



# TWIN STATE ENVIRONMENTAL CORP.

P.O. Box 719, Commercial Park, 1A Huntington Road, Richmond, VT 05477

Tel.: (802) 434-3350 • Fax (802) 434-4478

May 16, 1994

Mr. Michael Smith  
Assistant Hazardous Materials Specialist  
State of Vermont  
Hazardous Materials Management Division  
103 South Main Street/West Office  
Waterbury, Vermont 05671-0404

RE: Revised Supplemental Site Investigation Report  
Staco/Chase Facility, Poultney, Vermont  
Revised May 11, 1994  
SMS Site No. 770017  
TSEC Project No. 93-022

HAZARDOUS MATERIALS  
MANAGEMENT DIVISION

MAY 19 11 27 AM '94

Dear Mr. Smith,

Enclosed please find Twin State Environmental Corporation's (TSEC) Revised Supplemental Investigation Report for the above referenced site. This revised report incorporates TSEC's response to the HMMD comment letter dated March 28, 1994. More specifically, the items addressed include the Staco/Chase Supplemental Site Investigation Report Specific Comments 1, 2, and 4 through 7. Comments 3 and 8 are addressed below.

Comment #3 - Page 14, 5.4 Building Vent Summary - Please explain in more detail the correlation between the building vents and the soil contamination.

TSEC's Response - Previous work by TSEC personnel at other mercury sites showed that vapor phase mercury emitted from manufacturing vents on rooftops condensed back to liquid phase mercury and accumulated on the rooftop and rain gutters. Similarly the distribution of mercury previously removed from the Staco site and the areas identified in TSEC's Site Investigation Report are located proximate to the former heated mercury process areas. Wall and ceiling vents are pathways for mercury vapors to exit the building and subsequently condense and fall back to the ground surface. Also, the roof runoff from the north side of the Staco building accumulates in a gutter and flows to a downspout at the northwest corner of the Staco building. The runoff from the downspout leads to a drainage swale were TSEC identified mercury contaminated soil. (SB-106 - SB-108)

Comment #8 - Table 3: This table reports MW-3 as an off-site well. This does not match Table 2 which reports MW-3 as an on-site well. Also, the analytical results for MW-3 reported on Table 2 do not match the results reported on Table 3. Please explain this discrepancy.

TSEC's Response - There are two monitoring wells identified as MW-3. The off-site MW-3 was a temporary well, which no longer exists, installed by the Johnson Company. The on-site MW-3 well was installed by NEIM in August 1992. This is the MW-3 indicated on the current site plan. A note clarifying the identity of the off-site well MW-3 has been added to Table 3 attached in the Revised Supplemental Investigation Report.

If you have any further questions, please do not hesitate to call me at 434-3350.

Sincerely,

TWIN STATE ENVIRONMENTAL CORPORATION

A handwritten signature in black ink, appearing to read "Cynthia Sprague". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Cynthia Sprague  
Senior Hydrogeologist

CAS/abc

encl.

c.c.: Mr. Robert Sirkus, Chase

6/smith2.ltr



# TWIN STATE ENVIRONMENTAL CORP.

P.O. Box 719, Commercial Park, 1A Huntington Road, Richmond, VT 05477

Tel.: (802) 434-3350 • Fax (802) 434-4478

REVISED  
SUPPLEMENTAL SITE INVESTIGATION REPORT

STACO/CHASE FACILITY  
POULTNEY, VERMONT

SMS SITE NO. 770017

TSEC PROJECT NO. 93-022

REVISED MAY 11, 1994

Prepared by:

TWIN STATE ENVIRONMENTAL CORP.  
P.O. BOX 719  
RICHMOND, VERMONT 05477

SITE INVESTIGATION  
STACO/CHASE FACILITY

TABLE OF CONTENTS

	<u>SECTION</u>	<u>PAGE</u>
1.0 INTRODUCTION .....	1	1
2.0 OBJECTIVES.....	1	1
3.0 SCOPE OF WORK.....	1	1
4.0 SUMMARY OF FIELD ACTIVITIES .....	2	2
<u>4.1 Drilling Activities</u> .....	2	2
<u>4.2 Groundwater Sampling</u> .....	3	3
<u>4.3 Soil Sampling</u> .....	4	4
<u>4.4 Building Vent Survey</u> .....	5	5
<u>4.5 Elevation Survey</u> .....	5	5
<u>4.6 Data Validation</u> .....	6	6
5.0 RESULTS OF FIELD ACTIVITIES.....	6	6
<u>5.1 Monitoring and Observation Well Installations</u> .....	6	6
<u>5.2 Groundwater Sampling</u> .....	6	6
5.2.1 Summary of Volatile Organic Analysis .....	7	7
5.2.2 Summary of Mercury Analysis .....	11	11
<u>5.3 Soil Sampling</u> .....	11	11
5.3.1 Glass Fill Area.....	12	12
5.3.2 Southwest Corner of the Staco Building.....	12	12
5.3.3 Area Between Staco and Chase Building.....	13	13
5.3.4 Wet Area North of Staco Building.....	13	13
<u>5.4 Building Vent Survey</u> .....	14	14
<u>5.5 Data Validation</u> .....	14	14
6.0 FINDINGS AND CONCLUSIONS.....	15	15
7.0 RECOMMENDATIONS.....	17	17
TABLES		
FIGURES		
APPENDIX A		
APPENDIX B		

## 1.0 INTRODUCTION

This report has been prepared by Twin State Environmental Corporation (TSEC) to present the findings associated with a supplemental Site Investigation conducted at the Staco/Chase facility located in Poultney, Vermont (SMS site number 770017). This investigation was conducted in response to findings presented in the Site Investigation report prepared for this facility by NEIM, Inc. (dated December 21, 1992). The overall investigation of this site was initiated to meet the requirements stated in Appendix VII of a Partial Consent Decree (PCD) between the State of Vermont and the Chase Instruments Corporation (et. al.) dated September 24, 1991.

The activities conducted and therefore discussed in this report were originally proposed for implementation by TSEC in a draft work plan dated May 21, 1993. This phase of work incorporates comments issued by the Sites Management Section of the Vermont Agency of Natural Resources (SMS) in correspondence dated February 2, 1993 and May 26, 1993.

Where applicable, the activities conducted throughout this investigation have been implemented in accordance with the provisions and procedures defined for this project by the Quality Assurance Project Plan (QAPP) document (January 24, 1992).

## 2.0 OBJECTIVES

As stated in the draft work plan document, the overall objective of this phase of investigation was to develop a better understanding of the conditions which exist at the site for the purpose of determining the need for remedial activities. As a result of data generated by the Site Investigation (SI), several specific issues of concern were identified with regard to the site, and subsequently addressed in this supplemental investigation. These issues include: the quality of groundwater underlying the site and migrating off-site; the presence of mercury contamination in surficial soils located in several areas of the site; and, possible contaminant migration pathways from inside of the Staco building to the outside.

## 3.0 SCOPE OF WORK

As proposed, and /or required by the QAPP document, the following activities were conducted for this phase of site evaluation in order to meet the objectives stated above and subsequently comply with the requirements stated in Appendix VII of the PCD.

- One (1) groundwater monitoring well was installed on site. The installation of this well included screening and classification of subsurface soils for the identification of soil type and the presence of contamination.
- Three (3) observation wells were also installed on site. These wells are intended for the collection of water level elevation data only, and therefore were not subjected to screening during installation.
- Water level elevation data was collected from seven (7) on-site monitoring wells, three (3) on-site observation wells, and five (5) off-site monitoring wells. This data was later used to generate a map which depicts groundwater flow within the vicinity of the site.
- Samples for laboratory analysis of volatile organic compounds and total and dissolved mercury were collected from seven (7) on-site monitoring wells, and five (5) off-site monitoring wells.

- A total of 17 surficial soil samples were collected from four (4) areas of concern and analyzed for the presence of total mercury.
- A vent survey was conducted from the outside of the Staco building to identify potential pathways for the migration of mercury vapors from inside the Staco building to outdoor areas.
- The location of each monitoring well, observation well and surficial soil sample completed during this phase of site evaluation was surveyed for location and elevation data. This data was incorporated into the existing site survey.
- All data generated by this phase of evaluation was reviewed for compliance with the QA/QC requirements set forth in the QAPP document.

A discussion of each project activity is provided in the following section of this report. Findings conclusions and recommendations associated with this project are presented in subsequent sections of this document.

#### 4.0 SUMMARY OF FIELD ACTIVITIES

The field activities discussed below were conducted by TSEC during the period of June to August 1993. All drilling associated with this project was conducted by Adams Engineering and the analytical services were provided by Aquatec, Inc. The collection of survey data and the subsequent revision to the original site drawing was completed by Cowan Surveying.

##### 4.1 Drilling Activities

The drilling phase of this project, which included the installation of one monitoring well (MW-7) and three observation wells (OW-1, OW-2, and OW-3), was conducted on June 21, 1993 with the use of a solid auger drill rig equipped with 5 foot split spoons. Throughout the drilling activities TSEC was present to inspect soils retrieved from MW-7 for classification and contaminant screening, and to determine the appropriate placement of well screens at all four well locations.

The construction details of MW-7 and the observation wells are illustrated by the well logs provided in Appendix A. The well log provided for MW-7 additionally includes the results of screening subsurface soils at this location.

As illustrated by the well logs, there are several differences in the construction of MW-7 and the observation wells. These differences are primarily due to the intended use of each type of well. MW-7, which is intended for the collection of water quality samples is constructed of 2 inch diameter machine slotted PVC well screen (slot size 0.010 inch) and solid PVC casing. This well is protected above the ground surface with a steel well guard.

The observation wells are solely intended for the collection of water level data. These wells, therefore are constructed of 2 inch diameter, hand slotted PVC screen, which is not as fine or uniform as machine slotted screen. In order to prevent the accumulation of silt in these wells the screened portion was wrapped with filter fabric. The PVC casings of these wells are not protected by well guards.

In both well types, the annulus around the well screen was backfilled with sand and a bentonite seal was placed present above the sand pack.

The location of each newly installed well is depicted on the Site Survey provided as Figure 1 and discussed as follows.

MW-7 is located between MW-3 and the area reportedly filled by the Chase Corporation with unused glass materials (This area is identified on the Site Survey as the glass fill area). This location was selected at the request of the SMS in order to address the potential that the glass fill materials placed in this area may have introduced contamination to underlying groundwater. This data point is further intended to provide groundwater flow direction data for this portion of the site.

OW-1, OW-2 and OW-3 are situated along the north side of the Staco /Chase building. These observation wells are intended to provide water level elevation data in areas where data gaps previously existed.

#### 4.2 Groundwater Sampling

In order to continue the evaluation of groundwater conditions in the vicinity of the site, TSEC implemented an expanded groundwater sampling program which included the collection of groundwater elevation data and samples for analysis from on and off site monitoring wells. Wells which were incorporated into this sampling event include: the six wells previously installed on site (MW-1, MW-2, MW-3, MW-4, MW-5 and MW-6); the newly installed MW-7, OW-1, OW-2 and OW-3 (note the observation wells were sampled for water level elevation data only); and, five wells located on the Debbie Enterprises property adjacent to the south of this site. The off site wells incorporated in to this episode are identified on the Site Survey (Figure 1) as MW-101, MW-102, MW-103, MW-104 and MW-204.

The collection of groundwater data and samples for analysis was conducted by TSEC on July 8, 1993. In accordance with the protocol prescribed in the QAPP document, this sampling proceeded as follows.

A complete round of water level elevation data was collected from all of the monitoring and observation wells included in this sampling event. This data was recorded for the determination of groundwater flow. With respect to the monitoring wells, this data was additionally used to determine the appropriate volume of water to be purged from each well prior to sampling. Each monitoring well was then purged of a minimum of three well volumes with the use of a peristaltic pump and dedicated polyethylene tubing. As proposed, all purge water was discharged directly to the ground surface.

Following purging, each monitoring well was sampled with the use of a decontaminated Teflon bailer for the analysis of volatile organic compounds (VOAs) by USEPA Method 8240 and total and dissolved mercury by USEPA Method 245.1. Samples for VOA analysis were collected in two 40 ml vials and preserved with hydrochloric acid. Samples for total mercury were collected in 1 liter polypropylene bottles preserved with nitric acid. Samples for dissolved mercury were field filtered with the use of disposable 0.45 micron cellulose acetate filter kits prior to being placed in 1 liter polypropylene bottles preserved with nitric acid. All samples were stored on ice from time of collection until submission to the Aquatec Inc. laboratory.

The results of this groundwater sampling event are summarized on Table numbers 1, 2, 3 and 4, and the laboratory reports are provided in Appendix B. Where applicable, the tabulated data is compared to similar data collected during earlier rounds of groundwater sampling. The results of this sampling are discussed in Section 5.2 of this report.

### 4.3 Soil Sampling

Surficial soil borings were conducted during this phase of evaluation in order to further investigate four (4) areas of concern for the presence of mercury. The areas selected for this evaluation were chosen due to the past encounter of mercury or the potential for dispersion of mercury from the Staco building. Each area of concern investigated through surficial soil sampling is discussed individually below.

- **Glass Fill Area** - This area, located to the north of the Chase building, is a historically wet area which was filled in by the Chase Corporation with gravel and various unused glass materials, including the ends of extruded pipettes and various glass products. These glass materials reportedly all originated from the Chase building and therefore are not believed to have been exposed to mercury or other chemicals prior to use as fill. Due, however, to the use of similar glass materials within the connected Staco building, where mercury and other chemicals were routinely used, a concern has been identified that these fill materials may have in fact been in contact with certain chemicals and subsequently resulted in the introduction of contamination to this area.

The concern for mercury contamination in the soil of the glass fill area was apparently raised initially by a subsurface investigation conducted of this area in 1989 by the Johnson Company of Montpelier, Vermont. According to information provided by the SMS, this earlier investigation revealed one location within the glass fill area which contained elevated concentrations of mercury in soil. This area was additionally investigated through sampling and soil screening for mercury during the initial phase of this SI. The SI related activities, however, did not reveal the detection of mercury levels considered to be elevated above naturally occurring soil levels.

