

Phase (check one)	Type (check one)
<input checked="" type="checkbox"/> Initial Site Investigation <input type="checkbox"/> Corrective Action Feasibility Investigation <input type="checkbox"/> Corrective Action Plan <input type="checkbox"/> Corrective Action Summary Report	<input type="checkbox"/> Work Scope <input checked="" type="checkbox"/> Technical Report <input type="checkbox"/> PCF Reimbursement Request <input type="checkbox"/> General Correspondence

**LIMITED  
SITE INVESTIGATION**

**Rogers Corporation  
VT Route 30  
Dorset, VT 05251**

**SMS Site #95-1796**

**A Facility Owned By:  
Roger Rumney  
Route 30, Rt 1, Box 63  
Dorset, VT 05251  
(802) 867-5949  
Contact: Roger Rumney**

**Prepared By:  
Dufresne-Henry, Inc.  
Precision Park  
North Springfield, VT 05150  
(802) 886-2261  
Contact: Bruce H. Cox, P.E.**

**August 30, 1995**

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## EXECUTIVE SUMMARY

A Limited Site Investigation has been completed at Rogers Corporation in Dorset, Vermont. The investigation was in response to a Notice of Alleged Violation pertaining to the disposal of 1,1,1-Trichloroethane down a floor drain.

Three shallow groundwater monitoring wells were installed on the site and an adjacent property on the opposite side of Route 30 in July 1995. Those wells and a shallow dug well on the adjacent property were sampled and analyzed for VOC's by EPA Method 8260. Chlorinated compounds above detection limits were found in all but one of the monitoring wells. The concentration of 1,1,1-Trichloroethane in the well nearest the floor drain exceeds the Vermont Enforcement Standard. Soil samples from that boring contained no VOC's above detection limits when analyzed by the same method. No upgradient monitoring well was installed due to unsaturated conditions over an apparent shallow bedrock surface.

The halocarbon plume has migrated off the Rogers Corporation property in a southwesterly direction to at least the Rumney residence across Route 30. The limit of the plume north of the residence is reasonable well defined. Limits of the plume to the south and southwest of the machine shop are not completely delineated.

Soundings of the monitoring wells indicate the direction of groundwater movement is to the southwest. All properties in the immediate vicinity of the site are on the municipal water supply system. Thirty one private bedrock water wells may exist within one-half mile of the site. The nearest public water supply is located approximately 6,500 feet to the west and is topographically higher. The nearest surface water is located in excess of 1,000 feet to the west.

Based on these findings, it is recommended that:

1. The monitoring wells and the shallow well be sampled biannually and analyzed for VOC's by EPA Method 8260. If the concentration of TCA or any other compound in the shallow well exceeds the Vermont Enforcement Standard, additional monitoring wells should be installed and analyzed to determine the extent of the plume. The need for remedial action will be re-evaluated at that time.

**LIMITED SITE INVESTIGATION  
ROGERS CORPORATION  
DORSET, VERMONT**

**Introduction**

Rogers Corporation is located on Vermont Route 30 in Dorset, Vermont. A site location map is included as Appendix A.

The State of Vermont Hazardous Materials Management Division issued a Notice of Alleged Violation dated October 5, 1994 to Roger Rumney. The Notice was in response to a RCRA Complaint Follow-Up Report performed August 18, 1994. The Notice alleged the disposal of 1,1,1-Trichloroethane (TCA) down a floor drain at Rogers Corporation.

**Work and Health and Safety Plans**

In the Notice of Alleged Violation, the Management and Prevention Section (MPS) requested additional investigations at Rogers Corporation. A copy of that letter and the RCRA Complaint Follow-Up Report are included in Appendix B. Dufresne-Henry prepared a Work Plan, and a Health and Safety Plan for the proposed activities at the site. A copy of the proposed work plan was sent to the Hazardous Materials Management Division (HMMD) for review on May 23, 1995. Approval of the work plan, along with a request for an additional monitoring well, soil sampling, and strict installation protocols, was received on June 14, 1995. Copies of these documents will also be found in Appendix B. The remainder of this report describes the on-site activities and subsequent findings based on that work plan.

**Site Description**

Rogers Corporation is located on the east side of Vermont Route 30. The 1.2 acre site consists of a machine shop, metal storage area, and unpaved road and parking areas.

A floor drain is located in the central portion of the northerly end of the building. The site is open and level. The subject property is surrounded by the Dorset Fire Department to the north, residential property to the east, commercial property to the south, and residential property to the west. The property is served by the municipal water system and an on-site wastewater disposal system. The property across Route 30 to the southwest, also owned by the Rumney family, is also considered part of the site. A water sample obtained by the State from the unused shallow well on the property revealed low levels of TCA.

