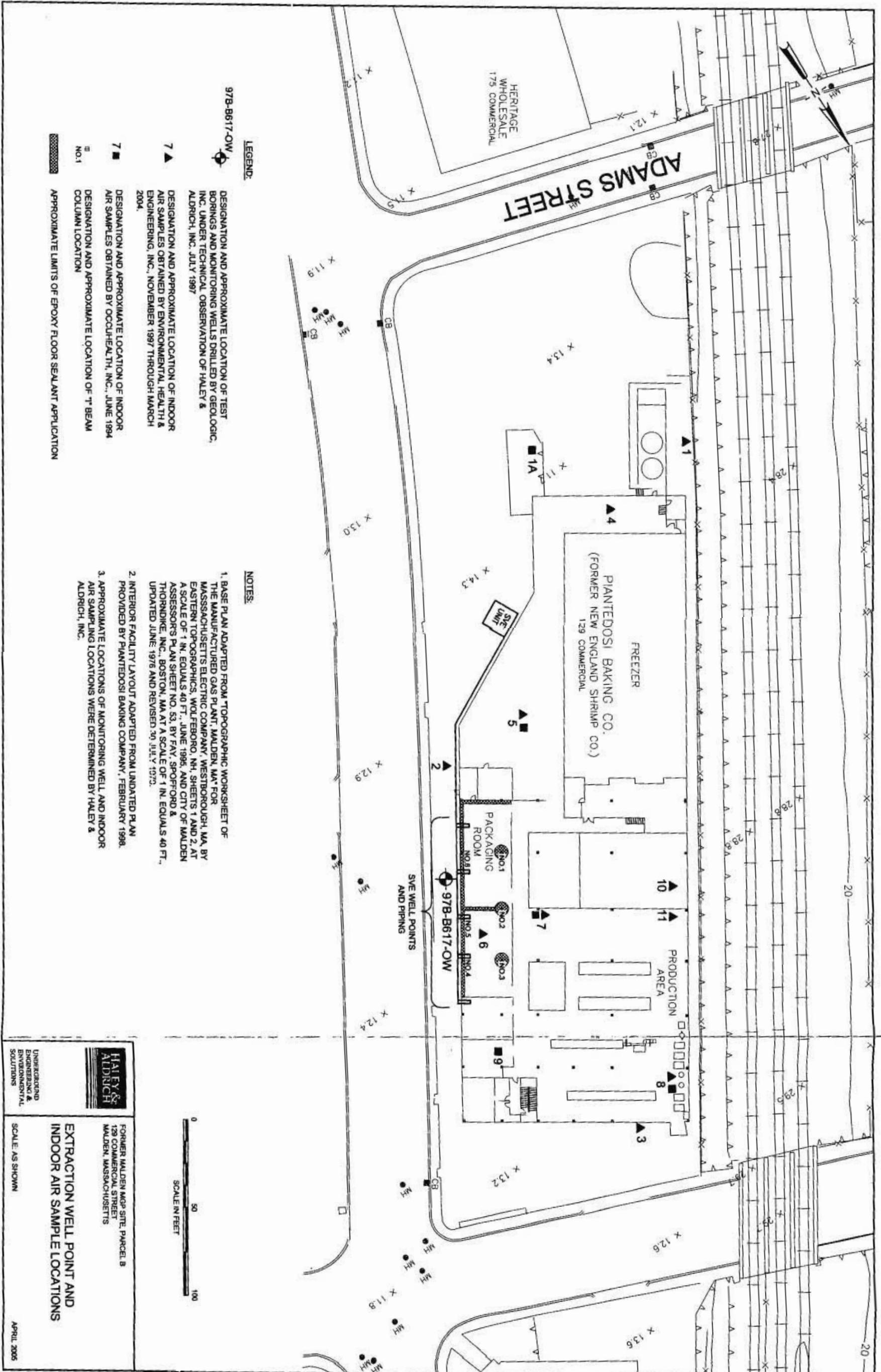


Figure 3 PID Measurements of Sub-Slab Vapor Influent

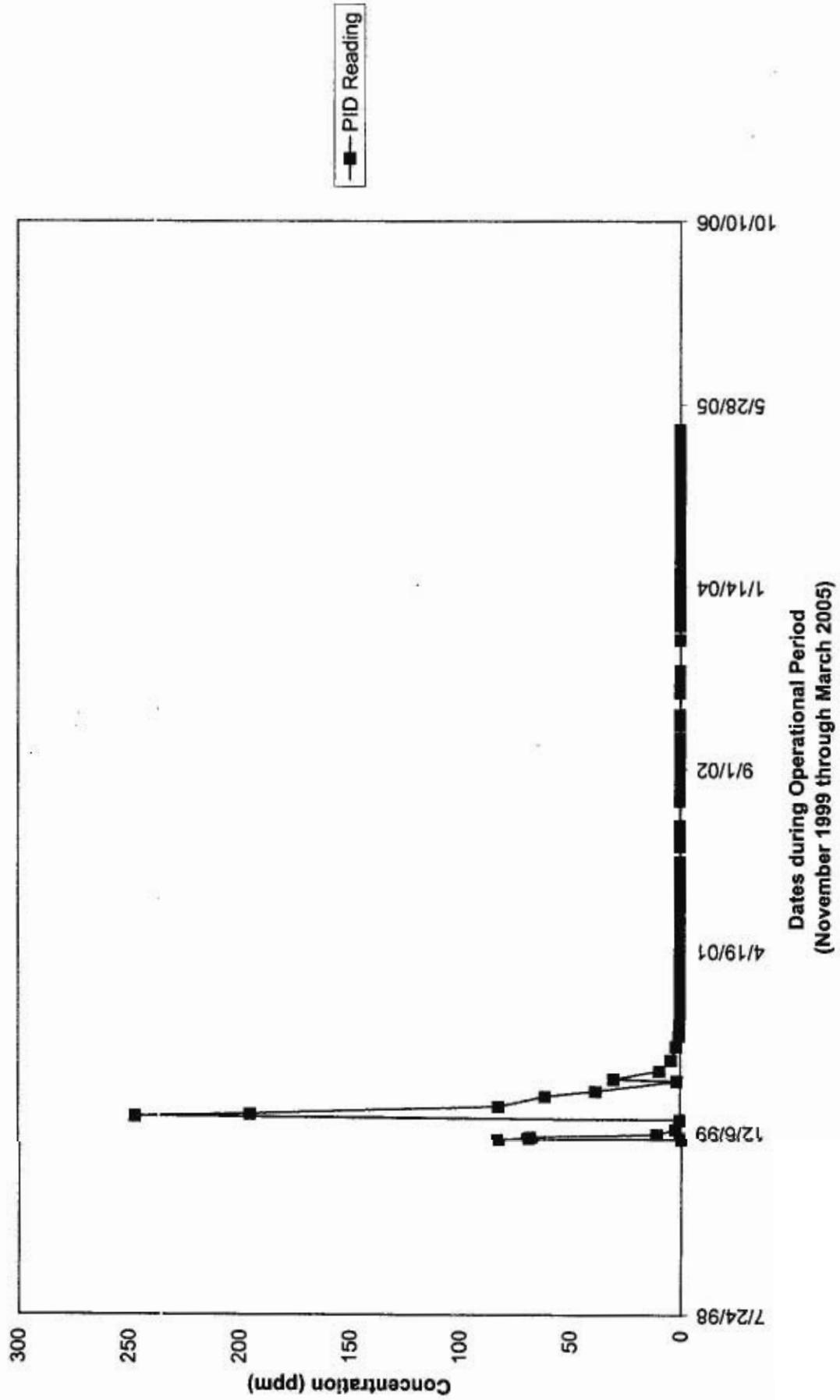
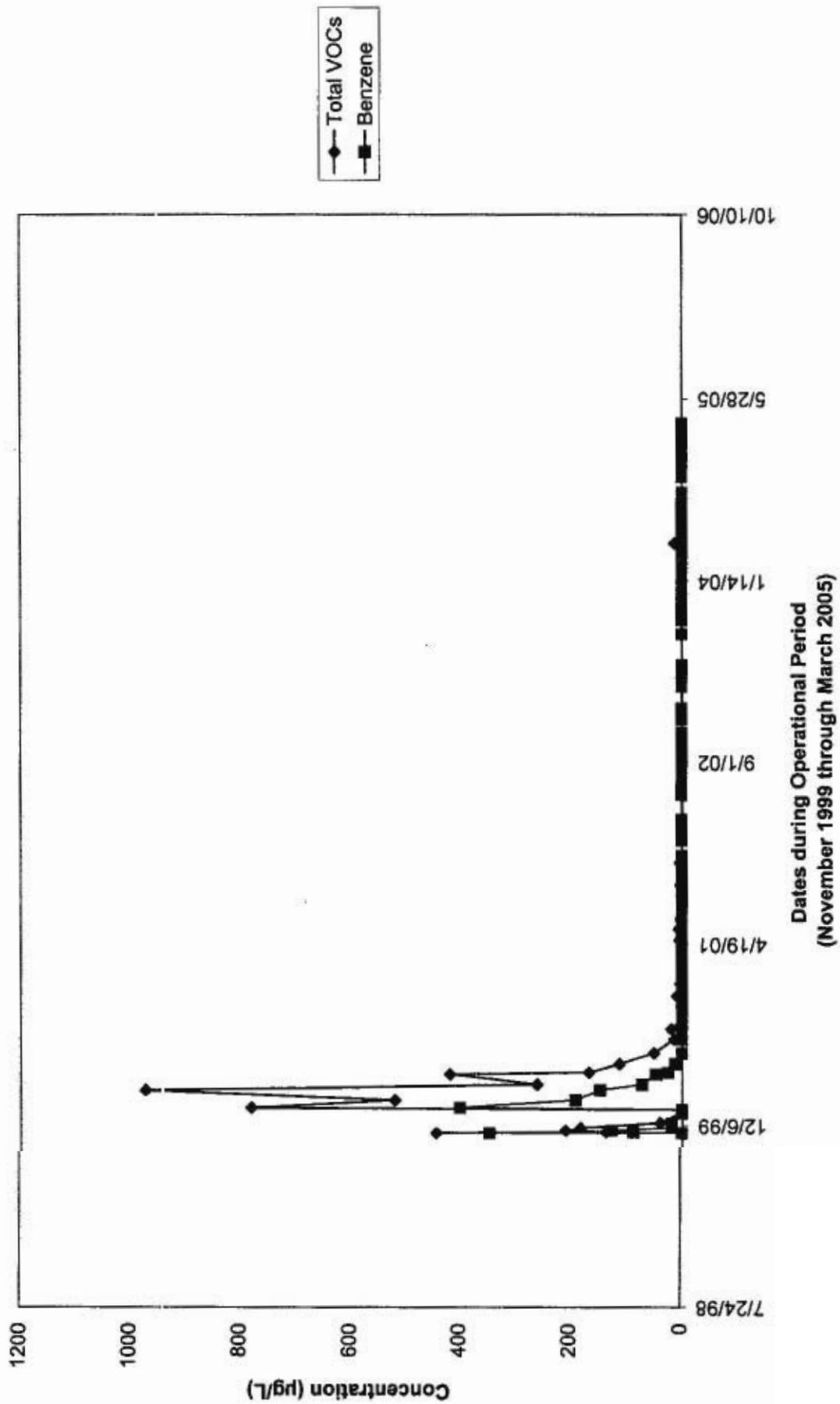