In order to further address this area, and comply with a request by the SMS, the current phase of investigation included the collection and analysis of five soil samples from the glass fill area. These soil locations are identified on the Site Survey (Figure 1) as SB-101, SB-102, SB-103, SB-104 and SB-105. Boring numbers SB-101 and SB-102 were situated adjacent to borings previously installed by the Johnson Company. The remaining borings, however were unbiasedly selected to represent this area. These locations were sampled from the depth interval of 0.0 to 2.0 feet below grade.

- **Southwest Corner of the Staco Building** - The ground surface of this area is described as a gully located below a sidewall vent which originates from the vicinity of the former Mercury Room of the Staco building. This area was also reportedly investigated by the Johnson Company and found by analysis to contain detectable mercury levels in soils. Analysis of soils in this area during the initial phase of this Site Investigation revealed detectable, yet naturally occurring levels of mercury at two out of three locations investigated. The third location evaluated revealed no detectable mercury concentration.

Current activities in this area include the collection and analysis of three soil samples from the surficial depth of 0.0 to 1.0 feet below grade. These sample locations are identified as SB-109, SB-110 and SB-111.

- **Wet Area North of Staco Building** - The area north of the Staco Building is a wet area which accumulates run-off from the improved portions of the site, particularly the parking area. This area has been identified as a concern for

mercury contamination due to its potential as a receptor from the downspout on the north side of the Staco Building.

It is considered likely that historically, mercury vapors originating from inside the Staco Building may have exited the building via roof and wall vents and condensed on surrounding surfaces (such as the roof and ground surface). Mercury which condensed in these areas may have then been transported to this area of concern via runoff. The roof downspout located on the north west corner of the Staco building may have facilitated the migration of mercury from the roof to this area.

This phase of investigation included the collection of three soil samples from the depth interval of 0.0 to 1.0 feet below grade. These sample locations are identified as SB-106, SB-107 and SB-108.

- **Area Between Staco and Chase Buildings** - This area consists of a vacant corridor which is approximately 20 feet by 60 feet in size. The initial SI identified two locations within this corridor which exhibited elevated mercury levels with concentrations as high as 103 parts per million (PPM) as total mercury. This area was further evaluated during this supplemental investigation through the collection of six surficial soil samples from the depth interval of 0.0 to 1.0 feet below grade. Samples collected from this area are identified as SB-112, SB-113, SB-114, SB-115, SB-116 and SB-117.

The shallow soil samples (0.0 to 1.0 feet below grade) were collected from each sampling location by TSEC with the use of a decontaminated stainless steel core sampler or similar utensil. Soil samples from the glass fill area were collected by Adams Engineering using a drill rig equipped with a split spoon sampler. Soils retrieved by these methods were collected as grab samples (i.e. one sample collected to represent each sampling location) and placed in 250 ml amber glassware for laboratory analysis. Each sample was then placed on ice in a cooler until arrival at the Aquatec Inc. Laboratory for analysis.

Each soil sample collected was analyzed for total mercury content by USEPA Method 7471 and total solids by method IN623. The results of this sampling are summarized on Table 5 and discussed in Section 5.3 of this text. The analytical report for these samples is provided in Appendix B.

#### 4.4 Building Vent Survey

In order to address the potential for the historical migration of mercury vapors from inside the Staco Building to outdoor areas via roof and side vents of the building, this phase of the investigation included a visual survey to identify vents originating from the Staco Building. The results of this survey have been incorporated into the site drawing provided as Figure 2 of this report and discussed in Section 5.4 of this report.

#### 4.5 Elevation Survey

As proposed, the site survey generated by Cowan Survey for the initial Site Investigation was updated to reflect the activities conducted for this supplemental investigation. Specifically, this survey included the collection of location and elevation data for each of the newly installed wells (i.e. MW-7, OW-1, OW-2, and OW-3) and the soil sample

locations. The results of this survey are presented on the Site Survey provided as Figure 1.

#### 4.6 Data Validation

In accordance with the requirements of the QAPP document, the data generated by this phase of investigation has been evaluated for compliance with the prescribed quality assurance/quality control (QA/QC) procedures. Section 5.5 of this report has been prepared to summarize the results of this evaluation.

### **5.0 RESULTS OF FIELD ACTIVITIES**

The following sections have been prepared to discuss the results of this supplemental site Investigation. Where applicable, results generated by the current phase of evaluation have been compared to previous evaluation efforts, including the initial phase of this Site Investigation and other on and off-site activities conducted by the Johnson Company.

#### 5.1 Monitoring and Observation Well Installations

Throughout the drilling of MW-7, TSEC was present to screen subsurface soils for the identification of contamination and soil classification. This was accomplished through visual observations and the collection of PID readings for the detection of organic vapors and MVA readings for the detection of mercury vapors. The results of screening and classification are summarized on the well log for MW-7 which is provided in Appendix A.

As indicated, soil types encountered during the drilling of MW-7 ranged from gravel and fill materials at surficial depths, to fine - medium sand to silt with clay silt layers. Screening of soils removed from this location revealed no detectable photo ionization detector (PID) or mercury vapor analyzer (MVA) readings, therefore in accordance with the provisions of the draft Work Plan, no soil samples were collected from this location for laboratory analysis.

#### 5.2 Groundwater Sampling

In order to generate a groundwater flow map which accurately depicts the direction of groundwater flow within the vicinity of the site, TSEC collected water level elevation data from: seven on site monitoring wells; three on-site observation wells; and, five off site monitoring wells. This data, which is summarized on Table 1, has been used to prepare the groundwater contour map which is provided as Figure 3 of this report.

As indicated by the Groundwater Contour Map, groundwater underlying the site appears to travel across the site from east to west. Based on this data, Well number MW-1 is located upgradient from the area of the site's former operations, while in general, MW-5 and off site well numbers MW-102, MW-103 and MW-204 are located hydraulically downgradient or crossgradient from the area of former operations.

In addition to the collection of water level elevation data, on site well numbers MW-1, MW-2, MW-3, MW-4, MW-5, MW-6 and MW-7 and off-site well numbers MW-101, MW-102, MW-103, MW-104 and MW-204 were additionally sampled for the analysis of total and dissolved mercury and volatile organic compounds. The results of these samples and the corresponding QA/QC samples ( including one trip blank, one duplicate sample and one equipment blank) are summarized by parameter for the on site wells and off site wells separately. These summaries are provided as Table numbers 2 , 3 and 4. In

addition to summarizing the current data, each table also provides a comparison to similar, existing data, where available.

### 5.2.1 Summary of Volatile Organic Analysis

Table numbers 2 and 3, respectively, summarize the results of the volatile organic analysis conducted on the samples collected from the on site and off site monitoring wells. As indicated by both tables, five compounds were detected by this analysis, including two compounds which are believed to be related to laboratory contamination. Compounds reported as detected in one or more sample include 1-2 Dichloroethenes (DCE), Methylene Chloride, Tetrachloroethene (PCE), Trichloroethene (TCE) and Acetone. Of these compounds, both Methylene Chloride and Acetone were detected in the laboratory method blank, equipment blank and trip blank. In most cases, therefore, the presence of these two compounds is believed attributable to laboratory contamination. The issue of laboratory contamination is discussed in greater detail in Section 5.5 of this text.

As indicated by Table 1, volatile organic compounds were detected above method detection limits in four of the seven on site monitoring wells sampled for analysis. These wells include MW-3, MW-5, MW-6 and MW-7. In addition, an estimated concentration (i.e. detected below the level of reliable quantification) of a compound not suspected to be influenced by laboratory contamination was also detected in MW-2.

In order to evaluate potential influences on groundwater contamination, Table 1 includes a summary of the most recent round of groundwater data collected from the on site wells. These data, which were collected by NEIM, Inc. on September 18, 1992, were originally reported in the Site Investigation Report prepared for this site.

The available data for each on-site monitoring well is summarized by well as follows.

- MW-1 - The current volatile organic analysis of this well revealed no detectable or estimated compounds. Similarly, the September 1992 analysis of this well revealed only an estimated concentration of Methylene Chloride which is likely to be related to laboratory contamination. MW-1 is located hydraulically upgradient from the historical areas of operations.
- MW-2 - This well is reported by the current analysis to contain estimated concentrations of both DCE (3 ug/l) and Methylene Chloride (1 ug/l). The previous analysis of this well reported the detection of estimated concentrations of Methylene Chloride and Toluene. Toluene was not detected by the current analysis and both occurrences of Methylene Chloride appear to be related to laboratory contamination. This well is located along the upgradient perimeter of the glass fill area.
- MW-3 - This well, which is located hydraulically downgradient from a former UST used for the storage of fuel oil and the Staco building's former area of operations, was reported to contain the most significant VOA contamination of the wells sampled, due to the number of compounds detected and the concentrations reported. Specific

compounds detected by the current analysis of this well include DCE (380 ug/l), Methylene Chloride (7 ug/l), PCE (66 ug/l), and TCE (26 ug/l). Note that although Methylene Chloride was detected in the method blank which corresponds to this sample, the concentration reported for this well is above that reported for the method blank. It is likely therefore, that this compound may have been present in the sample analyzed from this well.

As identified on Table 1, all of the compounds detected in MW-3 are reported to be present in concentrations which exceed state or federal (as applicable) enforcement standards. These standards are provided for each compound on the corresponding data summary tables. The previous VOA analysis of MW-3 revealed similar concentrations of the same compounds detected by this current analysis.

- **MW-4** - Both the current and previous VOA analysis of this well detected an **estimated concentration** of Methylene Chloride. In both cases, this occurrence is believed attributable to laboratory contamination. No other compounds were detected in either round of VOA analysis conducted on this well. MW-4 is located adjacent to the southside of the Staco Building.
- **MW-5** - The current analysis of MW-5 reports the detection of an **estimated concentration** of Methylene Chloride (2 ug/l) and the presence of PCE in a concentration of 7 ug/l. This level reported for PCE exceeds the Vermont Groundwater Enforcement Standard (VGES) for this compound of 0.7 ug/l. The analysis of this well in September 1992 revealed the presence of 5 ug/l of PCE.

MW-5 is located on the south side of the Chase Building, in an area hydraulically downgradient from Staco Building's former area of operations which included the use of mercury. This area is located on the south side of the Staco Building.

- **MW-6** - The current analysis of this well reports the detection of PCE (21 ug/l) as well as **estimated concentrations** of both Methylene Chloride (2 ug/l) and Acetone (4 ug/l).

The concentration of PCE reported by the current analysis represents a slight decrease from the level 38 ug/l reported for this compound in the September 1992 analysis. Despite this decrease, however, the current level of PCE remains above the VGES for this compound.

MW-6 is located immediately downgradient from the Staco Building.

- **MW-7** - The VOA analysis of this newly installed well resulted in the detection of PCE (5 ug/l) and an **estimated concentration** of 2 ug/l DCE. No other VOA analysis exists for this well.

MW-7 is located near the southern perimeter of the glass fill area.

As reported on Table 3, the VOA analysis conducted on samples collected from the off site wells revealed that no compounds were present in levels above method detection limits. Several wells, however, were reported to contain

estimated concentrations of several VOA compounds. These results along with previous data for these wells which was collected by the Johnson Company on August 5, 1991, are discussed by well below. Note however that the analytical method number used for the Johnson Company's analysis is not currently known. Furthermore, no statements can be made regarding the methods used by the Johnson Company to collect or evaluate this data.

- **MW-101** - This well is currently reported to contain estimated concentrations of Methylene Chloride (1 ug/l), PCE (1 ug/l) and Acetone (3 ug/l). Due to detection in the laboratory method blanks, the occurrence of Methylene Chloride and Acetone in this well is believed attributable to laboratory contamination.

The previous sampling of this well detected PCE in a concentration of 14 ug/l. The current level reported for this compound therefore represents a decrease in concentration of this contaminant. This well is located southwest of the Staco Building.

- **MW-102** - This well was found by current analysis to contain estimated concentrations of both DCE (1 ug/l) and Methylene Chloride (1 ug/l). The Methylene Chloride, however, is believed attributable to laboratory contamination. No other compounds were detected by this analysis.

The previous VOA analysis of this well resulted in the detection of 1 ug/l DCE, 2 ug/l PCE and 1 ug/l TCE. Based on a comparison of this data, it appears that concentrations of PCE and TCE may have decreased slightly in this well since August 1991. These results however, are too similar to make conclusive statements regarding the occurrence of contamination in this well.

MW-102 is located downgradient from the Staco Building, along the northern perimeter of the Debbie Enterprises building.

- **MW-103** - This round of sampling revealed estimated concentrations of Methylene Chloride (1 ug/l), PCE (1 ug/l) and Acetone (4 ug/l) in the sample analyzed from this well. The occurrence of Methylene Chloride and Acetone however are believed to be laboratory induced.

The August 1991 analysis of this well reported the detection of 33 ug/l PCE. It therefore appears that the presence of this compound has decreased significantly in this well.

MW-103 is located downgradient from the Staco Building, near the northwest corner of the Debbie Enterprises building.

- **MW-104** - This well, which is located west of the adjacent Debbie Enterprises building, is currently reported to contain an estimated concentration of 2 ug/l of Methylene Chloride. This occurrence however is believed attributable to laboratory induced contamination. No other compounds were detected by the current analysis of this well. Previously, as reported by the August 1991 analysis, this well was reported to contain 1 ug/l of PCE.

- **MW-204** - No compounds were detected by the current analysis of this monitoring well. Furthermore, no previous data is available for this well.

MW-204 is located directly downgradient from the Staco and Chase Buildings, along the railroad right-of-way.

When this VOA data is considered for both the on and off site wells on a compound basis, the following trends are evident.

- **1,2-Dichloroethenes (DCE)** - Due to the detection of DCE in well numbers MW-2 ( which previously did not contain a detectable level of this compound) and MW-7; and, the continued detection of consistent levels of this compound in MW-3 and MW-102, it appears that the extent of DCE contamination has increased since it was initially identified.

The highest groundwater concentration recorded for this compound is 380 ug/l, which was detected by the current analysis of MW-3. This level exceeds the Vermont Groundwater Enforcement Standards (VGES) and maximum contaminant level (MCL) of 70 ug/l for this compound in groundwater. No other well was found to contain DCE in a level at or near the VGES/MCL.