### Site History

The history of the site is not completely known. Rogers Corporation was established in Dorset in 1970 or 1971. The machine shop makes small parts from steel and brass. Brass waste is recycled back to the manufacturer and steel is sent to scrap yards for recycling. Waste oils are reused on-site. Parts are degreased on-site using 1,1,1-Trichloroethane. The virgin solvent is stored in metal drums. Parts are dipped in a smaller container. Waste TCA is stored in a drum in the shop. It has been reported that due to minimal waste generation, disposal of that waste has never occurred.

### Monitoring Well Installation

Three (3) shallow groundwater monitoring wells were installed between the dates of July 21, 1995 and July 25, 1995 by M & W Soils Engineering, Inc. of Charlestown, New Hampshire. All borings and well installations were under the field observation of Dufresne-Henry personnel. The wells are designated MW-1 through MW-3. Well MW-1 was located west of the machine shop near the floor drain, well MW-2 was located on the opposite side of Route 30 northwesterly of the machine shop, and MW-3 was located on the opposite side of Route 30 westerly of the machine shop. An upgradient well on the east side of the machine shop was not installed due to unsaturated soils over probable bedrock. A site sketch showing the well and boring locations is included as Appendix C. Logs of the borings, monitoring well installation reports, and graphs of PID readings vs depth are included in Appendix D.

During boring advancement split spoon soil samples were taken continuously from the surface, or as dictated by subsurface conditions. All samples were screened for the presence of Volatile Organic Compounds (VOC's) with an HNU HW-101 (photoionization detector (11.7 eV lamp, calibrated with isobutylene). The screening was done by headspacing jarred samples at ambient air temperature. In addition, soil samples for possible VOC analysis were obtained from every other split spoon starting with the 2' - 4' sample. All laboratory soil samples were refrigerated while on-site.

Monitoring well MW-1 was located to the west of the machine shop in the presumed downgradient direction from the floor drain. The total depth of the boring was 18'6". The general geologic column is silty, gravelly sand fill to 10', followed by silty, sandy gravel to 18', and possible bedrock below 18'. The water table was encountered at approximately 15'. PID readings ranged from 2.6 ppm to 8 ppm. The PID readings generally decreased with depth to the water table, then increased slightly. No evidence of contamination by visual or olfactory senses was observed.

Monitoring well MW-2 was located to the northwest of the machine shop on the opposite side of Route 30. The total depth of the boring was 23'6" with no refusal. The general geologic column is silty, gravelly sand to 12', followed by stony till to 19'6", silt to 22'6", then till to the limit of the boring. The water table was encountered at approximately 15'. PID readings ranged from .2 ppm to 4 ppm. The PID readings increased below the water table. Abundant cobbles prevented continuous split spoon sampling over some intervals. In the final sample (22' - 23'6") the upper 6" was saturated, while the lower 12" was very nearly dry. For this reason the boring was not advanced further.

Monitoring well MW-3 was located westerly of the machine shop on the opposite side of Route 30. The total depth of the boring was 30'. The general geologic column is silty, gravelly sand to 8'6", followed by coarse gravel to 16', till to 27'9" and possible bedrock below 27'9". The water table was encountered at approximately 16'. PID readings ranged from .2 ppm to 4 ppm. The PID readings varied with depth, with no readily discernable trends.

Two attempts were made to find water on the eastern (upgradient) side of the machine shop. TB-4 and TB-4A were drilled approximately 26.5' apart. Depths to

probable bedrock were approximately 11' in both. A PID reading of 2 ppm was observed in TB-4 in the 10'6" - 10'9" sample. No other evidence of contamination was observed. Both borings were dry to their limits, and no evidence of mottling or other indications of a water table was observed. Monitoring wells were not installed at either location.

A two-inch diameter PVC monitoring well was installed in borings MW-1, MW-2, and MW-3. The wells consist of a 5' screened section with .020" machined slots. The screen in MW-3 was wrapped with a filter sock due the fine grained nature of the till. Each well was backfilled with clean silica sand to a point above the screen and a bentonite seal installed. The wells were protected at the ground surface by grouting in watertight aluminum monitoring well boxes.

### Site Geology

Surficial geology at the site is published as glacial outwash or kame terrace deposits. The site, particularly on the east side of Route 30 near the machine shop appears to have been extensively reworked and filled. Discussions with Roger Rumney indicated that a hill once existed at the machine shop and was removed, presumably for sand and gravel. Filling on the west side of the road is much less widespread.