Figure 4 GC Analysis of Sub-Slab Vapor Influent



APPENDIX A

Copy of Form BWSC-106



**RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM**

Release Tracking Number

3 - 0362

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

A. SITE LOCATION:

1. Site Name/Location Aid: Former Manufactured Gas Plant (MGP) Site

2. Street Address: 129 Commercial Street

3. City/Town: Malden

4. ZIP Code: 02148-0000

5. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.

- a. Tier IA
- b. Tier IB
- c. Tier IC
- d. Tier II

6. If a Tier I Permit has been issued, provide Permit Number: 7378

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

1. List Submittal Date of Initial RAM Written Plan (if previously submitted): 07/02/1998

(mm/dd/yyyy)

2. Submit an Initial Release Abatement Measure (RAM) Plan.

a. Check here if this RAM Plan received previous oral approval from DEP as a continuation of a Limited Removal Action (LRA).

b. List Date of Oral Approval: _____
(mm/dd/yyyy)

3. Submit a Modified RAM Plan of a previously submitted written RAM Plan.

4. Submit a RAM Status Report.

5. Submit a RAM Completion Statement.

6. Submit a Revised RAM Completion Statement.

7. Provide Additional RTNs:

a. Check here if this RAM Submittal covers additional Release Tracking Numbers (RTNs). RTNs that have been previously linked to a Primary Tier Classified RTN do not need to be listed here. This section is intended to allow a RAM to cover more than one unclassified RTN and not show permanent linkage to a Primary Tier Classified RTN.

b. Provide the additional Release Tracking Number(s) covered by this RAM Submittal. - -

RECEIVED

APR 11 2005

DEP

NORTHEAST REGIONAL OFFICE

(All sections of this transmittal form must be filled out unless otherwise noted above)



RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3 - 0362

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT RAM:

1. Identify Media Impacted and Receptors Affected: (check all that apply)

- a. Air b. Basement c. Critical Exposure Pathway d. Groundwater e. Residence
- f. Paved Surface g. Private Well h. Public Water Supply i. School j. Sediments
- k. Soil l. Storm Drain m. Surface Water n. Unknown o. Wetland p. Zone 2
- q. Others Specify: _____

2. Identify all sources of the Release or Threat of Release, if known: (check all that apply)

- a. Above-ground Storage Tank (AST) b. Boat/Vessel c. Drums d. Fuel Tank
- e. Pipe/Hose/Line f. Tanker Truck g. Transformer h. Under-ground Storage Tank (UST)
- i. Vehicle j. Others Specify: Disposal associated with former MGP operations

3. Identify Oils and Hazardous Materials Released: (check all that apply)

- a. Oils b. Chlorinated Solvents c. Heavy Metals
- d. Others Specify: MGP contaminants: VOCs, PAHs, Cyanide

D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply, for volumes list cumulative amounts)

- 1. Assessment and/or Monitoring Only
- 2. Temporary Covers or Caps
- 3. Deployment of Absorbent or Containment Materials
- 4. Temporary Water Supplies
- 5. Structure Venting System
- 6. Temporary Evacuation or Relocation of Residents
- 7. Product or NAPL Recovery
- 8. Fencing and Sign Posting
- 9. Groundwater Treatment Systems
- 10. Soil Vapor Extraction
- 11. Bioremediation
- 12. Air Sparging
- 13. Excavation of Contaminated Soils

- a. Re-use, Recycling or Treatment i. On Site Estimated volume in cubic yards _____
- ii. Off Site Estimated volume in cubic yards _____

ii.a. Receiving Facility: _____ Town: _____ State: _____

ii.b. Receiving Facility: _____ Town: _____ State: _____

iii. Describe: _____



RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3 - 0362

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

D. DESCRIPTION OF RESPONSE ACTIONS (cont): (check all that apply, for volumes list cumulative amounts)

- b. Store i. On Site Estimated volume in cubic yards _____
 ii. Off Site Estimated volume in cubic yards _____

 iia. Receiving Facility: _____ Town: _____ State: _____

 iib. Receiving Facility: _____ Town: _____ State: _____

- c. Landfill
 i. Cover Estimated volume in cubic yards _____
 Receiving Facility: _____ Town: _____ State: _____

- ii. Disposal Estimated volume in cubic yards _____
 Receiving Facility: _____ Town: _____ State: _____

14. Removal of Drums, Tanks or Containers:
 a. Describe Quantity and Amount: _____
 b. Receiving Facility: _____ Town: _____ State: _____
 c. Receiving Facility: _____ Town: _____ State: _____

15. Removal of Other Contaminated Media:
 a. Specify Type and Volume: To date: 47 55-gal drums (approx 7755 LBS) spent activated carbon
 b. Receiving Facility: Clean Harbors Town: Bristol State: CT
 c. Receiving Facility: Clean Harbors Town: Braintree State: MA

16. Other Response Actions:
 Describe: _____

17. Use of Innovative Technologies:
 Describe: _____



RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3 - 0362

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

E. LSP SIGNATURE AND STAMP :

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 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

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

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

> if Section B of this form indicates that a **Release Abatement Measure Completion Statement** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) 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.

1. LSP #: 2242

2. First Name: Richard 3. Last Name: Standish

4. Telephone: (860) 290-3131 5. Ext.: _____ 6. FAX: (860) 282-9500

7. Signature: *Richard P. Standish*

8. Date: 04/07/00
(mm/dd/yyyy)

9. LSP Stamp:





RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3 - 0362

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

F. PERSON UNDERTAKING RAM:

1. Check all that apply: a. change in contact name b. change of address c. change in the person undertaking response actions

2. Name of Organization: Massachusetts Electric Company

3. Contact First Name: Michele 4. Last Name: Leone

5. Street: 25 Research Drive 6. Title: _____

7. City/Town: Westborough 8. State: MA 9. ZIP Code: 01582-0000

10. Telephone: (508) 389-4293 11. Ext.: _____ 12. FAX: (508) 389-4299

G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING RAM:

1. RP or PRP a. Owner b. Operator c. Generator d. Transporter

e. Other RP (or PRP) Specify: Party of Interest

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

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

4. Any Other Person Undertaking RAM Specify Relationship: _____

H. REQUIRED ATTACHMENT AND SUBMITTALS:

1. Check here if any Remediation Waste, generated as a result of this RAM, will be stored, treated, managed, recycled or reused at the site following submission of the RAM Completion Statement. You must submit a Phase IV Remedy Implementation Plan along with the appropriate transmittal form (BWSC108).