- **Trichloroethene (TCE)** - The compound TCE was detected by both phases of this investigation in MW-3 and in the August 1991 (Johnson Company) sampling event in MW-102. The level reported in MW-3 (26 ug/l) is above the VGES of 5 ug/l for this compound and has remained near this level for approximately one year. The level reported by the August 1991 analysis of MW-102, however, was considerably lower (1 ppb) and is presumed to be an **estimated concentration** below the method detection limit. This data, however, is not currently available to TSEC for evaluation.

Since the current sampling of wells surrounding MW-3 did not reveal the detection of TCE, and the concentration reported in MW-3 remains consistent for the period of 1992 to 1993, it appears that measurable migration of this contaminant has not occurred since its identification in MW-3 in 1992.

- **Tetrachlorethene (PCE)** - This compound was detected by the current analysis above the VGES of 0.7 ug/l in four of the seven on-site wells, including MW-3, MW-5, MW-6, and MW-7; and, two of the five off-site wells, including MW-101 and MW-103. (Note these off-site wells were both reported to contain an **estimated concentration** of 1 ug/l PCE). Earlier data from these wells indicate that on-site wells MW-3, MW-5, and MW-6 contained PCE levels similar to those reported currently, however, the off-site wells previously contained significantly higher levels of this contaminant. Furthermore, additional off-site wells, including MW-102 and MW-104, as well as a temporary well point (MW-3), were also found to contain detectable levels of this compound.

Based on this comparison of data, it is evident that the PCE contamination in the off-site wells has decreased significantly since August 1991, and the concentration in the on-site wells has remained fairly constant over the last year. Accordingly, it is not clear at this time whether all affected wells have been impacted by the same source of

contamination, or if the present situation is the result of more than one source of contamination.

- **Methylene Chloride** - With the exception of the current analysis of MW-1, MW-7, and MW-204, Methylene Chloride was detected in all well samples for which data exists relative to this site. As concluded by the Data Validation section of this report (Section 5.5); however, the occurrence of this compound is believed to be the result of laboratory contamination.
- **Acetone** - The current round of data revealed the detection of Acetone in several well samples; however, in each case this compound was detected in similar or lower levels in the corresponding laboratory method blank. The occurrence of this compound, therefore, is attributed to laboratory contamination.

### 5.2.2 Summary of Mercury Analysis

As summarized by the data provided on Table 4, two groundwater samples included in the current sampling episode were found to contain detectable levels of total mercury. These samples include MW-2 and the duplicate sample collected from MW-3 (note, mercury was not detected in the original (non-duplicate) sample collected from MW-3). The total mercury concentration reported for MW-2 was 0.030 mg/l which exceeds the 0.002 mg/l VGES for total mercury. This level is consistent with the total mercury concentration reported by the September 1992 sampling of this well.

The duplicate sample collected from MW-3 for this sampling event was reported to contain a total mercury concentration of 0.0005 mg/l, which is also the detection limit for the analysis conducted.

Since this analysis did not detect the presence of dissolved mercury in either sample exhibiting the presence of total mercury, it can be concluded that the mercury present is in an undissolved solid form.

As identified on Table 4, in addition to the analysis of the monitoring well and QA/QC samples identified, this sampling event also included the collection of a rain water sample from the roof drain located on the northwest corner of the Staco Building. As speculated above, this drain is believed to have facilitated the transport of mercury from the roof of the Staco Building to the wet area located to the north. As indicated by Table 3, however, no detectable concentration of total mercury was present in the sample.

### 5.3 Soil Sampling

As discussed in Section 4.3 above, soil sampling was conducted throughout four areas of the site to evaluate the surficial soils for the presence of mercury contamination. This task included the collection and analysis of soil samples from 17 sampling locations. In order to evaluate the significance of the results generated by this sampling, the following sections have been prepared to discuss and compare these analytical results to mercury levels which are considered normal for soils in the eastern United States. Based on a

1984 study published by the United States Geological Survey (USGS) entitled "Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States" (USGS Professional Paper 1270, 1984), normal levels of mercury in surficial soils of the eastern United States (east of the 96th meridian) range between 0.01 and 3.4 ppm.

Where available, historical sampling data has been incorporated into the evaluation of each area. In certain cases, this includes sampling conducted by the Johnson Company in 1989. It is noted however, that due to uncertainties regarding the decontamination measures used by the sampler(s), and the analytical method used by the laboratory, the comparability of the Johnson Company data to the current data is questioned.

The analytical results generated by this task are summarized on Table 5 and the analytical reports are provided in Appendix B. Each area evaluated through soil sampling is discussed individually below.

### 5.3.1 Glass Fill Area

As proposed, this area was investigated through the collection of soil samples from five sample locations. These locations, identified on the Site Survey as SB-101 through SB-105 were all sampled from the depth interval of 0.0 to 2.0 feet below grade.

The analysis of samples collected from this area revealed total mercury concentrations ranging from not detectable (<0.2 mg/kg) to a high concentration of 1.42 mg/kg. These results are consistent with the analytical results generated from samples collected of this area during the initial phase of this Site Investigation. The initial round of soil sampling in this area revealed mercury levels ranging from not detectable (<0.2 mg/kg) to 1.04 mg/kg.

All of the samples collected from the glass fill area during this investigation were found to be within normal background ranges for this region of the United States.

Contrary to the results presented here, sampling and analysis conducted at one location within this area in 1989 by the Johnson Company, revealed mercury concentrations at levels elevated above background. This sample location, which is believed to be located in the southern portion of the glass fill area, was found to contain 10.1 mg/kg mercury in the depth interval of 0.0 to 6.0 inches below grade, and 24.5 mg/kg mercury at the depth interval of 6.0 to 12.0 inches below grade. Two additional samples collected by the Johnson Company from this area were found to contain mercury within acceptable background levels.

### 5.3.2 Southwest Corner of the Staco Building

This area was investigated through the collection of three soil samples in order to determine the potential that mercury vapors may have historically migrated from inside the Staco Building via wall vents to this area. The migration of contamination in this area may have been further facilitated by surface water runoff from the roof in this area. The samples conducted in this area, which are identified as SB-109 through SB-111, were collected from the depth interval of 0.0 to 1.0 feet below grade.

The Mercury results of the samples collected from this area ranged from a low of <0.5 mg/kg (not detected) which was reported for SB-109, to a high concentration of 10.5 mg/kg detected in SB-111. SB-110, which was collected

from the area approximately halfway between SB-109 and SB-111 is reported to contain 2.6 mg/kg total mercury.

The initial site investigation activities conducted in this area included the collection and analysis of two samples from the vicinity of SB-109. These sample locations, which were identified in the Site Investigation Report as SB-27 and SB-35 were reported to contain total mercury concentrations of 3.0 mg/kg and 0.55 mg/kg respectively.

Based on these results, only soils from the location of SB-11 appears to exhibit mercury levels above the naturally occurring range of 0.01 to 3.4 ppm discussed above. It is believed that this sample was collected from the same area as sample number S-12 collected by the Johnson Company in 1989. This Johnson Company sample, which was collected from the ground surface, was found to contain 21.8 mg/kg mercury.

### **5.3.3 Area Between Staco and Chase Buildings**

Previous sampling which resulted in the identification of elevated mercury levels in the area between the Staco and Chase Buildings prompted the collection of six soil samples from this area during the current phase of investigation. These locations are identified as SB-112 through SB-117.

As indicated on Table 5, six of the seven samples collected from this area (including one duplicate sample) were found to exhibit mercury levels in excess of normal background ranges. Specifically, these sample results included 4.7 mg/kg from SB-112, 19.6 mg/kg from SB-113, 28 mg/kg in the duplicate sample collected from SB-113, 28 mg/kg from SB-115, 6.0 mg/kg from SB-116 and 4.2 mg/kg from SB-117. SB-114 is reported to contain a mercury concentration of 2.7 mg/kg.

Samples collected from this area during the initial phase of investigation included SB-28 and SB-29. As reported in the Site Investigation report, these samples were found to contain 103 mg/kg and 30 mg/kg respectively. A Johnson Company sample collected from this area in 1989 (S-13) was reported to contain 59.3 mg/kg mercury in the depth interval of 0.0 to 5.0 inches below the ground surface.

### **5.3.4 Wet Area North of Staco Building**

Due to the potential for mercury in runoff originating from the roof of the Staco Building, to accumulate in the wet area north of the Staco Building, soil sample numbers SB-106, SB-107 and SB-108 were conducted in the drainage swale leading to this area. These results all indicate the presence of mercury in levels elevated above naturally occurring concentrations. Specifically, results from this area range from 12.5 mg/kg detected in SB-108 to 58 mg/kg detected in SB-107. SB-106 is reported to contain 15.5 mg/kg total mercury.

This area was not previously investigated for mercury contamination, therefore, no historical data is available for this area.

#### 5.4 Building Vent Survey

Roof and wall vents have been identified as potential pathways for the migration of mercury vapors from inside the Staco Building to surface areas located outside. Therefore a building vent survey was conducted to visually locate these vents. As a result of this survey, a total of 12 vents were identified. These vents are identified on Figure 2. Based on the location of the side wall vents from the oven room and mercury room there appears to be some correlation between the vent locations and the detected soil contamination.

#### 5.5 Data Validation

In accordance with the requirements of the QAPP document prepared for this project, the data generated by this phase of investigation has been reviewed for validation. As a result of this review, the following observations have been made:

- Samples submitted for analysis include: 15 water samples for volatile organic analysis by method 8240; 11 water samples for total mercury analysis by 7470; 10 filtered water samples for the analysis of dissolved mercury by method 7470; and 19 soil samples for the analysis of total mercury by 7471 and total solids by IN623.

Samples analyzed by the laboratory include: 15 water samples plus three method blanks for volatile organic compounds by Method 8240; 11 water samples plus two prep blanks for total mercury by Method 7470; 10 filtered water samples for dissolved mercury by Method 7470; and 19 soil samples for the analysis of total mercury and total solids by method numbers 7471 and IN623, respectively. Note that the analysis of the soil samples did not include the analysis of corresponding method blanks or other laboratory blanks.

- Acceptable holding times of 14 days for the VOA analyses and 28 days for the mercury analyses were met for all samples submitted.
- With one exception, the surrogate recoveries reported for the VOA analyses were within the acceptable range of 85-115% recovery. An 84% recovery of the compound 1,2-Dichloroethanes-d4 was reported for the sample collected from MW-1.
- Duplicate samples which were submitted for analysis include: one water sample for the analysis of total and dissolved mercury and VOAs; and two soil samples for the analysis of total mercury and total solids.

A comparison of the duplicate water sample to it's corresponding original sample (i.e. MW-3D to MW-3) revealed both samples were free from detectable dissolved mercury, and both contained similar VOA contamination. The duplicate sample (MW-3D), however, was found to contain a detectable level of total mercury and an estimated concentration of the VOA compound acetone, whereas the original sample collected from the same well (MW-3) contained no detectable total mercury or acetone. This discrepancy is acceptable due to the detection of total mercury in the duplicate sample at the method detection limit, and the detection of a similar concentration of acetone in the method blank which corresponds to the duplicate sample (see discussion below pertaining to the results of the Method Blanks).

- As noted above, no method blanks or other laboratory blanks were reported to correspond to the soil samples which were analyzed for this project.

- Prep blanks corresponding to water samples analyzed for total mercury revealed acceptable recoveries and no detectable mercury concentration.
- One of three method blanks was found to correspond to each water sample submitted for VOA analysis. No other laboratory blank results were reported with this laboratory package.

All three VOA blanks were found to contain estimated concentrations of methylene chloride. Reported blank concentrations of this compound ranged between 3 ug/l and 6 ug/l. 10 of the 15 samples analyzed for VOA compounds were found to contain methylene chloride in concentrations ranging between 1 ug/l and 3 ug/l. Additionally, sample numbers MW-3 and MW-3D were found to contain increased levels (7 ug/l and 8 ug/l, respectively) of this compound.

The presence of methylene chloride is therefore clearly attributable to laboratory introduced contamination.

Two of the three VOA blanks were reported to contain estimated concentrations of acetone. Of the 10 samples which correspond to the two blanks containing acetone, four were found to contain similar concentrations of acetone. Acetone was not detected in the other six samples. The occurrence of this compound is believed to be attributable to laboratory contamination.

One method blank for the VOA analysis was additionally found to contain an estimated concentration of 2 ug/l total xylenes. This compound was not detected in any sample analyzed for this project.

- The detection limits reported by the laboratory were found to be acceptable for all parameters analyzed.

With the exception of the data related to the apparent laboratory introduced methylene chloride and acetone contamination, the data generated for this project was found to be valid and therefore is believed to be accurate in representing site conditions.

## 6.0 FINDINGS AND CONCLUSIONS

As a result of evaluating the data and information generated by both phases of this Site Investigation as well as other historical data presented in this document for comparative purposes, a number of conclusions have been developed with respect to the conditions existing at this site. These conclusions are summarized as follows:

- Groundwater underlying this site appears, based on water level elevation data generated by current sampling efforts, to flow generally from east to west. An interpretation of this flow is presented as Figure 3 of this report.
- Volatile organic contamination has been identified in association with groundwater underlying this site and the surrounding area (i.e., Debbie Enterprises property). This contamination, which includes the compounds Tetrachloroethene (PCE), Trichloroethene (TCE) and 1,2-Dichloroethenes (DCE), has been detected in on-site wells since the first round of sampling conducted in September 1992 and in off-site wells (i.e., Debbie Enterprises wells) since at least August 1991. The concentrations encountered in the on-site wells over the period of the last year have remained relatively stable, whereas the compounds and concentrations in the off-site wells have decreased significantly over the past two years.