Published data indicates bedrock at the site is likely the Bascom Formation. The Bascom consists of interbedded dolomite, limestone or marble, calcareous sandstone, quartzite, and limestone breccia. No bedrock outcroppings were observed on the subject property or in the immediate vicinity. If bedrock was in fact encountered during the borings, the drill rate observed would be consistent with that expected for marble or soft limestone.

### Site Hydrogeology

At the time that groundwater samples were obtained on August 2, 1995, the water levels in the wells ranged from 14.8 feet to 15.6 feet below the ground surface. The available data indicates the general direction of groundwater movement to be to the

southwest. This direction also agrees with general trend of the bedrock surface. A site showing the water table elevations as of the date of sampling is included as Appendix E.

### **Potential Receptors**

The 1967 Dorset, VT and the 1968 Manchester, VT USGS quadrangles show in excess of 100 structures within a one-half mile radius of the site. Data on file with the Vermont Agency of Natural Resources, Water Supply Division indicates 31 bedrock wells within one-half mile of the site. Discussions with personnel at the Dorset Fire District No. 1 indicate that all residences in the immediate vicinity of Rogers Corporation are on the municipal system. The nearest public water supply is approximately 6,500 feet to the west and topographically higher. Based on the observed direction of groundwater flow, the nearest potential surface water receptors are a pond and wetlands in excess of 1,000 feet to the west. Rogers Corporation has a slab on grade foundation. The house across Route 30 to the southwest (in the downgradient direction) has a basement. A listing of the wells in the Water Supply Division database will be found in Appendix F.

### **Soil Sampling**

As noted above soil samples for possible analytical work were obtained from various depths during the boring program. Based on conversations with Lynda Provencher of the HMMD, several of the samples were chosen for laboratory analysis. The samples analyzed were: MW-1 2' - 4', and MW-1 14' - 15'. These were chosen as representative samples from near the ground surface and from the top of the water table. The refrigerated samples were sent to Eastern Analytical, Inc. of Concord, New Hampshire on July 27, 1995 via overnight service. The samples were analyzed for VOC's by EPA Method 8260. No compounds above detection limits for the method used were found in either sample. A copy of the laboratory analytical report is included as Appendix G.

## Monitoring Well Sampling

The three Dufresne-Henry monitoring wells and the shallow well at the Rumney house across Route 30 from the machine shop were sampled on August 2, 1995 following the standard protocols which accompanied our work plan. The sampling was performed by Dufresne-Henry personnel. Three well volumes were purged prior to drawing a sample. No free product was observed in any well. The refrigerated samples were sent to Eastern Analytical, Inc. of Concord, New Hampshire on August 2, 1995 via overnight service. The samples were analyzed for VOC's by EPA Method 8260. A summary of the VOC analytical results is presented in the table below, and are indicated on the site sketch in Appendix C.

### Summary of Analytical Results

#### Volatile Organic Compounds

Compound	ES µg/L	MW-1 µg/L	MW-2 µg/L	MW-3 µg/L	Water Well µg/L
1,1-Dichloroethane		16	<2	<2	2
1,1-Dichloroethene	7	5	<2	<2	<2
1,1,1-Trichloroethane	200	400	<2	110	150

ES State of Vermont Enforcement Standard

Detectable concentrations of chlorinated solvents were found at all sampling points with the exception of MW-2. The 1,1,1-Trichloroethane concentration in MW-1 exceeds the Vermont Enforcement Standard. The concentration of 1,1-Dichloroethene in the same well is very near the Enforcement Standard. A copy of the laboratory analytical report is included as Appendix H.

## Summary and Recommendations

In summary, three (3) shallow groundwater monitoring wells were installed on the site and adjacent property. Those wells and a shallow well at the Rumney residence were sampled and analyzed for VOC's by EPA Method 8260. The analysis found several chlorinated compounds at all sampling points with the exception of MW-2. In MW-1, the well nearest the floor drain, the concentration of 1,1,1-Trichloroethane was above the Vermont Enforcement Standard. Two soil samples from MW-1 revealed no compounds above detection limits when analyzed by EPA Method 8260. An upgradient well was not installed due to dry conditions over probable bedrock.