2. 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.

3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the implementation of a Release Abatement Measure.

4. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to the DEP Regional Office.

5. If a RAM Compliance Fee is required for this RAM, check here to certify that a RAM Compliance Fee was submitted to DEP, P. O. Box 4062, Boston, MA 02211.

6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.



RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3 - 3757

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

I. CERTIFICATION OF PERSON UNDERTAKING RAM:

1. I, Michael Lotti, 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.

2. By: [Signature] 3. Title: Environmental Engineer
Signature

4. For: Massachusetts Electric Company 5. Date: 04/04/2005
(Name of person or entity recorded in Section F) (mm/dd/yyyy)

6. Check here if the address of the person providing certification is different from address recorded in Section F.

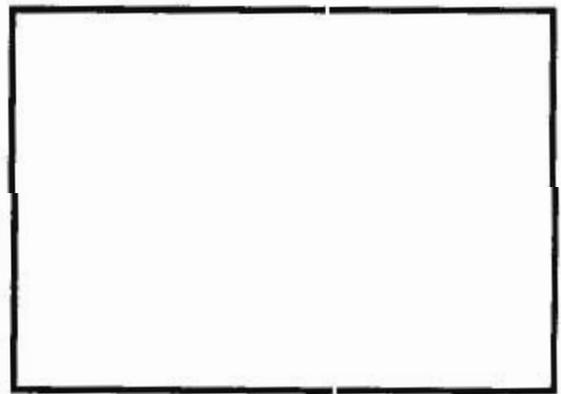
7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. FAX: _____

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY 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.

Date Stamp (DEP USE ONLY:)



APPENDIX B

Indoor Air Quality Analytical Data

LABORATORY REPORT

Client:	HALEY & ALDRICH, INC.	Date of Report:	11/15/04
Address:	465 Medford Street, Suite 2200	Date Received:	10/29/04
	Boston, MA 02129	CAS Project No:	P2402344
Contact:	Ms. Nancy Reardon	Purchase Order:	Verbal
Client Project ID:	129 Commercial Street, Malden/06558-709		

Eight (8) Stainless Steel Summa Canisters labeled:

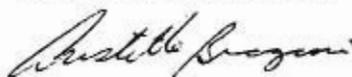
"SITE 4"	"SITE 5"	"SITE 6"	"SITE 7"
"SITE 7 (DUP)"	"SITE 8"	"SITE 10"	"SITE 2"

The samples were received at the laboratory under chain of custody on October 29, 2004. The samples were received intact. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time that they were received at the laboratory.

Volatile Organic Compound Analysis

The samples were analyzed by combined gas chromatography/mass spectrometry (GC/MS) for selected volatile organic compounds. The analyses were performed according to the methodology outlined in EPA Method TO-15. The analyses were performed by gas chromatography/mass spectrometry, utilizing a direct cryogenic trapping technique. The analytical system used was comprised of a Hewlett Packard Model 5972 GC/MS/DS interfaced to a Tekmar AutoCan Elite whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT_x-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

Reviewed and Approved:



Aristotle Bragasin
Analytical Chemist
Air Quality Laboratory

Reviewed and Approved:



Chris Parnell
GCMS-VOA Team Leader
Air Quality Laboratory

1/14

CAS Project No: P2402344

The results of analyses are given on the attached data sheets. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Haley & Aldrich, Inc.
Client Sample ID: SITE 4
Client Project ID: 129 Commercial Street, Malden/06558-709

CAS Project ID: P2402344
CAS Sample ID: P2402344-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00153

Date Collected: 10/26/04
Date Received: 10/29/04
Date(s) Analyzed: 11/2/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -3.7 Pf 1 = 3.5

D.F. = 1.65

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	ND	1.7	ND	0.52	
108-88-3	Toluene	6.7	1.7	1.8	0.44	
100-41-4	Ethylbenzene	ND	1.7	ND	0.38	
136777-61-2	<i>m,p</i> -Xylenes	3.2	1.7	0.74	0.38	
100-42-5	Styrene	ND	1.7	ND	0.39	
95-47-6	<i>o</i> -Xylene	ND	1.7	ND	0.38	
91-20-3	Naphthalene	ND	1.7	ND	0.31	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **SITE 5**
 Client Project ID: **129 Commercial Street, Malden/06558-709**

CAS Project ID: P2402344
 CAS Sample ID: P2402344-002

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Aristotle Bragasini
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00485

Date Collected: 10/26/04
 Date Received: 10/29/04
 Date(s) Analyzed: 11/2/04
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -2.8 Pf 1 = 3.5

D.F. = 1.53

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	ND	1.5	ND	0.48	
108-88-3	Toluene	9.0	1.5	2.4	0.41	
100-41-4	Ethylbenzene	ND	1.5	ND	0.35	
136777-61-2	<i>m,p</i> -Xylenes	4.4	1.5	1.0	0.35	
100-42-5	Styrene	ND	1.5	ND	0.36	
95-47-6	<i>o</i> -Xylene	ND	1.5	ND	0.35	
91-20-3	Naphthalene	ND	1.5	ND	0.29	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **SITE 6**
 Client Project ID: **129 Commercial Street, Malden/06558-709**

CAS Project ID: P2402344
 CAS Sample ID: P2402344-003

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Aristotle Bragasin
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00555

Date Collected: 10/26/04
 Date Received: 10/29/04
 Date(s) Analyzed: 11/2/04
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -4.5 Pf 1 = 3.5

D.F. = 1.78

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-42-2	Benzene	ND	1.8	ND	0.56	
108-88-3	Toluene	13	1.8	3.3	0.47	
100-41-4	Ethylbenzene	ND	1.8	ND	0.41	
136777-61-2	<i>m,p</i> -Xylenes	3.1	1.8	0.71	0.41	
100-42-5	Styrene	ND	1.8	ND	0.42	
95-47-6	<i>o</i> -Xylene	ND	1.8	ND	0.41	
91-20-3	Naphthalene	ND	1.8	ND	0.34	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 11/2/04 **5**

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **SITE 7**
 Client Project ID: **129 Commercial Street, Malden/06558-709**

CAS Project ID: **P2402344**
 CAS Sample ID: **P2402344-004**

Test Code: **EPA TO-15**
 Instrument ID: **Tekmar AUTOCAN/HP5972/HP5890 II+/MS2**
 Analyst: **Aristotle Bragasin**
 Sampling Media: **Summa Canister**
 Test Notes:
 Container ID: **AC00541**

Date Collected: **10/26/04**
 Date Received: **10/29/04**
 Date(s) Analyzed: **11/2/04**
 Volume(s) Analyzed: **1.00 Liter(s)**

Pi 1 = -3.1 Pf 1 = 3.5

D.F. = 1.57

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	1.7	1.6	0.53	0.49	
108-88-3	Toluene	6.9	1.6	1.8	0.42	
100-41-4	Ethylbenzene	ND	1.6	ND	0.36	
136777-61-2	<i>m,p</i> -Xylenes	4.0	1.6	0.93	0.36	
100-42-5	Styrene	ND	1.6	ND	0.37	
95-47-6	<i>o</i> -Xylene	ND	1.6	ND	0.36	
91-20-3	Naphthalene	ND	1.6	ND	0.30	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 11/2/04 **6**

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **SITE 7 (DUP)**
 Client Project ID: **129 Commercial Street, Malden/06558-709**

CAS Project ID: P2402344
 CAS Sample ID: P2402344-005

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/EIP5972/HP5890 II+/MS2
 Analyst: Aristotle Bragasin
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00386

Date Collected: 10/26/04
 Date Received: 10/29/04
 Date(s) Analyzed: 11/2/04
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	1.7	1.2	0.52	0.38	
108-88-3	Toluene	4.7	1.2	1.3	0.32	
100-41-4	Ethylbenzene	1.3	1.2	0.31	0.28	
136777-61-2	<i>m,p</i> -Xylenes	1.9	1.2	0.45	0.28	
100-42-5	Styrene	7.1	1.2	1.7	0.29	
95-47-6	<i>o</i> -Xylene	ND	1.2	ND	0.28	
91-20-3	Naphthalene	ND	1.2	ND	0.23	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 11/2/04 7