- It is noted that little information is currently available to TSEC regarding sampling and analytical methods used to generate data from off-site wells. This information however, could influence the interpretation of this data.
- Each of the three volatile organic compounds of concern (PCE, TCE, and DCE) were found by the current analysis to be present in one or more on-site monitoring wells in a level which exceeds current enforcement standards (either Vermont Groundwater Enforcement Standards or Maximum Contaminant Levels as applicable). The most widespread volatile organic contaminant associated with this site is PCE, which was detected by the current analysis in four of the seven on-site wells sampled.
- Estimated levels (i.e., below the method detection limit) of PCE and DCE were detected in two off-site monitoring wells which were included in this sampling effort. Previous data from these and other off-site wells indicates that the Debbie Enterprises property previously exhibited contamination similar (in terms of compounds and concentrations detected) to the contamination which is currently reported in association with the Staco/Chase site. It is not currently known whether the source of this contamination was conclusively determined; however, the Debbie Enterprises property is the location of a documented release of waste solvents. This release was reported to the SMS in correspondence from the Johnson Company dated September 25, 1991.
- Due to the absence of detected contamination in off-site well number MW-204, which is located approximately 150 feet hydraulically downgradient from the on-site well with the most significant contamination (MW-3), it does not appear that contamination has migrated off the Staco/Chase site in accordance with groundwater flow.
- Based on the proximity of the Debbie Enterprises property to the Staco/Chase property in terms of groundwater flow; the differences in contaminant levels between the on and off-site wells; and the significant change in off-site well contaminant levels versus relatively stable contaminant levels in the on-site monitoring wells, it cannot be conclusively determined at this time whether the contamination associated with both sites is the result of one or separate sources.
- Due to the direction of groundwater flow, it does not appear likely that the organic contamination which is known to be associated with the adjacent Debbie Enterprises property, has impacted the groundwater underlying the Staco/Chase property. For lack of any other identifiable source, the volatile organic contamination associated with the on-site monitoring wells is generally believed to be the result of limited on-site use of PCE in connection with former operations conducted at the Chase Building.

Reportedly, industrial grades of this solvent were used for equipment cleaning and rags used to apply the solvent were routinely discarded by Chase in on-site dumpsters. It is considered likely that a portion of the solvent absorbed by the discarded rags was released to the surrounding environment where it accumulated in groundwater. It is believed possible that TCE and DCE may have been present as impurities in the initial PCE product.

The exact area previously used for on-site trash storage was located adjacent to the eastern most overhead door to the Chase building. This area is located hydraulically upgradient from well MW-3 where the highest levels of organic contamination have been identified to date.

- Mercury contamination, as total mercury, was detected above the Vermont Groundwater Enforcement Standards for this parameter in MW-2. The occurrence of this

mercury from the Staco Building to the wet area adjacent to MW-2. The potential source via the Staco Building has been mitigated based on the downspout sample collected in June 1993.

- Isolated areas of surficial mercury contamination were identified on site during both phases of this site investigation by comparing analytical results of mercury content in soils to ranges considered normal for the eastern United States. As a result, 3 areas containing elevated mercury levels were identified. These areas, which are roughly delineated on Figure 4 include the following general areas:

1. North of the northwest corner of the Staco Building;
2. Southwest corner of the Staco Building; and
3. Corridor between the Chase and Staco Buildings.

Based on the results generated during the initial phase of this site investigation, surficial mercury contamination is not believed to extend beyond a depth of 1.0 to 2.0 feet below grade.

## 7.0 RECOMMENDATIONS

Throughout the implementation of the activities conducted to date at this site, sufficient data and information has been presented to meet the requirements for a remedial site evaluation work plan as stated in the Van R In;terim Guidance document dated 11/30/90. Accordingly, jTSEC proposes the implementation of the activities listed below in order to address the issues of concern which have been raised as a result of this Site Investigation.

1. Due to the detectable concentrations of contaminants discussed above, TSEC recommends that a semi-annual sampling program be adopted to monitor the groundwater quality underlying the site.

At a minimum, this sampling should include the collection of water level elevation data from all of the on and off-site wells which were included in the most recent round of sampling and the collection of samples for selected analyses from on and off site wells which exhibited detectable contamination in either of the two most recent sampling events. This would result in the collection of samples for volatile organic analysis from well numbers MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-101, MW-102, MW-103, and MW-104; and total mercury from well numbers MW-2 and MW-3. In addition, due to the location of MW-204 which is downgradient from MW-3 and Staco's former area of operations, this well should be sampled for analysis of both volatile organic compounds and total mercury.

For ease of comparison and compliance with the QAPP, the recommended sampling should be conducted using the same procedures and analytical methods which were employed during the current round of sampling.

2. Three areas of surficial mercury soil contamination will be addressed through excavation. These areas are roughly depicted on Figure 4 and include the following general areas:
  1. North of the northwest corner of the Staco Building;
  2. Southwest corner of the Staco Building; and
  3. Corridor between the Chase and Staco Buildings.

Soil will be removed from each area to a depth of 1.0 feet below grade with the use of an excavator. All soils excavated will be stockpiled on polyethylene sheeting and sampled

for appropriate disposal characteristics required for asphalt batching. If, based on the analytical results, the soils qualify for asphalt batching, this method of disposal will be utilized. If soils do not pass the necessary requirements for asphalt batching, other disposal options such as for use as landfill cover material will be considered. These options will be presented to the State HMMD for approval at that time. Prior to disposal, a copy of the analytical results as well as any letters of acceptance will be forwarded to the Vermont HMMD.

All stockpiled material will remain covered with polyethylene until disposal is possible. It is anticipated that this may be on the order of 3 to 4 weeks. Following the removal of soil, each area of excavation will be sampled for total mercury analysis in order to identify the presence of acceptable mercury levels (i.e., < 10.0 mg/kg).

TABLES

Table 1

Groundwater Elevation Summary for 7/8/93  
Staco/Chase Instrument Corp.

Well ID	Top of Casing (ft)	Ground Elevation (ft)	Well Stick Up (ft)	Water Level Below Top of Casing (ft)	Water Level Below Ground Surface (ft)	Water Level Elevation (ft)	Screened interval BGS (ft)
MW-1	446.10	444.2	1.90	15.05	13.15	431.05	10.2 - 19.8
MW-2	435.30	432.9	2.40	5.65	3.25	429.65	3.0 - 5.5
MW-3	435.37	433.3	2.07	8.24	6.17	427.13	3.0 - 12.7
MW-4	443.40	440.7	2.70	14.09	11.39	429.31	7.0 - 16.7
MW-5	437.10	435.0	2.10	11.32	9.22	425.78	3 - 13
MW-6	440.31	437.7	2.61	11.19	8.58	429.12	5.1 - 9.8
MW-7	432.25	432.6	-0.35	4.65	5.00	427.60	2.6 - 7.5
OW-1	434.48	431.7	2.78	9.16	6.38	425.32	5 - 10
OW-2	437.04	433.9	3.14	8.49	5.35	428.55	3 - 7
OW-3	439.38	436.4	2.98	8.88	5.90	430.50	4.3 - 9.3
MW-101	435.81	-	NA	7.70	NA	428.11	NA
MW-102	434.17	-	NA	10.69	NA	423.56	NA
MW-103	431.33	-	NA	8.19	NA	423.14	NA
MW-104	430.17	-	NA	7.53	NA	422.64	NA
MW-204	424.62	-	NA	1.80	NA	422.82	NA

NOTES:

- All water level elevation data collected by TSEC on July 8, 1993.
- BGS - indicates Below Ground Surface.
- NA - indicates Data not Available.

Table 2

Summary of Analytical Results  
Groundwater Samples Collected from On-Site Wells  
Volatile Organic Compounds  
Supplemental Site Investigation  
Staco/Chase Facility

Concentrations in ug/l

On-Site Wells	1,2-Dichloroethenes (DCE)	Methylene Chloride	Tetrachloroethene (PCE)	Trichloroethene (TCE)	Acetone	Toluene
VGES ug/l	70	5	0.7	5	-	2420
MCL ug/l	70	5	5	5	-	1000
MW-1 9/18/92	ND	J	ND	ND	ND	ND
7/8/93	ND	ND	ND	ND	ND	ND
MW-2 9/18/92	ND	J	ND	ND	ND	J
7/8/93	3J	1JB	ND	ND	ND	ND
MW-3 9/18/92	370	9	73	28	ND	ND
7/8/93	380 (360)	7B (8B)	66 (60)	26 (24)	ND (5JB)	ND (ND)
MW-4 9/18/92	ND	J	ND	ND	ND	ND
7/8/93	ND	3JB	ND	ND	ND	ND
MW-5 9/18/92	ND (ND)	J	5 (5)	ND (ND)	ND (ND)	ND (ND)
7/8/93	ND	2JB	7	ND	ND	ND
MW-6 9/18/92	ND	J	38	ND	ND	ND
7/8/93	ND	2JB	21	ND	4JB	ND
MW-7 9/18/92	-	-	-	-	-	-
7/8/93	2J	ND	5	ND	ND	ND
TB 9/18/92	ND	J	ND	ND	ND	ND
7/8/93	ND	1JB	ND	ND	ND	ND
EB 9/18/92	ND	J	ND	ND	ND	ND
7/8/93	ND	1JB	ND	ND	ND	ND

## NOTES:

- All samples analyzed in accordance of EPA Method 8240. Any EPA 8240 compound not listed was not detected in any well.
- 9/18/92 samples collected by NEIM and analyzed by Aquatec, Inc.
- 7/8/93 samples collected by TSEC and analyzed by Aquatec, Inc.
- ND - Not Detected.
- " - " Not Sampled.
- J - compound detected below the method reporting limit.
- B - the compound was present in the method blank. The result reported here is not blank corrected.
- VGES - Vermont Groundwater Enforcement Standard.
- MCL - Maximum Contaminant Levels as per 40 CFR part 141.
- ( ) - duplicate sample concentration.

Table 3

Summary of Analytical Results  
Groundwater Samples Collected from Off-Site Wells  
Volatile Organic Compounds  
Supplemental Site Investigation  
Staco/Chase Facility

Concentrations in ug/l

Off-Site Wells	1,2- Dichloroethenes (DCE)	Methylene Chloride	Tetrachloroethene (PCE)	Trichloroethene (TCE)	Acetone	Toluene
VGES ug/l	70	5	0.7	5	-	2420
MCL ug/l	70	5	5	5	-	1000
MW-101						
8/5/91	ND	NA	14	ND	NA	ND
7/8/93	ND	1JB	1J	ND	3JB	ND
MW-102						
8/5/91	1	NA	2	1	NA	ND
7/8/93	1J	1JB	ND	ND	ND	ND
MW-103						
8/5/91	ND	NA	33	ND	NA	ND
7/8/93	ND	1JB	1J	ND	4JB	ND
MW-104						
8/5/91	ND	NA	1	ND	NA	ND
7/8/93	ND	2JB	ND	ND	ND	ND
MW-204						
8/5/91	-	-	-	-	-	-
7/8/93	ND	ND	ND	ND	ND	ND
MW-3						
7/7/91	ND	NA	12	ND	NA	2
7/8/93	-	-	-	-	-	-

## NOTES:

- All samples analyzed in accordance of EPA Method 8240. Any EPA 8240 compound not listed was not detected in any well.
- 7/7/91 sample collection by The Johnson Company from temporary well.
- 8/5/91 samples collected by The Johnson Company.
- 7/8/93 samples collected by TSEC.
- NA - Data not Available.
- ND - Not Detected.
- " - " Not Sampled.
- J - compound detected below the method reporting limit.
- B - the compound was present in the method blank. The result reported here is not blank corrected.
- VGES - Vermont Groundwater Enforcement Standard.
- MCL - Maximum Contaminant Levels as per 40 CFR part 141.
- Off-site well MW-3 was a temporary well installed by the Johnson Company.

Table 4

Summary of Analytical Results  
 Groundwater Samples Collected 9/18/92 and 7/8/93  
 Mercury Analysis  
 Supplemental Site Investigation  
 Staco/Chase Facility

Well No.	Hg (total) mg/l		Hg (dissolved) mg/l <sup>1</sup>		VGES (mg/l)	MCL (mg/l)
	Date	9/18/92	7/8/93	9/18/92		
MW-1		ND	ND	ND	.002	.002
MW-2		0.034	0.030	ND	.002	.002
MW-3		ND	ND	ND	.002	.002
MW-3Duplicate		-	.0005	-	ND	.002
MW-4		ND	ND	ND	.002	.002
MW-5		ND	ND	ND	.002	.002
MW-5Duplicate		ND	-	ND	-	.002
MW-6		ND	ND	ND	.002	.002
MW-7		-	ND	-	ND	.002
Trip Blank		ND	ND	ND	ND	.002
Equipment Blank		ND	ND	ND	ND	.002
Downspout <sup>2</sup>		-	ND	-	-	.002

NOTES:

- 9/18/92 samples collected by NEIM.
- 7/8/93 samples collected by TSEC.
- ND - Not Detected above 0.0005 mg/l (detection limit).
- " - " Not Collected.
- VGES - Vermont Groundwater Enforcement Standard.
- MCL - Maximum Contaminant Level standard.

<sup>1</sup> Filtered sample

<sup>2</sup> Surface water sample

Table 5

Summary of Analytical Results  
Soil Boring Samples  
Supplemental Site Investigation  
Staco/Chase Facility

Sample Area	Sample No.	mg/kg Mercury	Total Solids	Depth (ft)
Glass Fill	SB-101	<0.2	80.5	0 - 2'
	SB-102	1.42	79.1	0 - 2'
	SB-102D(duplicate)	1.26	80.0	0 - 2'
	SB-103	<0.2	84.7	0 - 2'
	SB-104	0.33	86.7	0 - 2'
	SB-105	0.24	82.7	0 - 2'
Wet Area North of Staco Building	SB-106	15.5*	79.5	0 - 1'
	SB-107	58*	67.9	0 - 1'
	SB-108	12.5*	51.5	0 - 1'
SW Corner of the Staco Building	SB-109	<0.5	88.0	0 - 1'
	SB-110	2.6	89.2	0 - 1'
	SB-111	10.5*	92.6	0 - 1'
Between Chase & Staco Building	SB-112	4.7*	83.4	0 - 1'
	SB-113	19.6*	82.3	0 - 1'
	SB-113D(duplicate)	28*	83.3	0 - 1'
	SB-114	2.7	87.3	0 - 1'
	SB-115	28*	80.5	0 - 1'
	SB-116	6.0*	84.9	0 - 1'
	SB-117	4.2*	88.0	0 - 1'

## NOTES:

- \* Indicates detected mercury level is above 3.4 mg/kg normal background range for soils in Eastern U.S.
- Total solids reported as % weight/total weight.
- < indicates mercury was not detected above the detection limit specified.
- All samples collected by TSEC on June 22, 1993.
- Sample numbers correspond to the locations identified on Figure 1.
- All analysis conducted by Aquatec, Inc. using USEPA Method 7471 - total mercury.