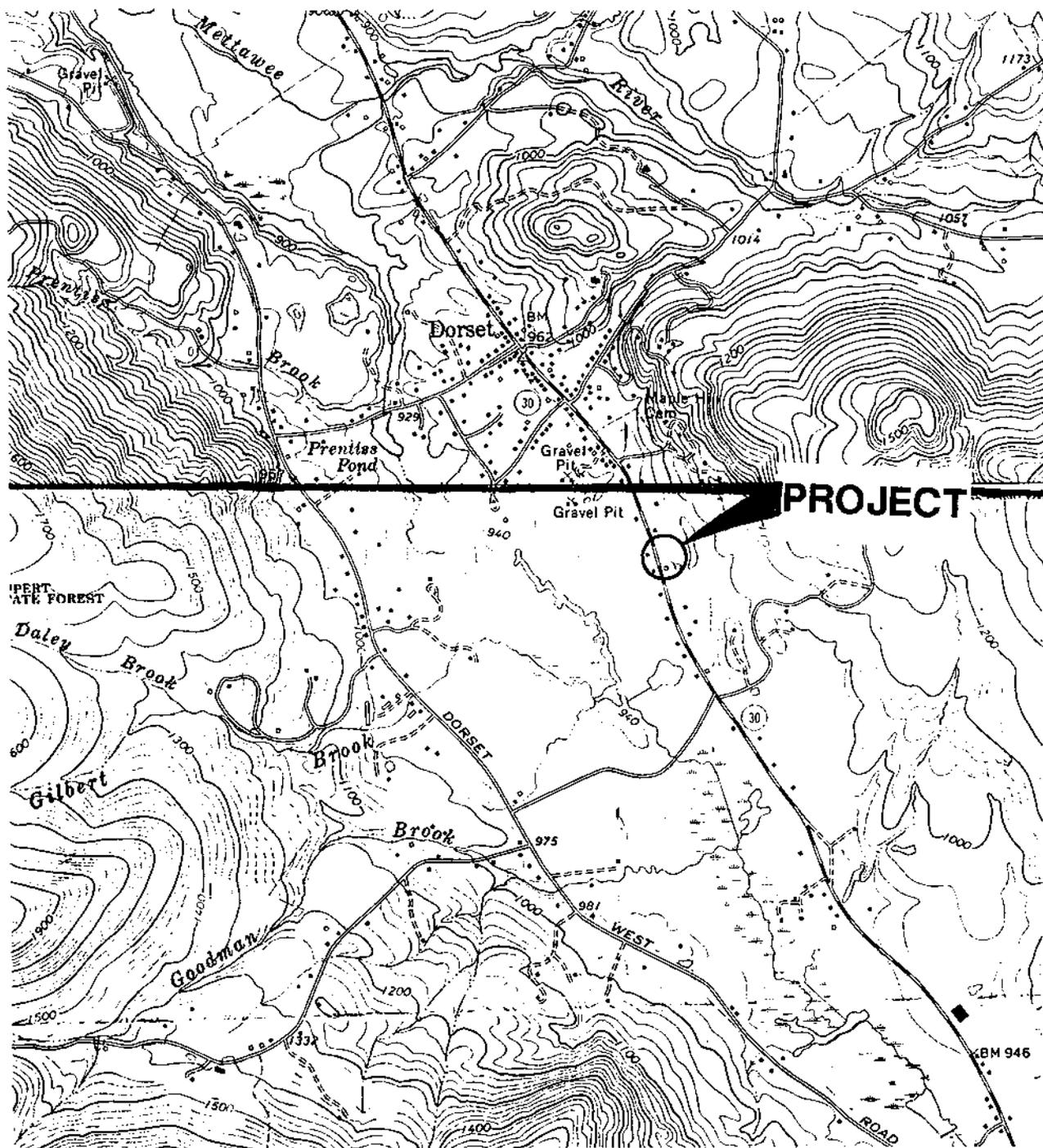
Results from the boring program and the water quality sampling indicate that the plume has migrated in a southwesterly direction at least as far as the well in the Rumney residence. The limits north of that point are reasonably well defined. The limits to the south of the machine shop and further to the southwest are not known.

All properties in the immediate vicinity of the site are on the municipal water supply system. Information from the Water Supply Division database indicates 31 bedrock wells within a half-mile radius of the site. It is possible that several of these properties are now on the municipal system. The nearest public water supply is approximately 6,500 feet to the west and topographically higher. The nearest surface water in the downgradient direction is a pond and wetlands in excess of 1,000 feet to the west.

Based on these findings we recommend the following:

1. The monitoring wells and the shallow well be sampled biannually and analyzed for VOC's by EPA Method 8260. If the concentration of TCA or any other compound in the shallow well exceeds the Vermont Enforcement Standard, additional monitoring wells should be installed and analyzed to determine the extent of the plume. The need for remedial action will be re-evaluated at that time.