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **SITE 8**
 Client Project ID: **129 Commercial Street, Malden/06558-709**

CAS Project ID: **P2402344**
 CAS Sample ID: **P2402344-006**

Test Code: **EPA TO-15**
 Instrument ID: **Tekmar AUTOCAN/HP5972/HP5890 II+/MS2**
 Analyst: **Aristotle Bragasin**
 Sampling Media: **Summa Canister**
 Test Notes:
 Container ID: **AC00592**

Date Collected: **10/26/04**
 Date Received: **10/29/04**
 Date(s) Analyzed: **11/2/04**
 Volume(s) Analyzed: **1.00 Liter(s)**

Pi 1 = -2.4 Pf 1 = 3.5

D.F. = 1.48

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	ND	1.5	ND	0.46	
108-88-3	Toluene	5.1	1.5	1.3	0.39	
100-41-4	Ethylbenzene	ND	1.5	ND	0.34	
136777-61-2	<i>m,p</i> -Xylenes	2.9	1.5	0.67	0.34	
100-42-5	Styrene	ND	1.5	ND	0.35	
95-47-6	<i>o</i> -Xylene	ND	1.5	ND	0.34	
91-20-3	Naphthalene	ND	1.5	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 11/2/04 8

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **SITE 18 II (18)**
 Client Project ID: **129 Commercial Street, Malden/06558-709**

CAS Project ID: P2402344
 CAS Sample ID: P2402344-007

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Aristotle Bragasin
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00404

Date Collected: 10/26/04
 Date Received: 10/29/04
 Date(s) Analyzed: 11/2/04
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -3.1 Pf 1 = 3.5

D.F. = 1.57

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	1.9	1.6	0.59	0.49	
108-88-3	Toluene	6.6	1.6	1.8	0.42	
100-41-4	Ethylbenzene	ND	1.6	ND	0.36	
136777-61-2	<i>m,p</i> -Xylenes	3.5	1.6	0.80	0.36	
100-42-5	Styrene	ND	1.6	ND	0.37	
95-47-6	<i>o</i> -Xylene	ND	1.6	ND	0.36	
91-20-3	Naphthalene	ND	1.6	ND	0.30	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 11/2/04 9

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **SITE 2**
 Client Project ID: **129 Commercial Street, Malden/06558-709**

CAS Project ID: P2402344
 CAS Sample ID: P2402344-008

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Aristotle Bragasin
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00281

Date Collected: 10/26/04
 Date Received: 10/29/04
 Date(s) Analyzed: 11/2/04
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.9 Pf 1 = 3.6

D.F. = 1.43

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	2.2	1.4	0.69	0.45	
108-88-3	Toluene	6.8	1.4	1.8	0.38	
100-41-4	Ethylbenzene	ND	1.4	ND	0.33	
136777-61-2	<i>m,p</i> -Xylenes	3.6	1.4	0.83	0.33	
100-42-5	Styrene	ND	1.4	ND	0.34	
95-47-6	<i>o</i> -Xylene	ND	1.4	ND	0.33	
91-20-3	Naphthalene	ND	1.4	ND	0.27	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: Rw

Date: 11/12/04 10

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **SITE 2**
 Client Project ID: **129 Commercial Street, Malden/06558-709**

CAS Project ID: P2402344
 CAS Sample ID: P2402344-008DUP

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/EP5972/HP5890 II+/MS2
 Analyst: Aristotle Bragasin
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00281

Date Collected: 10/26/04
 Date Received: 10/29/04
 Date(s) Analyzed: 11/2/04
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.9 Pf 1 = 3.6

D.F. = 1.43

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	2.2	1.4	0.69	0.45	
108-88-3	Toluene	6.8	1.4	1.8	0.38	
100-41-4	Ethylbenzene	ND	1.4	ND	0.33	
136777-61-2	<i>m,p</i> -Xylenes	3.6	1.4	0.84	0.33	
100-42-5	Styrene	ND	1.4	ND	0.34	
95-47-6	<i>o</i> -Xylene	ND	1.4	ND	0.33	
91-20-3	Naphthalene	ND	1.4	ND	0.27	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The maximum quantity of a target analyte that can be confidently determined by the referenced method.

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **Method Blank**
 Client Project ID: **129 Commercial Street, Malden/06558-709**

CAS Project ID: P2402344
 CAS Sample ID: P041102-MB

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Aristotle Bragasin
 Sampling Media: Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 11/2/04
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	ND	1.0	ND	0.31	
108-88-3	Toluene	ND	1.0	ND	0.27	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
136777-61-2	<i>m,p</i> -Xylenes	ND	1.0	ND	0.23	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	<i>o</i> -Xylene	ND	1.0	ND	0.23	
91-20-3	Naphthalene	ND	1.0	ND	0.19	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 11/2/04¹²

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Haley & Aldrich, Inc. Work order: P2402344
 Project: 129 Commercial Street, Malden/06558-709
 Sample(s) received on: 10/29/04 Date opened: 10/29/04 by: SM

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client or as required by the method/SOP.

- | | <u>Yes</u> | <u>No</u> | <u>N/A</u> |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were custody seals on outside of cooler/Box? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were custody seals on outside of sample container? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2 Were sample containers properly marked with client sample ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Did sample containers arrive in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Were chain-of-custody papers used and filled out? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Did sample container labels and/or tags agree with custody papers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Was sample volume received adequate for analysis? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 Are samples within specified holding times? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8 Was proper temperature (thermal preservation) of cooler at receipt adhered to? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Cooler Temperature <u>NA</u> °C | | | |
| Blank Temperature <u>NA</u> °C | | | |
| 9 Is pH (acid) preservation necessary, according to method/SOP or Client specified information? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Is there a client indication that the submitted samples are pH (acid) preserved? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were VOA vials checked for presence/absence of air bubbles? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10 Tubes: Are the tubes capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Do they contain moisture? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11 Badges: Are the badges properly capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Lab Sample ID	Required pH	pH (as received, if required)	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2402344-001			NA	
P2402344-002			NA	
P2402344-003			NA	
P2402344-004			NA	
P2402344-005			NA	
P2402344-006			NA	
P2402344-007			NA	
P2402344-008			NA	

Explain any discrepancies: (include lab sample ID numbers): _____

Chain of Custody Record Analytical Service Request

Air Quality Laboratory
2665 Park Center Drive, Suite D
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270



Client/Address HALEY + ALDRICH, INC. 465 MEDFORD ST, STE 2200 CHARLESTOWN, MA 02124		Project Name 129 COMMERCIAL STREET, MALDEN		CAS Project No. P2402344							
Phone: 617 886 7465 Fax: 617 886 7765		Project Number 06558-704		Cooler / Blank Temp _____							
Email: nrcardon@haleyaldrich.com		Sampling Location MALDEN, MA		Expected Turnaround Time 24 Hr 48 Hr 3Day 4Day 5Day							
Contact: Nancy Reardon		P.O. #/Billing Information SEE CLIENT INFO		Comments (e.g., preservative or specific instructions)							
Sampler (Signature) 		EPA 17-15		benzene toluene ethyl benzene m,p,o-xylene styrene naphthalene							
Client Sample ID	Date Collected	START Time Collected	Lab Sample No.	Type of Sample	Container ID (Serial #)	Flow Controller (Serial #)	Sample Volume (Liters)				
SITE 4	10/26/04	0724 1510	-1	AIR	AC00153	FC00364	✓				
SITE 5	10/26/04	0727 1509	-2	AIR	AC00485	FC00297	✓				
SITE 6	10/26/04	0724 1506	-3	AIR	AC00555	FC00292	✓				
SITE 7	10/26/04	0727 1511	-4	AIR	AC00541	FC00155	✓				
SITE 7 (DUP)	10/26/04	0726 1511	-5	AIR	AC00386	FC00318	✓				
SITE 8	10/26/04	0724 1511	-6	AIR	AC00592	FC00061	✓				
SITE 10	10/26/04	0732 1512	-7	AIR	AC00404	FC00215	✓				
SITE 2	10/26/04	0721 1505	-8	AIR	AC00281	FC00190	✓				
Relinquished by: (Signature) 		Date: 10/27/04		Time: 0745 EST		Received by: (Signature) 		Date: 10/29/04		Time: 11:00	
Relinquished by: (Signature) 		Date:		Time:		Received by: (Signature)		Date:		Time:	
Relinquished by: (Signature)		Date:		Time:		Received by: (Signature)		Date:		Time:	

LABORATORY REPORT

Client:	HALEY & ALDRICH, INC.	Date of Report:	02/04/05
Address:	465 Medford Street, Suite 2200	Date Received:	01/20/05
	Boston, MA 02129	CAS Project No:	P2500130
Contact:	Ms. Nancy Reardon	Purchase Order:	Verbal
Client Project ID: 129 COMMERCIAL ST./06558-707			

Eight (8) Stainless Steel Summa Canisters labeled:

"SITE 2"	"SITE 4"	"SITE 5"	"SITE 6"
"SITE 7"	"SITE 7 (DUP)"	"SITE 8"	"SITE 11"

The samples were received at the laboratory under chain of custody on January 20, 2005. The samples were received intact. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time that they were received at the laboratory.