FIGURES

### MONITORING WELLS

WELL ID	TOP CASING	GROUND ELEVATION
MW-1	446.10	444.2
MW-2	435.30	432.9
MW-3	435.37	433.3
MW-4	443.40	440.7
MW-5	437.10	435.0
MW-6	440.31	437.7
MW-7	432.25	432.6
OW-1	434.40	431.7
OW-2	437.04	433.9
OW-3	439.30	436.4

MW-101, TOP WELL GUARD 435.81  
 MW-102, TOP WELL GUARD 434.17  
 MW-103, TOP WELL GUARD 431.53  
 MW-104, TOP WELL GUARD 430.17  
  
 MW-201, TOP WELL GUARD 441.01  
 MW-204, TOP WELL GUARD 424.62

ELEVATIONS BASED ON NGVD '28 FROM  
 "RW 3", A CHISELED SQUARE ON THE  
 NORTHERLY UPSTREAM ABUTMENT OF  
 THE ROUTE 30 BRIDGE ACROSS THE  
 POULTNEY RIVER.

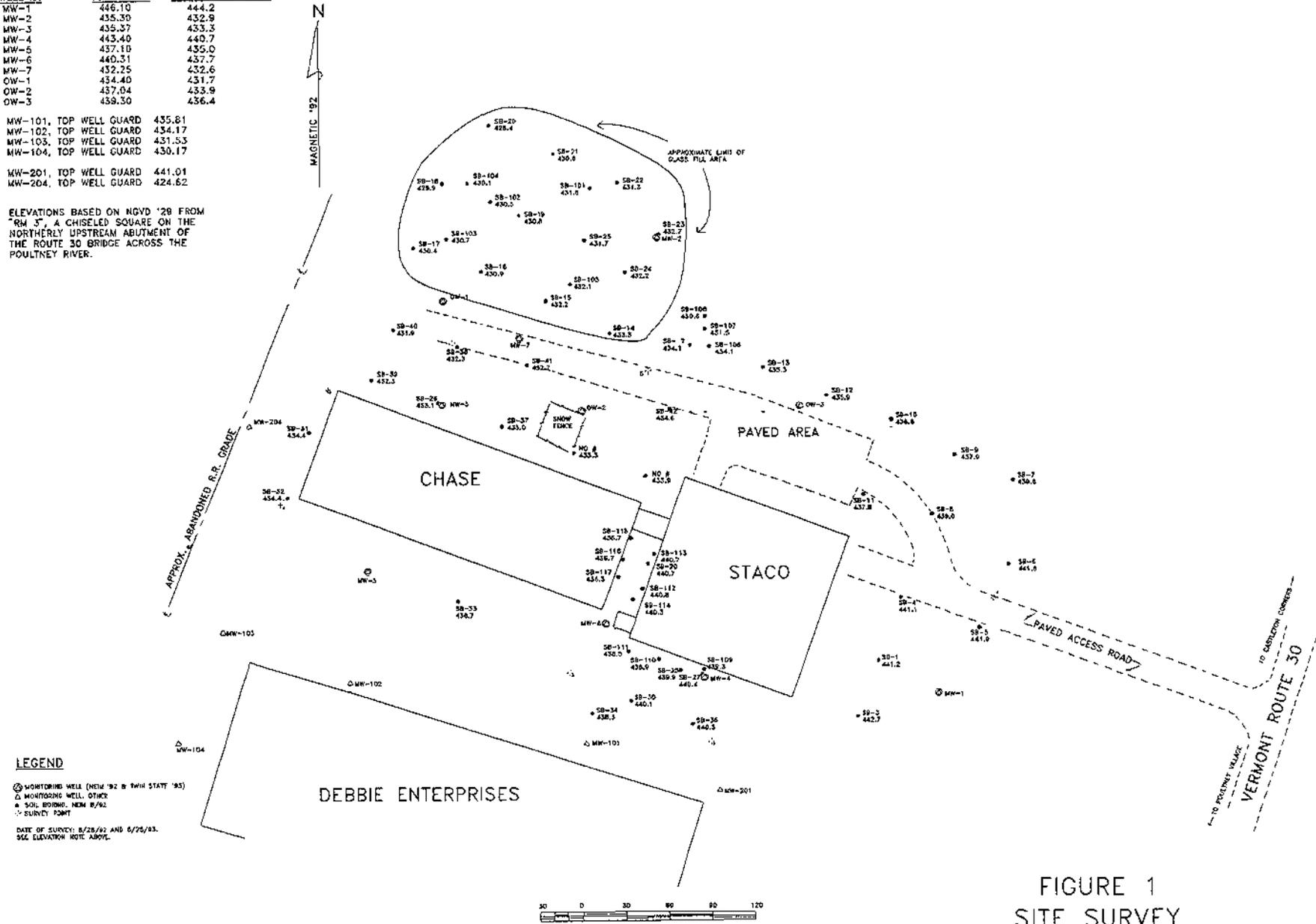


FIGURE 1  
 SITE SURVEY

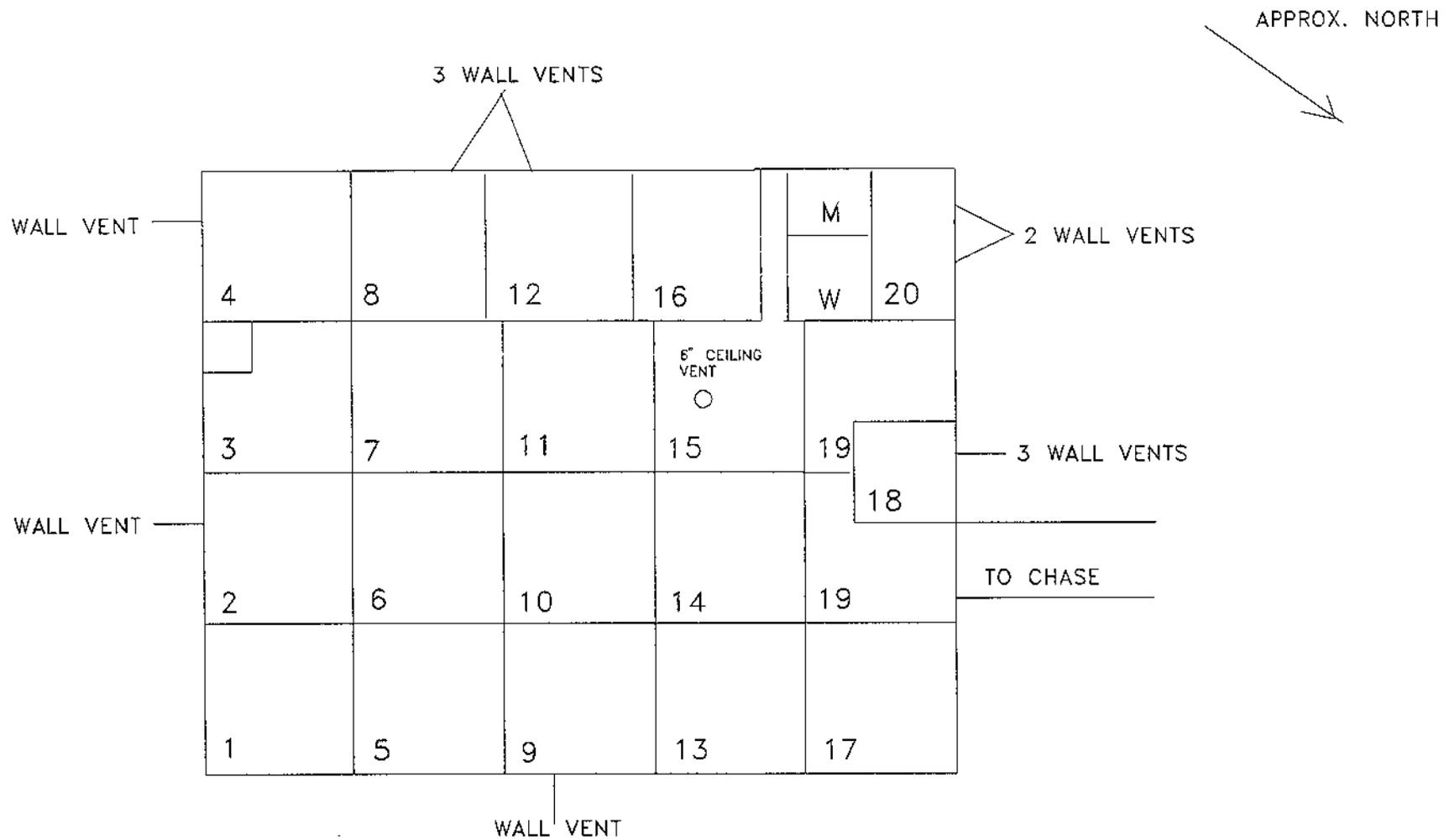


FIGURE 2  
STACO BUILDING SAMPLING AREAS

NOTES: NUMBERS CORRESPOND TO SAMPLING AREAS

NOT TO SCALE

MONITORING WELLS

WELL ID	TOP CASING	GROUND ELEVATION
MW-1	446.10	444.2
MW-2	435.30	432.9
MW-3	435.37	433.3
MW-4	445.40	440.7
MW-5	437.10	435.0
MW-6	440.31	437.7
MW-7	432.25	432.6
DW-1	434.40	431.7
DW-2	437.04	433.9
DW-3	439.30	436.4

MW-101, TOP WELL GUARD	435.81
MW-102, TOP WELL GUARD	434.17
MW-103, TOP WELL GUARD	431.33
MW-104, TOP WELL GUARD	430.17
MW-201, TOP WELL GUARD	441.01
MW-204, TOP WELL GUARD	424.62

ELEVATIONS BASED ON NGVD '28 FROM  
"RM 3", A CHISELED SQUARE ON THE  
NORTHERLY UPSTREAM ABUTMENT OF  
THE ROUTE 30 BRIDGE ACROSS THE  
POULTNEY RIVER.

LEGEND

- ⊙ MONITORING WELL (NEW '92 & NEW STATE '93)
- MONITORING WELL, OTHER
- SOIL BORING, WITH 8/92
- SURVEY POINT

DATE OF SURVEY: 8/28/92 AND 8/25/93.  
SEE ELEVATION NOTE ABOVE.  
429.12' GROUNDWATER ELEVATION IN FEET (7/8/93)  
— GROUNDWATER CONTOUR LINE  
— DIRECTION OF GROUNDWATER FLOW  
ALL GROUNDWATER ELEVATION DATA COLLECTED BY ISEC 7/8/93