**APPENDIX A**  
**SITE LOCATION MAP**



**SCALE**  
1:24,000

TAKEN FROM USGS QUAD. SHEETS FOR MANCHESTER, AND DORSET, VT  
AERIAL PHOTOGRAPHY OBTAINED IN 1965

**DH**  
Dunham-Henry, Inc.  
Precision Park  
No. Springfield,  
Vermont 05150  
A DMI Company  
Tel. 18021886-2261 Fax 18021886-2260

SITE LOCATION PLAN  
PREPARED FOR  
**ROGERS CORPORATION**

Project No. 415033  
Proj. Mgr. F.D.D.  
Date AUG. '95

**DORSET,**

**VERMONT**

**B**

**APPENDIX B**

**SITE INVESTIGATION REQUEST, WORK PLAN,  
SITE HEALTH AND SAFETY PLAN**

RCRA COMPLAINT FOLLOW-UP REPORT

RECEIVED  
MAY - 5 1995

I. GENERAL INFORMATION:

File: C-02-03-001  
Company: Rogers Corporation  
Address: Route 30 (next to the fire station)  
Rt 1, Box 63, Dorset 05251  
Telephone: (802) 867-5949

FRESNE-HENRY INC

Company Official(s) Interviewed: Roger Rumney (RR), Owner  
EPA/State Official(s)  
Conducting the Inspection: Sherri Kasten (SMK), Hazardous Materials  
Management Division (HMMD)  
Tim Cropley (TC), HMMD  
Type of Inspection: Complaint Follow-up (HMM94-122)  
Date of Inspection: August 18, 1994

II. RCRA REPORTING/INFORMATION REQUIREMENTS:

Facility EPA ID Number: N/A (non-notifier)  
Type of Operation: metal working  
Source Classification: Conditionally Exempt Small Quantity  
Generator (CESQG) (< 100 Kg/month)

III. INSPECTION SCHEDULE:

SMK and TC arrived and met with RR at ~1310 hours; I (SMK) explained that we were on-site in response to a complaint regarding disposal of waste tetrachloroethane down a floor drain and a possible illegal septic system (Attachment 1). We discussed the general processes on-site. We then were shown the floor drain and waste solvent storage area; TC collected a sample of the material (soil/sludge) underneath the floor drain opening for volatile organic compound (VOC) analysis (EPA test method 8240). I told RR that Rogers Corporation must notify as a hazardous waste handler; he completed a Notification of Regulated Waste Activity form during our visit (Attachment 2) and asked that I send him a copy for his records. I gave RR the Vermont Exempt Small Quantity Generator Handbook. I filled out a multi-media checklist (Attachment 3). We left the facility at ~1400 hours.

#### IV. SOURCE DESCRIPTION/GENERAL OBSERVATIONS:

Rogers Corporation was established in Dorset in 1970 or 1971; RR said that one employee works on-site in addition to himself and his sons (there were four workers, counting RR, at the time of our visit). RR explained that metal parts are made and repaired on-site; RR said that steel and brass are mostly just cut to size, that there are no grinding oils or wastes. Castings are made by Franklin Non-ferrous Foundry in New Hampshire; steel bar stock is purchased from several vendors. Brass is recycled back to the manufacturer; steel scrap is given to scrap yards for recycling. I asked about waste oils; RR said that all cutting oils are re-used in the process. He said that very little oil is spilled (he estimated less than one gallon/yr); I explained that wastes that contain >5% by weight of petroleum distillate are hazardous wastes. I recommended that he either use a rag service (rags are currently disposed of in the regular trash) or re-use the absorbents over and over and handle them as hazardous waste.

I asked about the solvent(s) used on-site. RR showed us the drum of virgin solvent. The label indicated that the drum contained "Chloroethane SM Solvent . . . Inhibited 1,1,1-Trichloroethane" (TCA) and that it is manufactured by Dow Chemical; RR said that he has never used tetrachloroethane on-site. He showed us a  $\pm 7$ -gallon metal jug into which the parts to be degreased are dipped. This jug was labeled as containing TCA but not covered at the time of our visit; I suggested that RR cover it to keep volatilization to a minimum (he immediately covered the jug (using a cover that was near the jug) and said that it is usually covered when not in use).

RR then showed us the floor drain (the degreasing jug was located ~6 feet from the floor drain at the time of the visit). The drain was covered with a solid metal plate; completed parts (lengths of pipe with attached cast fittings) were piled on top of this covered drain at the time of our visit. RR said that he is "not personally aware" of anything having been dumped down the drain. He said that he uses the drain when snowy equipment is brought into the building (to keep water from flowing all over the shop).