Volatile Organic Compound Analysis

The samples were analyzed by combined gas chromatography/mass spectrometry (GC/MS) for selected volatile organic compounds. The analyses were performed according to the methodology outlined in EPA Method TO-15. The analyses were performed by gas chromatography/mass spectrometry, utilizing a direct cryogenic trapping technique. The analytical system used was comprised of an Agilent Model 5973 inert GC/MS/DS interfaced to a Tekmar AutoCan Elite whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT_x-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

Reviewed and Approved:



Svetlana Walsh
Analytical Chemist
Air Quality Laboratory

Reviewed and Approved:



Chris Parnell
GCMS-VOA Team Leader
Air Quality Laboratory

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1 of 13

CAS Project No: P2500130

The results of analyses are given on the attached data sheets. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **SITE 2**
 Client Project ID: **129 COMMERCIAL ST./06558-707**

CAS Project ID: **P2500130**
 CAS Sample ID: **P2500130-001**

Test Code: **EPA TO-15**
 Instrument ID: **Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8**
 Analyst: **Svetlana Walsh**
 Sampling Media: **Summa Canister**
 Test Notes:
 Container ID: **AC00739**

Date Collected: **1/13/05**
 Date Received: **1/20/05**
 Date(s) Analyzed: **1/21/05**
 Volume(s) Analyzed: **1.00 Liter(s)**

Pi 1 = **-1.7** Pf 1 = **3.6**

D.F. = **1.41**

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	3.8	1.4	1.2	0.44	
108-88-3	Toluene	18	1.4	4.9	0.37	
100-41-4	Ethylbenzene	2.8	1.4	0.65	0.32	
136777-61-2	<i>m,p</i> -Xylenes	8.2	1.4	1.9	0.32	
100-42-5	Styrene	ND	1.4	ND	0.33	
95-47-6	<i>o</i> -Xylene	2.8	1.4	0.64	0.32	
91-20-3	Naphthalene	ND	1.4	ND	0.27	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KUH Date: 02/03/05

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **SITE 4**
 Client Project ID: **129 COMMERCIAL ST./06558-707**

CAS Project ID: P2500130
 CAS Sample ID: P2500130-002

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00524

Date Collected: 1/13/05
 Date Received: 1/20/05
 Date(s) Analyzed: 1/21/05
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.4 Pf 1 = 3.5

D.F. = 1.27

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	2.6	1.3	0.83	0.40	
108-88-3	Toluene	16	1.3	4.3	0.34	
100-41-4	Ethylbenzene	2.7	1.3	0.62	0.29	
136777-61-2	<i>m,p</i> -Xylenes	8.0	1.3	1.9	0.29	
100-42-5	Styrene	ND	1.3	ND	0.30	
95-47-6	<i>o</i> -Xylene	2.2	1.3	0.51	0.29	
91-20-3	Naphthalene	ND	1.3	ND	0.24	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: kuh Date: 02/03/05

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **SITE 6**
 Client Project ID: **129 COMMERCIAL ST./06558-707**

CAS Project ID: P2500130
 CAS Sample ID: P2500130-004

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00122

Date Collected: 1/13/05
 Date Received: 1/20/05
 Date(s) Analyzed: 1/21/05
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.9 Pf 1 = 3.5

D.F. = 1.17

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	2.8	1.2	0.86	0.37	
108-88-3	Toluene	15	1.2	4.0	0.31	
100-41-4	Ethylbenzene	1.5	1.2	0.34	0.27	
136777-61-2	<i>m,p</i> -Xylenes	3.6	1.2	0.82	0.27	
100-42-5	Styrene	ND	1.2	ND	0.27	
95-47-6	<i>o</i> -Xylene	1.3	1.2	0.29	0.27	
91-20-3	Naphthalene	ND	1.2	ND	0.22	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **SITE 7**
 Client Project ID: **129 COMMERCIAL ST./06558-707**

CAS Project ID: P2500130
 CAS Sample ID: P2500130-005

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00747

Date Collected: 1/13/05
 Date Received: 1/20/05
 Date(s) Analyzed: 1/21/05
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.4 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	2.8	1.2	0.88	0.38	
108-88-3	Toluene	10	1.2	2.7	0.32	
100-41-4	Ethylbenzene	2.3	1.2	0.54	0.28	
136777-61-2	<i>m,p</i> -Xylenes	6.0	1.2	1.4	0.28	
100-42-5	Styrene	ND	1.2	ND	0.28	
95-47-6	<i>o</i> -Xylene	1.7	1.2	0.40	0.28	
91-20-3	Naphthalene	ND	1.2	ND	0.23	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: kuh Date: 02/03/05

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **SITE 7 (DUP)**
 Client Project ID: **129 COMMERCIAL ST./06558-707**

CAS Project ID: **P2500130**
 CAS Sample ID: **P2500130-006**

Test Code: **EPA TO-15**
 Instrument ID: **Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8**
 Analyst: **Svetlana Walsh**
 Sampling Media: **Summa Canister**
 Test Notes:
 Container ID: **AC00750**

Date Collected: **1/13/05**
 Date Received: **1/20/05**
 Date(s) Analyzed: **1/21/05**
 Volume(s) Analyzed: **1.00 Liter(s)**

Pi 1 = -1.8 Pf 1 = 3.5

D.F. = 1.41

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	3.1	1.4	1.0	0.44	
108-88-3	Toluene	13	1.4	3.3	0.37	
100-41-4	Ethylbenzene	2.9	1.4	0.67	0.32	
136777-61-2	<i>m,p</i> -Xylenes	7.8	1.4	1.8	0.32	
100-42-5	Styrene	ND	1.4	ND	0.33	
95-47-6	<i>o</i> -Xylene	2.2	1.4	0.51	0.32	
91-20-3	Naphthalene	ND	1.4	ND	0.27	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **SITE 8**
 Client Project ID: **129 COMMERCIAL ST./06558-707**

CAS Project ID: P2500130
 CAS Sample ID: P2500130-007

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00496

Date Collected: 1/13/05
 Date Received: 1/20/05
 Date(s) Analyzed: 1/21/05
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.5 Pf 1 = 3.5

D.F. = 1.38

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	3.5	1.4	1.1	0.43	
108-88-3	Toluene	12	1.4	3.3	0.37	
100-41-4	Ethylbenzene	2.4	1.4	0.55	0.32	
136777-61-2	<i>m,p</i> -Xylenes	6.4	1.4	1.5	0.32	
100-42-5	Styrene	1.5	1.4	0.35	0.32	
95-47-6	<i>o</i> -Xylene	2.1	1.4	0.48	0.32	
91-20-3	Naphthalene	ND	1.4	ND	0.26	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: kuh Date: 02/03/05

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Haley & Aldrich, Inc.
Client Sample ID: SITE 11
Client Project ID: 129 COMMERCIAL ST./06558-707

CAS Project ID: P2500130
CAS Sample ID: P2500130-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Svetlana Walsh
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00609

Date Collected: 1/13/05
Date Received: 1/20/05
Date(s) Analyzed: 1/22/05
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -4.3 Pf 1 = 3.5

D.F. = 1.75

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	3.4	1.8	1.1	0.55	
108-88-3	Toluene	13	1.8	3.4	0.46	
100-41-4	Ethylbenzene	2.6	1.8	0.60	0.40	
136777-61-2	<i>m,p</i> -Xylenes	6.9	1.8	1.6	0.40	
100-42-5	Styrene	ND	1.8	ND	0.41	
95-47-6	<i>o</i> -Xylene	2.1	1.8	0.49	0.40	
91-20-3	Naphthalene	ND	1.8	ND	0.33	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KWH Date: 02/03/05

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: **Haley & Aldrich, Inc.**
 Client Sample ID: **Method Blank**
 Client Project ID: **129 COMMERCIAL ST./06558-707**

CAS Project ID: P2500130
 CAS Sample ID: P050121-MB

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 1/21/05
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
71-43-2	Benzene	ND	1.0	ND	0.31	
108-88-3	Toluene	ND	1.0	ND	0.27	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
136777-61-2	<i>m,p</i> -Xylenes	ND	1.0	ND	0.23	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	<i>o</i> -Xylene	ND	1.0	ND	0.23	
91-20-3	Naphthalene	ND	1.0	ND	0.19	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 02/03/05

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Haley & Aldrich, Inc. Work order: P2500130
 Project: 129 COMMERCIAL ST./06558-707
 Sample(s) received on: 1/20/05 Date opened: 1/20/05 by: SM

Note: This form is used for all samples received by C.A.S. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client or as required by the method/SOP.