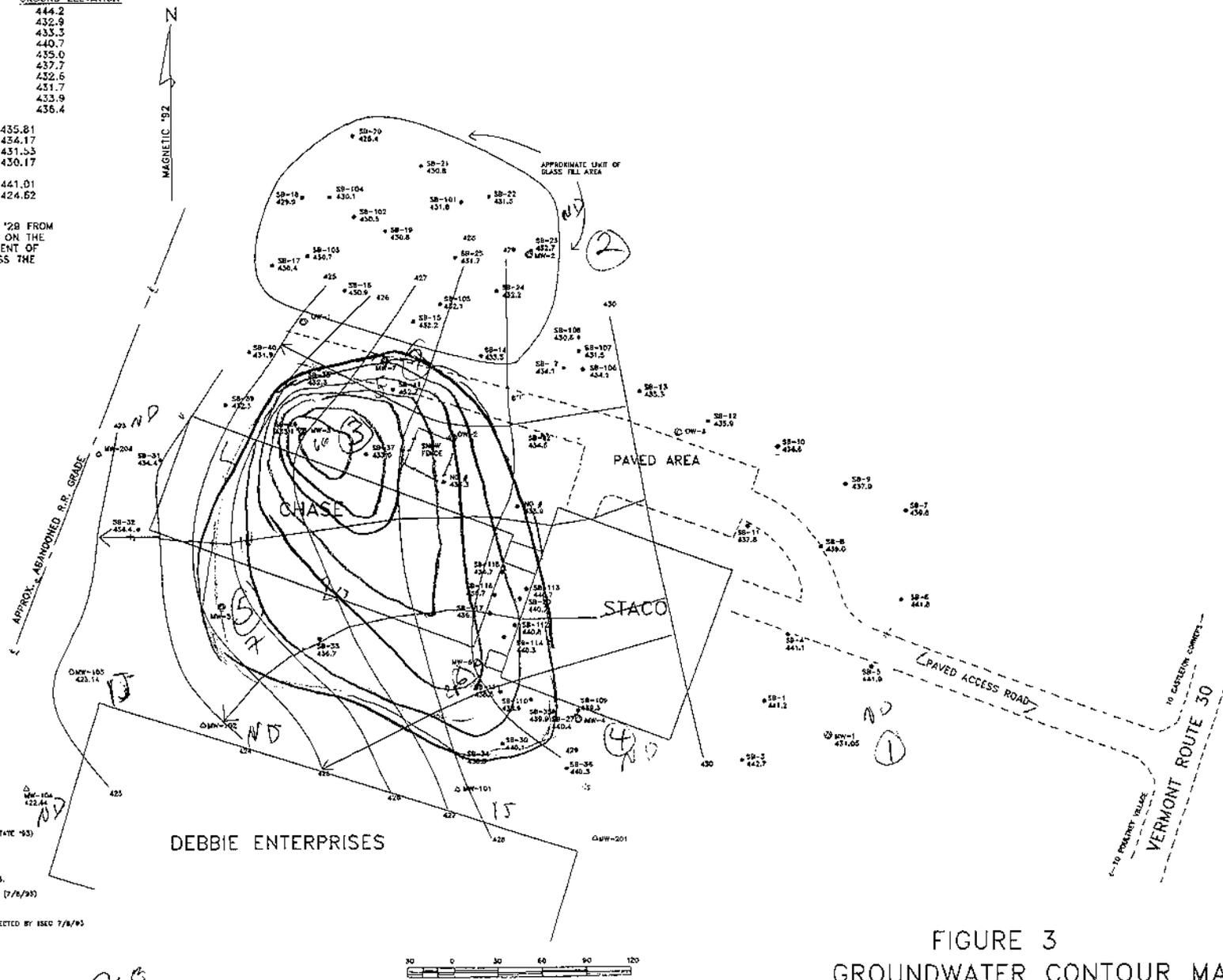


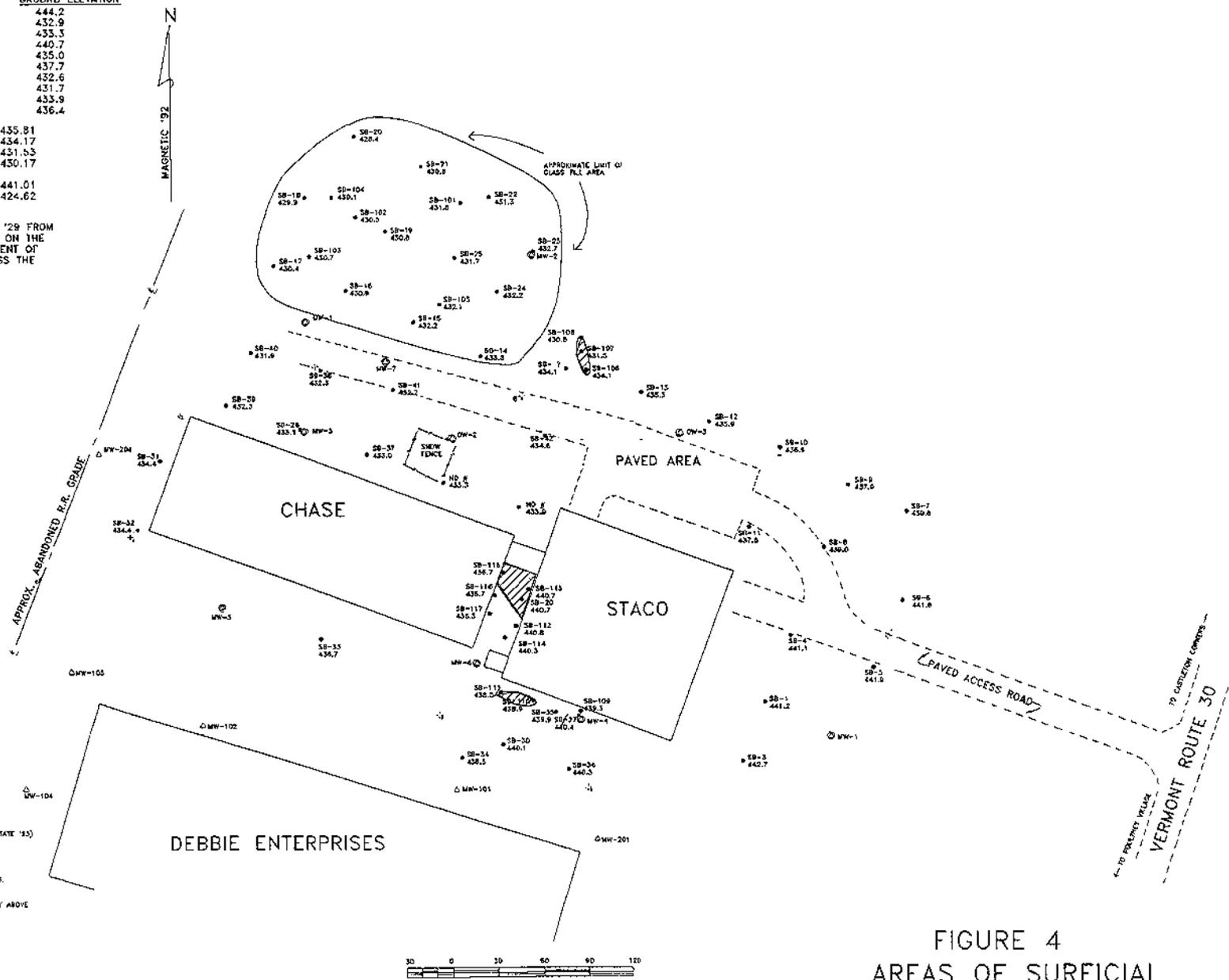
FIGURE 3  
GROUNDWATER CONTOUR MAP

**MONITORING WELLS**

WELL ID.	TOP CASING	GROUND ELEVATION
MW-1	446.10	444.2
MW-2	435.30	432.9
MW-3	435.37	433.3
MW-4	443.40	440.7
MW-5	437.10	435.0
MW-6	440.31	437.7
MW-7	432.25	432.6
OW-1	434.40	431.7
OW-2	437.04	433.9
OW-3	439.30	436.4

MW-101, TOP WELL GUARD 435.81  
 MW-102, TOP WELL GUARD 434.17  
 MW-103, TOP WELL GUARD 431.53  
 MW-104, TOP WELL GUARD 430.17  
  
 MW-201, TOP WELL GUARD 441.01  
 MW-204, TOP WELL GUARD 424.62

ELEVATIONS BASED ON NGVD '29 FROM  
 "RM 3", A CHISELED SQUARE ON THE  
 NORTHERLY UPSTREAM ABUTMENT OF  
 THE ROUTE 30 BRIDGE ACROSS THE  
 POULTNEY RIVER.



**LEGEND**

- MONITORING WELL (NEW '92 & TWIN STATE '85)
  - MONITORING WELL, OTHER
  - ⊕ SOLE BORING FROM 8/92
  - ⊙ SURVEY POINT
- DATE OF SURVEY: 8/28/93 AND 8/29/93.  
 SEE ELEVATION NOTES ABOVE.
- ▨ AREAS FOUND TO CONTAIN MERCURY ABOVE  
 NORMAL BACKGROUND LEVELS  
 (I.E. 0.01 - 3.4 PPM)

**FIGURE 4**  
**AREAS OF SURFICIAL**  
**MERCURY CONTAMINATION**

APPENDIX A

WELL LOGS

I.D.# MW-7

## WELL LOG

SOLID STEM AUGER WITH  
5' SPLIT SPOONS

PROJECT NAME: STACO/CHASE

DRILLING METHOD: \_\_\_\_\_

LOCATION: POULTNEY, VT

DRILLED BY: ADAMS ENGINEERING

DATE: JUNE 21, 1993

LOGGED BY: CINDY SPRAGUE

DEPTH IN FEET	WELL PROFILE	SOIL PROFILE	SOIL DESCRIPTION AND NOTES
1			0 - 1': PAVEMENT, GRAVEL AND SAND (AUGER)
2			1' - 5': APPROXIMATELY 0.5' OF TAN SANDY GRAVEL FILL, SATURATED, OVERLYING GRAY, TAN, BROWN F - M SAND. MARBLED APPEARANCE, NO STRATIFICATION EVIDENT. (APPEARS TO BE FILL OR DISTRUBED MATERIAL). SATURATED. PID = 0.0 PPM MVA = 0.000 MG/M
3			
4			
5			5' - 10': TAN, BROWN STRATIFIED F - M SAND; SILT SOME F. SAND; AND SILT SOME CLAY, SATURATED. (SILT-CLAY LAYERS APPROXIMATELY 0.1' - 0.2' THICK) OVERLYING 1' OF BLUE GRAY STRATIFIED F. SANDY SILT WITH SOME CLAYEY SILT LAYERS. PID = 0.0 PPM MVA = 0.00 MG/M
6			
7			
8			
9			
10			
11			WELL INSTALLATION:
12			WELL SCREEN: 2.5' - 7.5', 2" PVC .010" SLOT
13			SAND PACK: 2' - 7.5' (7.5 - 10' COLLAPSE)
14			BENTONITE GROUT: 1' - 2'
15			WELL COMPLETED WITH FLUSH WITH THE GROUND ROAD BOX CEMENTED IN PLACE.
16			
17			USED 3" CASING TO KEEP HOLE FROM COLLAPSING DURING WELL INSTALLATION.
18			
19			

# WELL LOG

I.D.# OW-1

PROJECT NAME: STACO/CHASE

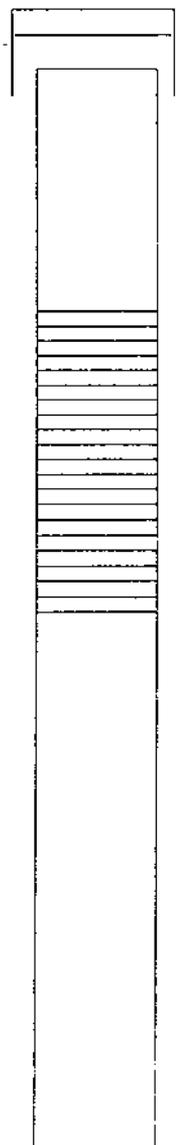
LOCATION: POULTNEY, VT

DATE: JUNE 21, 1993

DRILLING METHOD: SOLID STEM AUGER

DRILLED BY: ADAMS ENGINEERING

LOGGED BY: CINDY SPRAGUE

DEPTH IN FEET	WELL PROFILE	SOIL PROFILE	SOIL DESCRIPTION AND NOTES	
			NO SOIL SAMPLES COLLECTED	
1			SOIL OFF AUGERS ARE SILTY	
2				
3				
4				
5				AUGER TO 10'
6				
7				
8				WELL INSTALLATION:
9				WELL SCREEN: 5' - 10', 2" PVC, HAND SLOTTED, FILTER WRAPPED AND TAPED.
10				SAND PACK: 2.5' - 10' (ALSO COLLAPSE MATERIAL)
11				BENTONITE SEAL: 0 - 2.5'
12				WELL STICK UP: 2.78'
13				
14				
15				
16				
17				
18				
19				

I.D.# OW-2

## WELL LOG

PROJECT NAME: STACO/CHASE

DRILLING METHOD: SOLID STEM AUGER

LOCATION: POULTNEY, VT

DRILLED BY: ADAMS ENGINEERING

DATE: JUNE 21, 1993

LOGGED BY: CINDY SPRAGUE

DEPTH IN FEET	WELL PROFILE	SOIL PROFILE	SOIL DESCRIPTION AND NOTES	
1			NO SOIL SAMPLES COLLECTED	
2				
3				
4				
5				AUGER TO 7'
6				
7				
8				WELL INSTALLATION:
9				WELL SCREEN: 3' - 7', 2" PVC, HAND SLOTTED, FILTER WRAPPED AND TAPED.
10				SAND PACK: 2.5' - 7' (ALSO COLLAPSE MATERIAL)
11				BENTONITE SEAL: 1.5' - 2.5'
12				NATIVE BACKFILL: 0 - 1.5'
13				
14				WELL STICK UP: 3.14'
15				
16				
17				
18				
19				

# WELL LOG

I.D.# OW-3

PROJECT NAME: STACO/CHASE

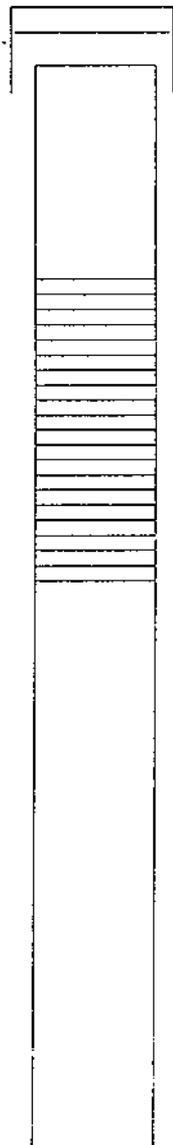
LOCATION: POULTNEY, VT

DATE: JUNE 21, 1993

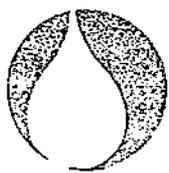
DRILLING METHOD: SOLID STEM AUGER

DRILLED BY: ADAMS ENGINEERING

LOGGED BY: CINDY SPRAGUE

DEPTH IN FEET	WELL PROFILE	SOIL PROFILE	SOIL DESCRIPTION AND NOTES	
1			NO SOIL SAMPLES COLLECTED	
2			SOILS OFF AUGERS ARE BROWNISH GRAY F. SANDY SILT.	
3				
4				
5				AUGER TO 10'
6				
7				
8				WELL INSTALLATION:
9				WELL SCREEN: 4.3' - 9.3', 2" PVC, HAND SLOTTED, FILTER WRAPPED AND TAPED.
10				SAND PACK: 3.3' - 10' (ALSO COLLAPSE MATERIAL)
11				BENTONITE SEAL: 2' - 3.3'
12				NATIVE BACKFILL: 0 - 2'
13				WELL STICK UP: 2.98'
14				
15				
16				
17				
18				
19				

APPENDIX B  
LABORATORY REPORTS



**aquatec** INC.  
INCHCAPE ENVIRONMENTAL

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

JUL 26 1993

ANALYTICAL REPORT

Twin State Environmental  
P.O. Box 711  
St. Albans, VT 05478

Date : 07/22/93  
ETR Number : 37851  
Project No.: 92056  
No. Samples: 26  
Arrived : 07/09/93

Attention : John Diego

Page 1

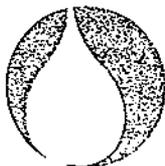
CC Results to : Mr. Robert Sirkus

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Sample Description	Method No.	Parameter	Result
	7470	Mercury, Total	
188738	Downspout:07/08/93 @1335(Water)		<0.0005
188739	Equipment Blank:07/08/93 @1445(Water)		<0.0005
188902	Equipment Blank:07/08/93 @1445(Filtrate)		<0.0005
188740	MW-1:07/08/93 @1300(Water)		<0.0005
188903	MW-1:07/08/93 @1300(Filtrate)		<0.0005
188741	MW-2:07/08/93 @1420(Water)		0.030
188904	MW-2:07/08/93 @1420(Filtrate)		<0.0005
188742	MW-3:07/08/93 @1450(Water)		<0.0005
188905	MW-3:07/08/93 @1450(Filtrate)		<0.0005
188743	MW-3D:07/08/93 @1455(Water)		0.00050
188744	MW-3D:07/08/93 @1455(Filtrate)		<0.0005
188745	MW-4:07/08/93 @1615(Water)		<0.0005
188906	MW-4:07/08/93 @1615(Filtrate)		<0.0005
188746	MW-5:07/08/93 @1540(Water)		<0.0005
188907	MW-5:07/08/93 @1540(Filtrate)		<0.0005
188747	MW-6:07/08/93 @1630(Water)		<0.0005
188908	MW-6:07/08/93 @1630(Filtrate)		<0.0005
188748	MW-7:07/08/93 @1345(Water)		<0.0005
188909	MW-7:07/08/93 @1345(Filtrate)		<0.0005
188754	Trip Blank:07/08/93 @0935(Water)		<0.0005

< Cont. Next Page >





**aquatec** INC.  
INCHCAPE ENVIRONMENTAL

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

ANALYTICAL REPORT

Twin State Environmental  
P.O. Box 711  
St. Albans, VT 05478

Date : 07/22/93  
ETR Number : 37851  
Project No.: 92056  
No. Samples: 26  
Arrived : 07/09/93

Attention : John Diego

Page 2

CC Results to : Mr. Robert Sirkus

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Sample Description	Method No.	Parameter	Result
	7470	Mercury, Total	
188910 Trip Blank:07/08/93 @0935(Filtrate)			<0.0005

Comments/Notes

Prep blanks 1 and 2 for Mercury = <0.0005 mg/l. LCS 1 recovery = 103%.  
LCS 2 recovery = 109%.