TC moved the parts aside and pried the drain cover off the floor drain at ~1325 hours. He then checked for volatile organics with an Hnu photoionization device that had been calibrated with isobutylene calibration gas (58 parts per million, or ppm) upon our arrival at the facility that morning. The "background" meter reading was 1.8 ppm; the reading inside the floor drain opening was 6.8 ppm. The depth of the opening underneath the floor drain cover was ~2 feet. TC observed a small mound directly under the drain cover; the base of the floor drain sloped down slightly in all directions from the mound. He did not have a flashlight, so could not observe the direction that the floor drain routed material (i.e.: the location of the dry well relative to the drain opening).

TC began collecting a grab sample in a 40-milliliter vial at ~1330 hours, using a metal trowel for collection and a metal spatula to fill the vial. He wore latex gloves, work clothes,

steel-toe boots, and had no respiratory protection (i.e.: level "D" sampling). TC checked the soil/sludge brought up with the first scoop-full with the Hnu; this also registered 6.8 ppm. The sample material appeared to be primarily a fine material with small cobbles interspersed. TC only collected one vial-full because the bottom of the drain was very hard-packed and sample collection was difficult. Sample collection was complete and the drain was closed at ~1350 hours. The VOC sample vial was placed in a cooler on ice for the trip back to the HMMD office; the sampling equipment was decontaminated using methanol and water. The sample was placed in the HMMD store room refrigerator overnight (this room is always kept locked); TC logged the sample in at the DEC laboratory on August 19 (Attachment 4). Where applicable, DEC sampling protocol was followed.

While TC was collecting the sample, RR showed me the hazardous waste drum being used for the waste TCA. This drum had an uncovered funnel in the open bung hole; the drum was not identified as to its contents. I told RR that the drum should be covered when waste is not being added to it; I also recommended that the drum be identified as to its contents and as hazardous waste. RR immediately got a bung cover and capped the drum. He told me that he uses very little solvent in his operation and has not yet had to dispose of waste solvent. {NOTE: there is no record of any manifested shipments from Rogers Corp. since the HMMD began computerizing manifest records in 1988.}

RR told me that he guesses that the complaint was made by his wife (he said that they are in the process of getting a divorce). He said that if a former employee had made the complaint, the complainant would have known that Rogers Corporation uses TCA and not tetrachloroethane. He also told us that although it is possible that someone disposed of waste solvent down the floor drain, he said he neither directed anyone to do it nor knows anything about it having been done. TC and I thanked RR for his time and assistance and explained that the sample results should be final within a month. I said that the facility could expect to hear from the HMMD in writing in ~6-8 weeks.

After we completed the visit, TC and I walked around the Rogers Corporation building. It is located on a relatively flat parcel of land. There were empty 55-gallon drums piled against the building and several empty 5-gallon pails. I did not observe any containers that looked like they contained hazardous waste, nor did I observe a drain pipe coming out of the building or being "daylighted."

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NOTE: Before TC and I went out to investigate this complaint, we checked with the DEC Water Supply Division for nearby public and private wells (as possible groundwater sampling points). TC found no nearby private wells; see Attachment 5 for the only public water supply in Dorset.

I had also contacted Dave Swift of the VT DEC Pittsford regional office regarding the potentially illegal septic system. The facility is not hooked into a municipal sewer system.

Dave told me that any leachfield system installed  $\leq 1970$  is considered "pre-existing" and does not need a wastewater permit. Dave said that he is not familiar with the Rogers Corp facility in Dorset. I offered to send him a copy of my trip report; he said that he would appreciate that.

VI. ATTACHMENTS TO INSPECTION REPORT:

1. Department of Environmental Conservation. 1994. Complaint/Spill Report Complaint #HMM94-122. Person Taking Report: CRS (Cedric Sanborn). Date/Time: April 12, 10:35 a.m.
2. Rumney, Roger (owner). 1994. EPA Notification of Regulated Waste Activity. Name of Installation: Rogers Corp. August 18.
3. Vermont Multi-Media Inspection Checklist. 1994. Facility/Site: Rogers Corporation. Inspector: Sherri Kasten; Tim Cropley. August 18.
4. DEC laboratory log-in sheet RE: Rogers Corp. Complaint. 1994. Lab ID: 10964 (Rogers Corp floor drain) and 10964 (T.B. or trip blank). Submitted by: T. Cropley. Date Collected: August 18.
5. VT DEC Water Supply Files. No Date. Dorset Fire District #1, WSID #5020, 1 WHPA/APA, 8 spring(s).
6. Department of Environmental Conservation Laboratory. 1994. Lab ID N<sup>o</sup>s: 10964 and 10965. Rogers Corp Complaint. Reports dated September 14.