- | | Yes | No | N/A |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were custody seals on outside of cooler/Box? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were custody seals on outside of sample container? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2 Were sample containers properly marked with client sample ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Did sample containers arrive in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Were chain-of-custody papers used and filled out? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Did sample container labels and/or tags agree with custody papers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Was sample volume received adequate for analysis? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 Are samples within specified holding times? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8 Was proper temperature (thermal preservation) of cooler at receipt adhered to? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Cooler Temperature <u>NA</u> °C | | | |
| Blank Temperature <u>NA</u> °C | | | |
| 9 Is pH (acid) preservation necessary, according to method/SOP or Client specified information? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Is there a client indication that the submitted samples are pH (acid) preserved? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were VOA vials checked for presence/absence of air bubbles? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10 Tubes: Are the tubes capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Do they contain moisture? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11 Badges: Are the badges properly capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Lab Sample ID	Required pH	pH (as received, if required)	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2500130-001			NA	
P2500130-002			NA	
P2500130-003			NA	
P2500130-004			NA	
P2500130-005			NA	
P2500130-006			NA	
P2500130-007			NA	
P2500130-008			NA	

Explain any discrepancies: (include lab sample ID numbers): _____

Chain of Custody Record & Analytical Service Request

Air Quality Laboratory
 2665 Park Center Drive, Suite D
 Simi Valley, California 93065
 Phone (805) 526-7161
 Fax (805) 526-7270



Reporting Information (Company Name & Address)

HALEY + ALDRICH, INC.
 465 MEDFORD ST, STE 2200
 CHARLESTOWN, MA 02124

Attention: **NANCY REARDON**

Phone **617-886-7465** Fax **617-886-7765**

Email Address for Result Reporting
nreardon@haleyaldrich.com

P.O. # / Billing Information

Project Name **129 COMMERCIAL ST.**

Project Number **06558-707**

Sampler (Print & Sign)
Nancy Reardon

Client Sample ID	Date Collected	Time Collected	Lab Sample No.	Sample Type (Air/Liquid / Solid/Tube)	Canister ID (Bar Code#)	Flow Controller (Bar Code #)	Sample Volume
SITE 2	1/13/05	800 1542	-1	AIR	AC 00739	FC 00117	✓
SITE 4	1/13/05	804 1544	-2	AIR	AC 00524	FC 00249	✓
SITE 5	1/13/05	805 1545	-3	AIR	AC 00572	FC 00189	✓
SITE 6	1/13/05	807 1546	-11	AIR	AC 00122	FC 00389	✓
SITE 7	1/13/05	810 1548	-5	AIR	AC 00747	FC 00355	✓
SITE 7 (DUP)	1/13/05	810 1548	-6	AIR	AC 00750	FC 00152	✓
SITE 8	1/13/05	812 1550	-7	AIR	AC 00446	FC 00242	✓
SITE 11	1/13/05	811 1549	-8	AIR	AC 00609	FC 00160	✓

Analysis Method and/or Analytes

(*) EPA TO-15
 ✓ benzene
 ✓ toluene
 ✓ ethyl benzene
 ✓ m,p,o-xylene
 ✓ styrene
 ✓ naphthalene

Comments
 e.g. Preservative or
 specific instructions

CAS Project No.

P2500130

Requested Turnaround Time by Close of Business Day (Surcharge) Please Circle:

1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (15%) 10 Day-Standard

CAS Contact:

Project Requirements (MRLs, QAPF)

EDD required Yes / No
 Type: _____

Tier III (QC, Raw Data, Spectra) 10% Surcharge
 Other _____

Report Tier Levels - please select

Tier I - (default if not specified) _____

Tier II (QC forms) _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
<i>Nancy Reardon</i>	1/13/05		<i>Nancy Reardon</i>	1/20/05	1600
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Cooler / Blank Temperature _____ °C

APPENDIX B TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in parts per billion by volume [ppbv])											
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11
13-Jan-05	Benzene	6.6	--	--	1.2	--	0.83	0.87	0.86	0.88	1.1	--	--	1.1
	Ethylbenzene	2.3	--	--	0.65	--	0.62	0.81	0.34	0.54	0.55	--	--	0.6
	m-&p-xylenes	8.3	--	--	1.9	--	1.9	2.4	0.82	1.4	1.5	--	--	1.6
	Naphthalene	1	--	--	ND(0.27)	--	ND(0.24)	ND(0.28)	ND(0.22)	ND(0.23)	ND(0.26)	--	--	ND(0.33)
	o-xylenes	8.3	--	--	0.64	--	0.51	0.59	0.29	0.4	0.48	--	--	0.48
	Styrene	0.7	--	--	ND(0.33)	--	ND(0.3)	ND(0.35)	ND(0.27)	ND(0.28)	0.35	--	--	ND(0.41)
	Toluene	7.7	--	--	4.9	--	4.3	4.2	4	2.7	3.3	--	--	3.4
26-Oct-04	Benzene	6.6	--	--	0.69	--	ND(0.52)	ND(0.48)	ND(0.56)	0.53	ND(0.46)	--	--	0.59
	Ethylbenzene	2.3	--	--	ND(0.33)	--	ND(0.38)	ND(0.35)	ND(0.41)	ND(0.36)	ND(0.34)	--	--	ND(0.36)
	m-&p-xylenes	8.3	--	--	0.83	--	0.74	1	0.71	0.93	0.67	--	--	0.8
	Naphthalene	1	--	--	ND(0.27)	--	ND(0.31)	ND(0.29)	ND(0.34)	ND(0.3)	ND(0.28)	--	--	ND(0.3)
	o-xylenes	8.3	--	--	ND(0.33)	--	ND(0.38)	ND(0.35)	ND(0.41)	ND(0.36)	ND(0.34)	--	--	ND(0.36)
	Styrene	0.7	--	--	ND(0.34)	--	ND(0.39)	ND(0.36)	ND(0.42)	ND(0.37)	ND(0.35)	--	--	ND(0.37)
	Toluene	7.7	--	--	1.8	--	1.8	2.4	3.3	1.8	1.3	--	--	1.8
06-Aug-04	Benzene	6.6	--	--	ND(0.58)	--	ND(1.1)	ND(1.1)	ND(10)	ND(11)	ND(1.1)	--	ND(11)	--
	Ethylbenzene	2.3	--	--	ND(0.42)	--	ND(0.8)	ND(0.78)	ND(7.6)	ND(7.8)	ND(0.81)	--	ND(8)	--
	m-&p-xylenes	8.3	--	--	0.67	--	0.82	ND(0.78)	ND(7.6)	ND(7.8)	ND(0.81)	--	ND(8)	--
	Naphthalene	1	--	--	ND(0.35)	--	ND(0.66)	ND(0.65)	ND(6.3)	ND(6.5)	ND(0.67)	--	ND(6.6)	--
	o-xylenes	8.3	--	--	ND(0.42)	--	ND(0.8)	ND(0.78)	ND(7.6)	ND(7.8)	ND(0.81)	--	ND(8)	--
	Styrene	0.7	--	--	ND(0.43)	--	ND(0.82)	ND(0.8)	ND(7.7)	ND(8)	ND(0.82)	--	ND(8.1)	--
	Toluene	7.7	--	--	1.3	--	2.4	2	ND(8.7)	ND(9)	0.95	--	ND(9.2)	--