< Last Page >

Submitted By :

*R. Mason McNeer*

Aquatec Inc.





**aquatec** INC.  
INCHCAPE ENVIRONMENTAL

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

**ANALYTICAL REPORT**

Date: 22 July 1993  
ETR No.: 37851; Project No.: 92056  
Blank Identification: Blank DQAB002CV for Aquatec Lab No's. 188739 -  
188742 and 188754.

**Volatile Organic Compounds in ug/l  
EPA Method 8240**

benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	5 U
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	10 U
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	5 U	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	3J	vinyl acetate	10 U
		total xylenes	5 U

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d <sub>4</sub>	107
toluene-d <sub>8</sub>	106
p-bromofluorobenzene	105

Key to the letters used to qualify the results of the analysis:

- U - The compound was analyzed for but not detected. The number is the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.





CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

ANALYSIS OF SAMPLES FOR VOCs

Date: 22 July 1993  
ETR No.: 37851; Project No.: 92056  
Blank Identification: Blank ERSB002AV for Aquatec Lab No's. 188743,  
188747, 188749 and 188750.

Volatile Organic Compounds in ug/l  
EPA Method 8240

benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	5 U
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	3J
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	5 U	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	3J	vinyl acetate	10 U
		total xylenes	2J

Summary of Surrogate Recoveries

	<u>% Rec</u>
1,2-dichloroethane-d <sub>4</sub>	105
toluene-d <sub>8</sub>	105
p-bromofluorobenzene	100

Key to the letters used to qualify the results of the analysis:

- U - The compound was analyzed for but not detected. The number is the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.



**aquatec** INC.  
INCORPORATED ENVIRONMENTAL

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

SANPALEONCE AVE. EMBROIDERY

Date: 22 July 1993  
ETR No.: 37851; Project No.: 92056  
Blank Identification: Blank DQAB002FV for Aquatec Lab No's. 188745,  
188746, 188748 and 188751 - 188753.

Volatile Organic Compounds in ug/l  
EPA Method 8240

benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	5 U
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	4J
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	5 U	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	6	vinyl acetate	10 U
		total xylenes	5 U

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d <sub>4</sub>	96
toluene-d <sub>8</sub>	96
p-bromofluorobenzene	93

Key to the letters used to qualify the results of the analysis:

- U - The compound was analyzed for but not detected. The number is the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.





CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

ANALYTICAL REPORT

Date: 22 July 1993  
Aquatec Lab No.: 188739  
ETR No.: 37851; Project No.: 92056  
Sample Received On: 09 July 1993; Analyzed On: 19 July 1993  
Sample Identification: Chase Instruments Corporation, water sample labeled  
Equipment Blank, 07/08/93 at 1445 hours.

Volatile Organic Compounds in ug/l  
EPA Method 8240

benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	5 U
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	10 U
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	5 U	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	LJB	vinyl acetate	10 U
		total xylenes	5 U

Summary of Surrogate Recoveries

	<u>% Rec</u>
1,2-dichloroethane-d <sub>4</sub>	104
toluene-d <sub>8</sub>	101
p-bromofluorobenzene	101

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.





**aquatec** INC.  
INCHCAPE ENVIRONMENTAL

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

ANALYTICAL REPORT

Date: 22 July 1993  
Aquatec Lab No.: 188740  
ETR No.: 37851; Project No.: 92056  
Sample Received On: 09 July 1993; Analyzed On: 19 July 1993  
Sample Identification: Chase Instruments Corporation, water sample labeled MW-1, 07/08/93 at 1300 hours.

Volatile Organic Compounds in ug/l  
EPA Method 8240

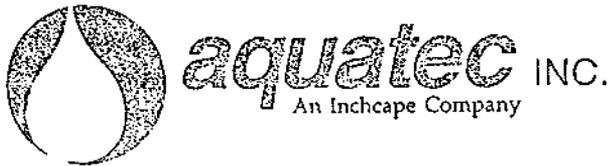
benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	5 U
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	10 U
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	5 U	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	5 U	vinyl acetate	10 U
		total xylenes	5 U

Summary of Surrogate Recoveries

	<u>% Rec</u>
1,2-dichloroethane-d <sub>4</sub>	84
toluene-d <sub>8</sub>	88
p-bromofluorobenzene	88

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.



CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

**ANALYTICAL REPORT**

Date: 22 July 1993  
Aquatec Lab No.: 188741  
ETR No.: 37851; Project No.: 92056  
Sample Received On: 09 July 1993; Analyzed On: 19 July 1993  
Sample Identification: Chase Instruments Corporation, water sample labeled MW-2, 07/08/93 at 1420 hours.

**Volatile Organic Compounds in ug/l  
EPA Method 8240**

benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	5 U
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	10 U
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	3J	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	1JB	vinyl acetate	10 U
		total xylenes	5 U

Summary of Surrogate Recoveries

	<u>% Rec</u>
1,2-dichloroethane-d <sub>4</sub>	99
toluene-d <sub>8</sub>	96
p-bromofluorobenzene	97

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.



**aquatec** INC.  
INCISCAPE ENVIRONMENTAL

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

**ANALYTICAL REPORT**

Date: 22 July 1993  
Aquatec Lab No.: 188742  
ETR No.: 37851; Project No.: 92056  
Sample Received On: 09 July 1993; Analyzed On: 19 July 1993  
Sample Identification: Chase Instruments Corporation, water sample labeled MW-3, 07/08/93 at 1450 hours.

**Volatile Organic Compounds in ug/l  
EPA Method 8240**

benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	66
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	26
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	10 U
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	380	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	7B	vinyl acetate	10 U
		total xylenes	5 U

Summary of Surrogate Recoveries

	<u>% Rec</u>
1,2-dichloroethane-d <sub>4</sub>	105
toluene-d <sub>8</sub>	101
p-bromofluorobenzene	104

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.



CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

ANALYTICAL REPORT

Date: 22 July 1993  
Aquatec Lab No.: 188743  
ETR No.: 37851; Project No.: 92056  
Sample Received On: 09 July 1993; Analyzed On: 20 July 1993  
Sample Identification: Chase Instruments Corporation, water sample labeled MW-3D, 07/08/93 at 1455 hours.

Volatile Organic Compounds in ug/l  
EPA Method 8240

benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	60
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	24
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	5JB
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	360	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	8B	vinyl acetate	10 U
		total xylenes	5 U

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d <sub>4</sub>	99
toluene-d <sub>8</sub>	100
p-bromofluorobenzene	97

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.



**aquatec** INC.  
INCHCAPE ENVIRONMENTAL

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH SURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

ANALYTICAL REPORT

Date: 22 July 1993  
Aquatec Lab No.: 188745  
ETR No.: 37851; Project No.: 92056  
Sample Received On: 09 July 1993; Analyzed On: 20 July 1993  
Sample Identification: Chase Instruments Corporation, water sample labeled MW-4, 07/08/93 at 1615 hours.

Volatile Organic Compounds in ug/l  
EPA Method 8240

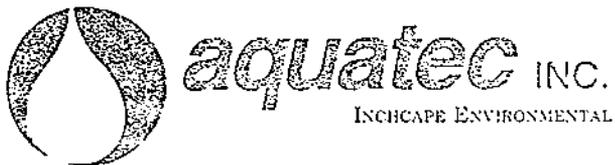
benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	5 U
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	10 U
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	5 U	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	3JB	vinyl acetate	10 U
		total xylenes	5 U

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d <sub>4</sub>	100
toluene-d <sub>8</sub>	102
p-bromofluorobenzene	100

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.



CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

ANALYTICAL REPORT

Date: 22 July 1993  
Aquatec Lab No.: 188746  
ETR No.: 37851; Project No.: 92056  
Sample Received On: 09 July 1993; Analyzed On: 20 July 1993  
Sample Identification: Chase Instruments Corporation, water sample labeled  
MW-5, 07/08/93 at 1540 hours.

Volatile Organic Compounds in ug/l  
EPA Method 8240

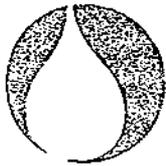
benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	7
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	10 U
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	5 U	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	2JB	vinyl acetate	10 U
		total xylenes	5 U

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d <sub>4</sub>	103
toluene-d <sub>8</sub>	103
p-bromofluorobenzene	102

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.



**aquatec** INC.  
INCHCAPE ENVIRONMENTAL

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

**ANALYTICAL REPORT**

Date: 22 July 1993  
Aquatec Lab No.: 188747  
ETR No.: 37851; Project No.: 92056  
Sample Received On: 09 July 1993; Analyzed On: 20 July 1993  
Sample Identification: Chase Instruments Corporation, water sample labeled MW-6, 07/08/93 at 1630 hours.

**Volatile Organic Compounds in ug/l  
EPA Method 8240**

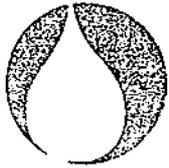
benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	21
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	4JB
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	5 U	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	2JB	vinyl acetate	10 U
		total xylenes	5 U

**Summary of Surrogate Recoveries**

	% Rec
1,2-dichloroethane-d <sub>4</sub>	101
toluene-d <sub>8</sub>	97
p-bromofluorobenzene	94

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.



**ANALYTICAL REPORT**

Date: 22 July 1993  
 Aquatec Lab No.: 188748  
 ETR No.: 37851; Project No.: 92056  
 Sample Received On: 09 July 1993; Analyzed On: 20 July 1993  
 Sample Identification: Chase Instruments Corporation, water sample labeled MW-7, 07/08/93 at 1345 hours.

Volatile Organic Compounds in ug/l  
 EPA Method 8240

benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	5
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethene	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	10 U
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	2J	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	5 U	vinyl acetate	10 U
		total xylenes	5 U

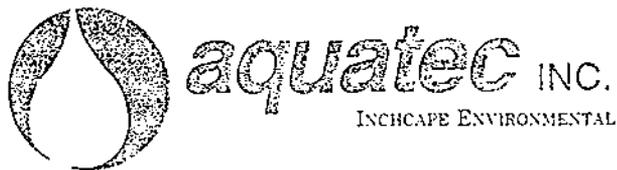
Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d <sub>4</sub>	101
toluene-d <sub>8</sub>	99
p-bromofluorobenzene	97

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.





CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

ANALYTICAL REPORT

Date: 22 July 1993  
Aquatec Lab No.: 188749  
ETR No.: 37851; Project No.: 92056  
Sample Received On: 09 July 1993; Analyzed On: 20 July 1993  
Sample Identification: Chase Instruments Corporation, water sample labeled MW-101, 07/08/93 at 1000 hours.

Volatile Organic Compounds in ug/l  
EPA Method 8240

benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	1J
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	3JB
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	5 U	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	1JB	vinyl acetate	10 U
		total xylenes	5 U

Summary of Surrogate Recoveries

	<u>% Rec</u>
1,2-dichloroethane-d <sub>4</sub>	97
toluene-d <sub>8</sub>	91
p-bromofluorobenzene	87

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.





CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

**ANALYTICAL REPORT**

Date: 22 July 1993  
Aquatec Lab No.: 188750  
ETR No.: 37851; Project No.: 92056  
Sample Received On: 09 July 1993; Analyzed On: 20 July 1993  
Sample Identification: Chase Instruments Corporation, water sample labeled MW-102, 07/08/93 at 1022 hours.

**Volatile Organic Compounds in ug/l  
EPA Method 8240**

benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	5 U
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	10 U
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	1J	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	1JB	vinyl acetate	10 U
		total xylenes	5 U

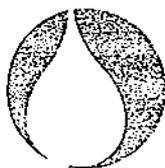
**Summary of Surrogate Recoveries**

	% Rec
1,2-dichloroethane-d <sub>4</sub>	108
toluene-d <sub>8</sub>	100
p-bromofluorobenzene	98

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.





**aquatec** INC.  
INCHCAPE ENVIRONMENTAL

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

**ANALYTICAL REPORT**

Date: 22 July 1993  
Aquatec Lab No.: 188751  
ETR No.: 37851; Project No.: 92056  
Sample Received On: 09 July 1993; Analyzed On: 20 July 1993  
Sample Identification: Chase Instruments Corporation, water sample labeled MW-103, 07/08/93 at 1045 hours.

Volatile Organic Compounds in ug/l  
EPA Method 8240

benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	1J
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	4JB
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	5 U	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	1JB	vinyl acetate	10 U
		total xylenes	5 U

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d <sub>4</sub>	102
toluene-d <sub>8</sub>	98
p-bromofluorobenzene	95

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.



**aquatec** INC.  
INCHCAPE ENVIRONMENTAL

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

**ANALYTICAL REPORT**

Date: 22 July 1993  
Aquatec Lab No.: 188752  
ETR No.: 37851; Project No.: 92056  
Sample Received On: 09 July 1993; Analyzed On: 20 July 1993  
Sample Identification: Chase Instruments Corporation, water sample labeled MW-104, 07/08/93 at 1110 hours.

Volatile Organic Compounds in ug/l  
EPA Method 8240

benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	5 U
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	10 U
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	5 U	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	2JB	vinyl acetate	10 U
		total xylenes	5 U

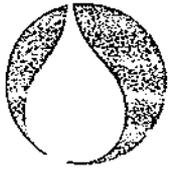
Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d <sub>4</sub>	100
toluene-d <sub>8</sub>	98
p-bromofluorobenzene	100

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.