CC: Brian Kooiker / VT DEC, Wastewater Permits  
Elizabeth Hunsberger / VT DEC, UIC Program  
Dave Swift / VT DEC, Pittsford regional office  
Chuck Schwer / VT DEC HMMD, Sites Management Section



# State of Vermont

Department of Fish and Wildlife  
Department of Forests, Parks and Recreation  
Department of Environmental Conservation  
State Geologist  
Natural Resources Conservation Council  
RELAY SERVICE FOR THE HEARING IMPAIRED  
1-800-253-0191 TDD>Voice  
1-800-253-0195 Voice>TDD

Mr. Roger Rumney  
Rogers Corporation  
Route 30, Rt 1, Box 63  
Dorset, Vermont 05251

AGENCY OF NATURAL RESOURCES  
Department of Environmental Conservation

Management and Prevention Section  
Hazardous Materials Management Division  
103 South Main Street/West Office Building  
Waterbury, Vermont 05671-0404  
(802) 241-3888

FAX: (802) 241-3296  
October 5, 1994

## CERTIFIED MAIL

RE: Notice of Alleged Violation  
Generator ID N<sup>o</sup> C-02-03-001

Dear Mr. Rumney:

On August 18, 1994, two representatives of the Vermont Agency of Natural Resources, Hazardous Materials Management Division (HMMD), conducted an inspection at Rogers Corporation in Dorset, Vermont, in response to a complaint regarding the alleged disposal of waste tetrachloroethane down a floor drain and a possible illegal septic system. At that time, you informed the HMMD personnel that tetrachloroethane is not and has not been used in on-site operations; rather, that 1,1,1-trichloroethane is used for degreasing on-site. A sample of the material (soil/sludge) underneath the floor drain opening was collected for volatile organic compound analysis at the Department of Environmental Conservation Laboratory.

You are hereby put on notice that the Agency of Natural Resources believes that Rogers Corporation was in violation of the following Vermont statute:

- 10 V.S.A. Section 6616: Release of hazardous materials into the surface or groundwater, or onto the land of the state is prohibited.

**ALLEGED VIOLATION:** Laboratory analytical results indicated the presence of 2,980,000 parts per billion (or 2,980 parts per million) of 1,1,1-trichloroethane (TCA) in the sample from the on-site floor drain (see enclosed laboratory report).

Section 7-105(1) of the Vermont Hazardous Waste Management Regulations (VHWMR) requires that "In the event of a discharge of hazardous waste, the person in control of such waste shall:

- (a) Take all appropriate immediate actions to protect human health and the environment including, but not limited to, emergency containment measures and notification as described below; and

- (b) Take any further clean up actions as may be required and approved by federal, state, or local officials so that the discharge and related contaminated materials no longer present a hazard to human health or the environment."

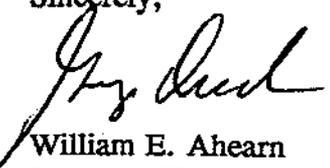
Additional work will need to be conducted to identify the extent of TCA contamination at Rogers Corp. and to assess potential impacts to human health and the environment. The HMMD requests that you hire a qualified consultant to perform the required work. Enclosed please find a list of consultants in Vermont who perform this type of investigation. Please have your consultant submit a preliminary work plan to Sherri Kasten of this office so that we may approve it before work begins at the site; the plan should be submitted within fifteen days of your receipt of this letter. Enclosed please find a copy of "Site Investigation Guidance," which your consultant should refer to in preparing the work plan.

The HMMD may proceed with further enforcement action in this matter. VHWMR Section 7-107(1) specifies that "... disposal of hazardous waste ... may serve as grounds for an enforcement action by the Secretary, including, but not limited to:

- (a) Issuance of an order to immediately cease and desist any operation or practice;
- (b) Issuance of an order to correct or prevent environmental damage likely to result from any deficiency in operation or practice;
- (c) Issuance of an order suspending or revoking any certification and requiring temporary or permanent cessation of the operation of such facility;
- (d) A request that the Attorney General or appropriate State's Attorney commence an action for injunctive relief, the imposition of penalties and fines provided in 10 V.S.A. Section 6612 and/or 3 V.S.A. Section 2822, or other relief as may be appropriate."