APPENDIX B TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in parts per billion by volume [ppbv])											
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11
06-May-04	Benzene	6.6	--	--	ND(0.48)	--	ND(0.59)	0.52	ND(0.59)	ND(0.65)	ND(0.65)	--	ND(0.61)	--
	Ethylbenzene	2.3	--	--	ND(0.35)	--	ND(0.43)	0.4	ND(0.43)	0.47	ND(0.48)	--	ND(0.45)	--
	m-&p-xylenes	8.3	--	--	0.67	--	0.8	1	0.93	1.7	1.2	--	1.5	--
	Naphthalene	1	--	--	ND(0.29)	--	ND(0.36)	ND(0.5)	ND(0.56)	ND(0.56)	ND(0.4)	--	ND(0.57)	--
	o-xylenes	8.3	--	--	ND(0.35)	--	ND(0.43)	0.37	ND(0.43)	0.7	0.52	--	0.59	--
	Styrene	0.7	--	--	ND(0.36)	--	ND(0.44)	ND(0.37)	ND(0.44)	ND(0.43)	ND(0.49)	--	0.65	--
	Toluene	7.7	--	--	23	--	8.9	19	4.8	3.5	2.3	--	2.8	--
12-Feb-04	Benzene	6.6	--	--	6.5	--	ND(0.52)	ND(0.54)	ND(2.7)	ND(4)	ND(5.8)	--	ND(6.3)	--
	Ethylbenzene	2.3	--	--	3.9	--	ND(0.38)	ND(0.4)	ND(2)	ND(3)	ND(4.3)	--	ND(4.6)	--
	m-&p-xylenes	8.3	--	--	12	--	0.47	0.68	ND(2)	ND(3)	ND(4.3)	--	ND(4.6)	--
	Naphthalene	1	--	--	0.39	--	ND(0.32)	ND(0.33)	ND(1.7)	ND(2.5)	ND(3.5)	--	ND(3.8)	--
	o-xylenes	8.3	--	--	4.3	--	ND(0.38)	ND(0.4)	ND(2)	ND(3)	ND(4.3)	--	ND(4.6)	--
	Styrene	0.7	--	--	0.5	--	ND(0.39)	ND(0.41)	ND(2)	ND(3)	ND(4.4)	--	ND(4.7)	--
	Toluene	7.7	--	--	19	--	1.2	1.4	15	ND(3.4)	ND(4.9)	--	ND(5.3)	--
30-Oct-03	Benzene	6.6	--	--	0.61	--	ND(0.53)	ND(0.48)	--	ND(0.55)	ND(1.1)	--	ND(1.2)	--
	Ethylbenzene	2.3	--	--	ND(0.38)	--	ND(0.39)	0.56	--	ND(0.44)	ND(0.8)	--	ND(0.86)	--
	m-&p-xylenes	8.3	--	--	0.7	--	1.2	1.8	--	1.2	ND(0.8)	--	ND(0.86)	--
	Naphthalene	1	--	--	ND(0.31)	--	ND(0.32)	ND(0.29)	--	ND(0.34)	ND(0.66)	--	ND(0.71)	--
	o-xylenes	8.3	--	--	ND(0.38)	--	ND(0.39)	ND(0.35)	--	ND(0.41)	ND(0.8)	--	1.7	--
	Styrene	0.7	--	--	ND(0.38)	--	ND(0.4)	ND(0.36)	--	ND(0.45)	ND(0.81)	--	ND(0.87)	--
	Toluene	7.7	--	--	1.6	--	7.2	6.1	--	6.1	3.5	--	2.7	--

APPENDIX B TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in parts per billion by volume [ppbv])										
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10
23-Jul-03	Benzene	6.6	ND(0.58)	--	--	ND(0.55)	ND(0.51)	ND(1.1)	ND(1.2)	ND(0.77)	--	ND(1.2)	--
	Ethylbenzene	2.3	ND(0.43)	--	--	ND(0.41)	ND(0.38)	ND(0.83)	ND(0.91)	ND(0.57)	--	ND(0.88)	--
	m-&p-xylenes	8.3	ND(0.43)	--	--	0.53	0.6	ND(0.83)	ND(0.91)	0.57	--	1.3	--
	Naphthalene	1	ND(0.35)	--	--	ND(0.34)	ND(0.31)	ND(0.69)	ND(0.76)	ND(0.47)	--	ND(0.75)	--
	o-xylenes	8.3	ND(0.43)	--	--	ND(0.41)	ND(0.38)	ND(0.83)	ND(0.91)	ND(0.57)	--	ND(0.88)	--
	Styrene	0.7	ND(0.44)	--	--	ND(0.42)	ND(0.39)	ND(0.85)	ND(0.93)	ND(0.58)	--	6.7	--
	Toluene	7.7	6.3	--	--	14	17	15	7.4	9.5	--	9.4	--
25-Apr-03	Benzene	6.6	--	--	ND(0.6)	--	ND(0.56)	ND(1.3)	ND(30)	ND(12)	--	ND(34)	--
	Ethylbenzene	2.3	--	--	ND(0.44)	--	ND(0.41)	ND(0.92)	ND(22)	ND(9)	--	ND(25)	--
	m-&p-xylenes	8.3	--	--	ND(0.44)	--	ND(0.41)	ND(0.92)	ND(22)	ND(9)	--	ND(25)	--
	Naphthalene	1	--	--	ND(0.37)	--	ND(0.34)	ND(0.76)	ND(18)	ND(7.5)	--	ND(20)	--
	o-xylenes	8.3	--	--	ND(0.44)	--	ND(0.41)	ND(0.92)	ND(22)	ND(9)	--	ND(25)	--
	Styrene	0.7	--	--	ND(0.45)	--	ND(0.42)	ND(0.94)	ND(22)	ND(9.2)	--	ND(25)	--
	Toluene	7.7	--	--	1.1	--	6.3	11	ND(25)	ND(10)	--	ND(28)	--
24-Jan-03	Benzene	6.6	--	--	0.6	--	ND(0.48)	ND(0.4)	ND(0.51)	ND(0.7)	--	ND(0.55)	--
	Ethylbenzene	2.3	--	--	ND(0.35)	--	ND(0.35)	ND(0.29)	ND(0.37)	ND(0.51)	--	ND(0.4)	--
	m-&p-xylenes	8.3	--	--	0.57	--	ND(0.35)	0.36	0.53	ND(0.51)	--	0.58	--
	Naphthalene	1	--	--	ND(0.29)	--	ND(0.29)	ND(0.24)	ND(0.31)	ND(0.42)	--	ND(0.33)	--
	o-xylenes	8.3	--	--	0.35	--	ND(0.35)	ND(0.29)	ND(0.37)	ND(0.51)	--	ND(0.9)	--
	Styrene	0.7	--	--	ND(0.36)	--	ND(0.36)	ND(0.3)	ND(0.38)	ND(0.52)	--	1	--
	Toluene	7.7	--	--	1.1	--	0.63	0.77	0.64	0.6	--	0.54	--

APPENDIX B TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in parts per billion by volume [ppbv])											
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11
08-Oct-02	Benzene	6.6	--	--	ND(0.71)	--	ND(0.37)	--	ND(0.66)	ND(0.62)	ND(0.62)	--	0.6	--
	Ethylbenzene	2.3	--	--	ND(0.53)	--	ND(0.27)	--	ND(0.49)	ND(0.46)	ND(0.46)	--	0.82	--
	m-&p-xylenes	8.3	--	--	0.36	--	0.59	--	0.49	ND(0.46)	ND(0.46)	--	1.4	--
	Naphthalene	1	--	--	ND(0.44)	--	ND(0.22)	--	ND(0.4)	ND(0.38)	ND(0.38)	--	ND(0.32)	--
	o-xylenes	8.3	--	--	ND(0.53)	--	ND(0.27)	--	ND(0.49)	ND(0.46)	ND(0.46)	--	0.57	--
	Styrene	0.7	--	--	ND(0.54)	--	ND(0.27)	--	ND(0.5)	ND(0.47)	ND(0.47)	--	5.5	--
	Toluene	7.7	--	--	1.2	--	6.5	--	12	2.3	1.8	--	2.5	--
25-Jun-02	Benzene	6.6	--	--	--	--	0.44	ND(0.31)	1.9	1.8	0.97	--	1.7	--
	Ethylbenzene	2.3	--	--	--	--	0.71	ND(0.23)	ND(0.23)	ND(0.23)	ND(0.46)	--	0.71	--
	m-&p-xylenes	8.3	--	--	--	--	2	1.5	0.6	0.68	0.68	--	1.3	--
	Naphthalene	1	--	--	--	--	ND(0.19)	ND(0.19)	ND(0.19)	ND(0.19)	ND(0.38)	--	ND(0.19)	--
	o-xylenes	8.3	--	--	--	--	0.51	ND(0.23)	ND(0.23)	ND(0.23)	ND(0.46)	--	0.51	--
	Styrene	0.7	--	--	--	--	ND(0.23)	ND(0.23)	ND(0.23)	ND(0.23)	ND(0.47)	--	4.7	--
	Toluene	7.7	--	--	--	--	9.2	13	11	5	2.3	--	2.2	--
10-Apr-02	Benzene	6.6	--	--	ND(0.31)	--	ND(0.31)	ND(0.31)	ND(6.3)	1.4	ND(6.3)	--	ND(6.3)	--
	Ethylbenzene	2.3	--	--	ND(0.23)	--	ND(0.23)	0.31	ND(4.6)	ND(0.46)	ND(4.6)	--	ND(4.6)	--
	m-&p-xylenes	8.3	--	--	0.52	--	0.56	1	ND(4.6)	ND(0.46)	ND(4.6)	--	ND(4.6)	--
	Naphthalene	1	--	--	ND(0.19)	--	ND(0.19)	ND(0.19)	ND(3.8)	ND(0.38)	ND(3.8)	--	ND(3.8)	--
	o-xylenes	8.3	--	--	ND(0.23)	--	ND(0.23)	ND(0.23)	ND(4.6)	ND(0.46)	ND(4.6)	--	ND(4.6)	--
	Styrene	0.7	--	--	ND(0.23)	--	ND(0.23)	ND(0.23)	ND(4.7)	ND(0.47)	ND(4.7)	--	ND(4.7)	--
	Toluene	7.7	--	--	1.1	--	5.1	3.8	ND(5.3)	3	ND(5.3)	--	ND(5.3)	--