**aquatec** INC.  
INCHCAPE ENVIRONMENTAL

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

**ANALYTICAL LABORATORY REPORT**

Date: 22 July 1993  
Aquatec Lab No.: 188753  
ETR No.: 37851; Project No.: 92056  
Sample Received On: 09 July 1993; Analyzed On: 20 July 1993  
Sample Identification: Chase Instruments Corporation, water sample labeled MW-204, 07/08/93 at 1135 hours.

**Volatile Organic Compounds in ug/l  
EPA Method 8240**

benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	5 U
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	10 U
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	5 U	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	5 U	vinyl acetate	10 U
		total xylenes	5 U

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d <sub>4</sub>	103
toluene-d <sub>8</sub>	97
p-bromofluorobenzene	97

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.





CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

ANALYTICAL REPORT

Date: 22 July 1993  
Aquatec Lab No.: 188754  
ETR No.: 37851; Project No.: 92056  
Sample Received On: 09 July 1993; Analyzed On: 19 July 1993  
Sample Identification: Chase Instruments Corporation, water sample labeled  
Trip Blank, 07/08/93 at 0935 hours.

Volatile Organic Compounds in ug/l  
EPA Method 8240

benzene	5 U	chloromethane	10 U
carbon tetrachloride	5 U	bromomethane	10 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	5 U	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	5 U
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	5 U
chloroethane	10 U	vinyl chloride	10 U
chloroform	5 U	acetone	10 U
1,1-dichloroethene	5 U	2-butanone	10 U
1,2-dichloroethenes	5 U	carbon disulfide	5 U
1,2-dichloropropane	5 U	2-hexanone	10 U
trans-1,3-dichloropropene	5 U	4-methyl-2-pentanone	10 U
cis-1,3-dichloropropene	5 U	styrene	5 U
methylene chloride	1JB	vinyl acetate	10 U
		total xylenes	5 U

Summary of Surrogate Recoveries

	<u>% Rec</u>
1,2-dichloroethane-d <sub>4</sub>	99
toluene-d <sub>8</sub>	97
p-bromofluorobenzene	97

Key to the letters used to qualify the results of the analysis:

- U - Undetected at the method specified reporting limit.
- J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.
- B - The compound was present in the method blank. The result reported here is not blank corrected.



# CHAIN OF CUSTODY RECORD

F-0058

Page 1 of 2

Aquatec, Inc. 55 South Park Drive

Colchester, VT 05446

(802) 655-1203 / FAX: (802) 655-1248

Client's Reference: _____ Client: <u>TSEC</u> Address: <u>PO Box 711 St Albans VT</u> Comments: _____				Project Name: <u>Chase SI-2</u> Project No.: <u>93-022</u> Quote No.: _____ Collection Date: <u>7-8-93</u> Sampler(s): <u>JD &amp; CAS</u>				Container Type / No. of			
				40ml/2	500ml	500ml					
Sample Identification	Collection Time	Comp.	Grab	Matrix	Analysis / Remarks						
✓ mw 101	10:00		✓	H <sub>2</sub> O	8240, <del>Dis Hg, Tot. Hg, <del>          </del></del> ↓						
✓ 102	10:22										
✓ 103	10:45										
✓ 104	11:10										
✓ 204	11:35										
✓ mw 107 i	13:00										8240, Dis Hg, Tot. Hg, <del>          </del>
✓ 2	14:20					X					
✓ 3	14:50					X					
✓ 3D	16:50					X					
✓ 4	15:40					X					
✓ 5	16:30					X					
✓ 6	13:45		✓			X	↓	↓			
Signature	Company	Date/Time Relinquished		Signature	Company	Date/Time Received					
1	TSEC	7/9/93 15:45		1	Aquatec	7.9.93c 15:15					
2				2							
3				3							

\* Per Client Samples have already been filled.

# CHAIN OF CUSTODY RECORD

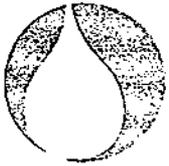
F-0058

Page 2 of 2

Aquatec, Inc.      55 South Park Drive      Colchester, VT 05446      (802) 655-1203 / FAX: (802) 655-1248

Client's Reference: _____ Client: <u>TSEC</u> Address: _____ Comments: _____				Project Name: <u>Chase SI-2</u> Project No.: _____ Quote No.: _____ Collection Date: <u>7-8-93</u> Sampler(s): _____				Container Type / No. of 40ml / 2 20ml 100ml		
Sample Identification	Collection Time	Comp.	Grab	Matrix	Analysis / Remarks					
✓ M07	13:45		X	H <sub>2</sub> O	8240, Dis. Hg, Tot. Hg. <del>8240</del>	X	X	X		
✓ Trip Blank	9:35		X	↓	only 1 vial	X	X	X		
✓ Equip Blank	14:55		X	↓		X	X	X		
✓ Down spout	13:35		X	"	tot. Hg, <del>8240</del>		X			
Signature	Company	Date/Time Relinquished		Signature	Company	Date/Time Received				
1 <u>[Signature]</u>	TSEC	7/9/93 1545		1 <u>[Signature]</u>	Aquatec	7/9/93 1.45				
2				2						
3				3						

1 x 40ml of this sample arr'd. Broken.



**aquatec** INC.  
INCHCAPE ENVIRONMENTAL

JUL 12 REC'D

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

ANALYTICAL REPORT

Twin State Environmental  
P.O. Box 711  
St. Albans, VT 05478

Date : 07/09/93  
ETR Number : 37473  
Project No.: 92056  
No. Samples: 19  
Arrived : 06/22/93

Attention : John Diego

Page 1

CC Results to : Mr. Robert Sirkus

Job:Chase

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
187150	SB101:06/22/93 (Soil)	
7471	Mercury, Total	<0.2 f
IN623	Solids, Total	80.5 c
187151	SB102:06/21/93 (Soil)	
7471	Mercury, Total	1.42 f
IN623	Solids, Total	79.1 c
187152	SB102D:06/21/93 (Soil)	
7471	Mercury, Total	1.26 f
IN623	Solids, Total	80.0 c
187153	SB103:06/21/93 (Soil)	
7471	Mercury, Total	<0.2 f
IN623	Solids, Total	84.7 c
187154	SB104:06/21/93 (Soil)	
7471	Mercury, Total	0.33 f
IN623	Solids, Total	86.7 c
187155	SB105:06/21/93 (Soil)	
7471	Mercury, Total	0.24 f
IN623	Solids, Total	82.7 c

Comments/Notes

f = mg/Kg dry weight  
c = %W/W as received

< Cont. Next Page >



**aquatec** INC.  
INCHCAPE ENVIRONMENTAL

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

ANALYTICAL REPORT

Twin State Environmental  
P.O. Box 711  
St. Albans, VT 05478

Date : 07/09/93  
ETR Number : 37473  
Project No.: 92056  
No. Samples: 19  
Arrived : 06/22/93

Attention : John Diego

Page 2

CC Results to : Mr. Robert Sirkus

Job: Chase

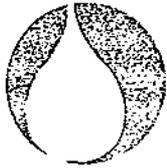
Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
187156	SB106:06/22/93 (Soil)	
7471	Mercury, Total	15.5 f
IN623	Solids, Total	79.5 c
187157	SB107:06/22/93 (Soil)	
7471	Mercury, Total	58 f
IN623	Solids, Total	67.9 c
187158	108:06/22/93 (Soil)	
7471	Mercury, Total	12.5 f
IN623	Solids, Total	51.5 c
187159	SB109:06/22/93 (Soil)	
7471	Mercury, Total	<0.5 f
IN623	Solids, Total	88.0 c
187160	SB110:06/22/93 (Soil)	
7471	Mercury, Total	2.6 f
IN623	Solids, Total	89.2 c
187161	SB111:06/22/93 (Soil)	
7471	Mercury, Total	10.5 f
IN623	Solids, Total	92.6 c

Comments/Notes

f = mg/Kg dry weight  
c = %W/W as received

< Cont. Next Page >



**aquatec** INC.  
INCHCAPE ENVIRONMENTAL

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

~~CONFIDENTIAL~~

Twin State Environmental  
P.O. Box 711  
St. Albans, VT 05478

Date : 07/09/93  
ETR Number : 37473  
Project No.: 92056  
No. Samples: 19  
Arrived : 06/22/93

Attention : John Diego

Page 3

CC Results to : Mr. Robert Sirkus

Job:Chase

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
187162	SB112:06/22/93 (Soil)	
	7471 Mercury, Total	4.7 f
	IN623 Solids, Total	83.4 c
187163	SB113:06/22/93 (Soil)	
	7471 Mercury, Total	19.6 f
	IN623 Solids, Total	82.3 c
187164	SB113D:06/22/93 (Soil)	
	7471 Mercury, Total	28 f
	IN623 Solids, Total	83.3 c
187165	SB114:06/22/93 (Soil)	
	7471 Mercury, Total	2.7 f
	IN623 Solids, Total	87.3 c
187166	SB115:06/22/93 (Soil)	
	7471 Mercury, Total	28 f
	IN623 Solids, Total	80.5 c
187167	SB116:06/22/93 (Soil)	
	7471 Mercury, Total	6.0 f
	IN623 Solids, Total	84.9 c

Comments/Notes

f = mg/Kg dry weight  
c = %W/W as received

< Cont. Next Page >

43



**aquatec** INC.  
INCHCAPE ENVIRONMENTAL

CORPORATE OFFICES  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

LABORATORY LOCATIONS  
55 SOUTH PARK DRIVE  
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE  
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD  
NEW BEDFORD, MA 02740

**ANALYTICAL REPORT**

Twin State Environmental  
P.O. Box 711  
St. Albans, VT 05478

Date : 07/09/93  
ETR Number : 37473  
Project No.: 92056  
No. Samples: 19  
Arrived : 06/22/93

Attention : John Diego

Page 4

CC Results to : Mr. Robert Sirkus

Job: Chase

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
187168	SB117:06/22/93 (Soil)	
7471	Mercury, Total	4.2 f
IN623	Solids, Total	88.0 c

Comments/Notes

f = mg/Kg dry weight  
c = %W/W as received

< Last Page >

Submitted By :

*R. Mason McNeer*  
Aquatec Inc.

# CHAIN OF CUSTODY RECORD

F-0058

Page 1 of 2

Aquatic, Inc.

55 South Park Drive

Colchester, VT 05446

(802) 655-1203 / FAX: (802) 655-1248

Client's Reference: Chase  
 Client: Twin State Environmental Corp  
 Address: 110 Box 711 St Albans VT  
 Comments: \_\_\_\_\_

Project Name: Chase  
 Project No.: \_\_\_\_\_  
 Quote No.: \_\_\_\_\_  
 Collection Date: 6-21 Through 6-22-93  
 Sampler(s): Cindy Spague, Gerry Adams

Container Type / No. of	
250 ml Amber	

Jan's All have SB Before No #  
 (except SB 108 do not)

Sample Identification	Collection Time	Comp.	Grab	Matrix	Analysis / Remarks
SB 101	6-22-93 / 9:15		X	Soil	Hg + % solids
102	6-21-93 / 5:15P				
103	1 / 4:37P				
104	1 / 5:25P				
105	1 / 5:40P				
1021	1 / 5:16P				
* 106	6-22-93 / 9:35A				
107	9:45 A				
108	9:55 A				
109	10:25 A				
110	10:35 A				
111	10:40 A				

Signature	Company	Date/Time Relinquished	Signature	Company	Date/Time Received
<u>Cindy Spague</u>	TSEC	6-22-93 / 3:20P	<u>Gerry Adams</u>	Aquatic	6/22/93 2:20
2			2		
3			3		

\* Grab not checked off on bottle. Note: Am or pm not noted on bottles (June 92)

# CHAIN OF CUSTODY RECORD

N-0058

Page 2 of 2

Aquatic, Inc. 55 South Park Drive Colchester, VT 05446 (802) 655-1203 / FAX: (802) 655-1248

Client's Reference: _____ Client: <u>Twin State</u> Address: _____ Comments: _____	Project Name: <u>Chase</u> Project No.: _____ Quote No.: _____ Collection Date: _____ Sampler(s): _____	Matrix: _____ Analysis / Remarks: _____	Container Type / No. of _____																																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Sample Identification</th> <th style="width: 15%;">Collection Time</th> <th style="width: 10%;">Comp.</th> <th style="width: 10%;">Orab</th> <th style="width: 50%;">Analysis / Remarks</th> </tr> </thead> <tbody> <tr> <td>SB 112</td> <td>6:22:43 / 10:45</td> <td></td> <td>X</td> <td>Hg + % Solids</td> </tr> <tr> <td>113</td> <td>10:50</td> <td></td> <td></td> <td></td> </tr> <tr> <td>113 + D</td> <td>10:51</td> <td></td> <td></td> <td></td> </tr> <tr> <td>114</td> <td>10:55</td> <td></td> <td></td> <td></td> </tr> <tr> <td>115</td> <td>11:05</td> <td></td> <td></td> <td></td> </tr> <tr> <td>116</td> <td>11:10</td> <td></td> <td></td> <td></td> </tr> <tr> <td>117</td> <td>11:15</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Sample Identification	Collection Time	Comp.	Orab	Analysis / Remarks	SB 112	6:22:43 / 10:45		X	Hg + % Solids	113	10:50				113 + D	10:51				114	10:55				115	11:05				116	11:10				117	11:15				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Company</th> <th style="width: 15%;">Date/Time Relinquished</th> <th style="width: 15%;">Signature</th> <th style="width: 15%;">Company</th> <th style="width: 15%;">Date/Time Received</th> </tr> </thead> <tbody> <tr> <td>TSEC</td> <td>6-22-93 / 3:20 P</td> <td>[Signature]</td> <td>Aquatic</td> <td>6-22-93</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Company	Date/Time Relinquished	Signature	Company	Date/Time Received	TSEC	6-22-93 / 3:20 P	[Signature]	Aquatic	6-22-93										
Sample Identification	Collection Time	Comp.	Orab	Analysis / Remarks																																																									
SB 112	6:22:43 / 10:45		X	Hg + % Solids																																																									
113	10:50																																																												
113 + D	10:51																																																												
114	10:55																																																												
115	11:05																																																												
116	11:10																																																												
117	11:15																																																												
Company	Date/Time Relinquished	Signature	Company	Date/Time Received																																																									
TSEC	6-22-93 / 3:20 P	[Signature]	Aquatic	6-22-93																																																									

NOTE: Am or Pm not noted on bottles. (not on this copy.)