APPENDIX B TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in parts per billion by volume [ppbv])												
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11	
20-Oct-00	Benzene	6.6	--	--	0.86	--	--	--	--	1.4	--	--	--	--	--
	Ethylbenzene	2.3	--	--	0.29	--	--	--	--	0.46	--	--	--	--	--
	m-&p-xylenes	8.3	--	--	0.98	--	--	--	--	1.4	--	--	--	--	--
	Naphthalene	1	--	--	ND(0.19)	--	--	--	--	2.1	--	--	--	--	--
	o-xylenes	8.3	--	--	0.36	--	--	--	--	0.5	--	--	--	--	--
	Styrene	0.7	--	--	ND(0.23)	--	--	--	--	0.53	--	--	--	--	--
	Toluene	7.7	--	--	1.9	--	--	--	--	6.1	--	--	--	--	--
01-Oct-00	Benzene	6.6	--	--	0.37	--	--	--	--	0.51	--	--	--	--	--
	Ethylbenzene	2.3	--	--	ND(0.23)	--	--	--	--	0.25	--	--	--	--	--
	m-&p-xylenes	8.3	--	--	0.44	--	--	--	--	0.73	--	--	--	--	--
	Naphthalene	1	--	--	ND(0.19)	--	--	--	--	ND(0.19)	--	--	--	--	--
	o-xylenes	8.3	--	--	ND(0.23)	--	--	--	--	0.26	--	--	--	--	--
	Styrene	0.7	--	--	ND(0.23)	--	--	--	--	0.41	--	--	--	--	--
	Toluene	7.7	--	--	1.8	--	--	--	--	3.2	--	--	--	--	--
29-Sep-00	Benzene	6.6	--	--	0.52	--	--	--	--	7.7	--	--	--	--	--
	Ethylbenzene	2.3	--	--	ND(0.23)	--	--	--	--	0.52	--	--	--	--	--
	m-&p-xylenes	8.3	--	--	0.56	--	--	--	--	1.5	--	--	--	--	--
	Naphthalene	1	--	--	ND(0.19)	--	--	--	--	0.31	--	--	--	--	--
	o-xylenes	8.3	--	--	ND(0.23)	--	--	--	--	0.43	--	--	--	--	--
	Styrene	0.7	--	--	ND(0.24)	--	--	--	--	0.38	--	--	--	--	--
	Toluene	7.7	--	--	2.2	--	--	--	--	4.7	--	--	--	--	--

APPENDIX B TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS

SAMPLE	ANALYTE	MADEP Indoor Air Background	Sample Results (Results listed in parts per billion by volume [ppbv])											
			Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11
19-Jul-00	Benzene	6.6	--	--	1	--	0.75	1.9	27	29	9.8	--	20	--
	Ethylbenzene	2.3	--	--	0.47	--	TR(0.35)	TR(0.3)	TR(0.41)	TR(0.33)	TR(0.27)	--	2.1	--
	m-&p-xylenes	8.3	--	--	1.5	--	0.84	0.65	1	0.75	0.74	--	3.8	--
	Naphthalene	1	--	--	ND(0.19)	--	ND(0.19)	ND(0.19)	0.59	0.76	TR(0.32)	--	TR(0.26)	--
	o-xylenes	8.3	--	--	0.57	--	TR(0.32)	TR(0.27)	TR(0.38)	TR(0.31)	TR(0.3)	--	1.5	--
	Styrene	0.7	--	--	ND(0.24)	--	TR(0.26)	TR(0.32)	1.4	0.95	1	--	18	--
	Toluene	7.7	--	--	4.8	--	9.8	9.7	9.7	6.3	6	--	9.1	--
06-Apr-00	Benzene	6.6	--	--	0.72	--	TR(0.56)	ND(0.31)	14	10	26	--	14	--
	Ethylbenzene	2.3	--	--	ND(0.23)	--	3.8	48	ND(0.23)	17	3.9	--	ND(0.23)	--
	m-&p-xylenes	8.3	--	--	0.67	--	13	170	2.7	61	14	--	2.3	--
	Naphthalene	1	--	--	ND(0.19)	--	ND(0.19)	ND(0.19)	ND(0.19)	ND(0.19)	TR(0.47)	--	ND(0.19)	--
	o-xylenes	8.3	--	--	TR(0.23)	--	2.2	31	ND(0.23)	11	2.4	--	TR(0.96)	--
	Styrene	0.7	--	--	ND(0.24)	--	ND(0.24)	ND(0.24)	ND(0.24)	ND(0.24)	ND(0.24)	--	2.2	--
	Toluene	7.7	--	--	2.3	--	43	540	34	170	65	--	5.9	--
22-Feb-00	Benzene	6.6	--	--	0.76	--	0.65	--	18	10	28	--	22	--
	Ethylbenzene	2.3	--	--	0.28	--	0.25	--	0.65	0.38	0.63	--	2.3	--
	m-&p-xylenes	8.3	--	--	0.91	--	0.72	--	2	1.2	2.2	--	4.2	--
	Naphthalene	1	--	--	ND(0.19)	--	ND(0.19)	--	ND(0.19)	ND(0.19)	0.39	--	ND(0.19)	--
	o-xylenes	8.3	--	--	0.3	--	0.24	--	0.67	0.38	0.67	--	1.5	--
	Styrene	0.7	--	--	ND(0.23)	--	ND(0.24)	--	0.41	ND(0.24)	0.42	--	9	--
	Toluene	7.7	--	--	2.3	--	2.5	--	8.7	3.5	4.5	--	6.2	--

**APPENDIX B TABLE I
SUMMARY OF INDOOR AIR QUALITY DATA
129 COMMERCIAL STREET, PARCEL B OF FORMER MALDEN MANUFACTURED GAS PLANT SITE
MALDEN, MASSACHUSETTS**

SAMPLE ANALYTE	Sample Results (Results listed in parts per billion by volume [ppbv])											
	MADEP Indoor Air Background	Site 1	Site 1A	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10

NOTES AND ABBREVIATIONS:

1. OSHA PEL: Permissible Exposure Limits for air contaminants in Title 29 CFR Part 1910.1000, Department of Labor, Occupational Safety Health Administration, 1989 and 1993 final ruling. Based on the lowest of the 8-hour average, 15-minute readings, or instantaneous readings.
2. ACGIH TLV: Threshold Limit Values recommended by the ACGIH. Based on the lowest of the 8-hour average, 15-minute readings, or instantaneous readings.
3. NIOSH REL: 1994 Recommended Exposure Limits from the National Institute of Occupational Safety and Health. Based on the lowest of the 8-hour average, 15-minute readings, or instantaneous readings.
4. MADEP Indoor Air Background Values from: MADEP, "Characterizing Risks Posed by Petroleum Contaminated Sites: Implementation of MADEP VPH/EPH Approach," Final Policy, 31 October 2002 (Policy #WSC-02-411); and MCP Toxicity.xls (MCPstnds.zip), 20 December 2001, available at <http://www.state.ma.us/dep/bwsc/files/standard/gw2/gw2.htm>.
5. VOC (ppb): volatile organic compounds with values in parts per billion by volume; analyzed by EPA Method T014.
6. ND: compound not detected above quantitation limit, number in parentheses is the quantitation limit.
7. TR: compound detected below the quantitation limit, number in parentheses is the quantitation limit.
8. Test Results associated with 6 April 2000 sampling event are not representative of typical indoor air conditions due to interference from products containing VOCs being used inside the facility at the time of sampling.
9. Results collected from the Rooftop sample location on 22 December 1997 are not shown in this table but have been reported in RAM Status reports dated 7 October 2004 and earlier.
10. Due to facility modifications, Sample Location 10 is no longer accessible as of October 2004. This location has been replaced by Sample Location 11; refer to Figure 1 for this sample location.