If you have any questions concerning this Notice of Alleged Violation, please contact Peter Marshall, Chief, Management and Prevention Section, at 241-3888.

Sincerely,

  
William E. Ahearn  
Director, Hazardous Materials Management Division

Enclosures

CC: Elizabeth Hunsberger, DEC UIC Program  
Jay Rutherford, DEC Enforcement Division  
Chuck Schwer, DEC Sites Management Section

**ATTACHMENT A**  
**SCOPE OF SERVICES**

**LIMITED SITE INVESTIGATION**  
**ROGERS CORPORATION**  
**DORSET, VERMONT**

Dufresne-Henry, Inc. will perform a limited site investigation to document the existence and extent of subsurface 1,1,1-trichloroethane contamination at the Rogers Corporation facility in Dorset, Vermont. The investigation will consist of the following specific tasks:

1. Prepare site Health and Safety Plan (HASP).
2. Install three (3) groundwater monitoring well at appropriate locations to further define the degree and extent of soil and/or groundwater contamination. Wells will be installed in borings created with hollow stem augers, with split spoon samples taken at five (5) foot intervals or as directed by the Dufresne-Henry field inspector. During installation, soil samples will be screened using a Photovac Microtip PID with a 10.6 eV lamp. Wells will be of two-inch flush joint PVC, and extend five feet below the prevailing water table. Each well will be provided with a flush mount road box. In the event that monitoring well depth exceeds 20 feet, an adjustment in cost may be necessary.
3. Determine relative elevations of the monitoring wells and existing dug well to verify the direction of groundwater flow.
4. Obtain one (1) round of groundwater samples from the three (3) groundwater monitoring wells and the existing dug well, and analyze for halocarbons by EPA Method 601/8010.
5. Perform a receptor assessment for properties in the area with particular attention to basements of adjacent buildings and water supply wells. There reportedly are no known water supply wells in the immediate vicinity. If such supplies are found, and sampling is deemed necessary, sampling and analysis may be at additional cost.
6. Prepare a summary report including all results of the site investigation, and conclusions and recommendations regarding the need for long term treatment and/or monitoring.



State of Vermont

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
RELAY SERVICE FOR THE HEARING IMPAIRED
1-800-253-0191 TDD>Voice
1-800-253-0195 Voice>TDD

JUN 16 1995

UFRESNE-HENRY INC

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
Hazardous Materials Management Division
103 South Main Street/West Office
Waterbury, Vermont 05671-0404
(802) 241-3888
FAX (802) 241-3296

June 14, 1995

F. David Deane
Dufresne-Henry, Inc.
Precision Park
North Springfield, VT 05150-0029

RE: Rogers Corporation in Dorset (Site #95-1796)

Dear Mr. Deane:

The Sites Management Section (SMS) has received Dufresne-Henry's (D-Hs) "Scope of Services, Limited Site Investigation" dated May 23, 1995 for the above referenced site. The SMS is concerned with potential 1,1,1-trichloroethane (1,1,1-TCA) contamination at the site, which may be in the form of a Dense Non-Aqueous Phase Liquid (DNAPL). Therefore, any investigation of this site, must take into account the possibility of the presence of DNAPL.

Based on the information the SMS has gained regarding the site, and the potential for the presence of DNAPL, the SMS concurs with D-H's recommendations to perform an investigation of the site, providing the following is incorporated into the Scope of Services. To define the degree and extent of soil and groundwater contamination at this site, three to four monitoring wells should be installed at the site. Specifics of each well should be as follows:

- A soil boring shall be drilled directly downgradient of the potential source area (dry well) with the possibility installing a monitoring well. While drilling this soil boring, soil samples should be taken every two feet. Headspace readings shall be taken from each soil sample and every other sample saved for laboratory analysis. If during drilling very high headspace readings are encountered, drilling must be stopped immediately. This is important because the high headspace readings may indicate the presence of DNAPL. If DNAPL is drilled through, it may be re-mobilized and contaminate previously clean areas.

If while drilling the soil boring, high headspace readings (close to the PID maximum) are encountered above the water table, a soil sample should be taken for laboratory analysis and drilling should be stopped. The hole should then be grouted with an impermeable material.

If no extremely high headspace readings are encountered above the water table, then drilling can continue below the water table. Continue to take soil samples every two feet for headspace and save every other soil sample for laboratory analysis. As with drilling in the unsaturated

Definite analysis or choice?

zone, if high headspace readings are encountered, stop drilling, take a soil sample for laboratory analysis, and a well shall be screened within this area. The well screen should not be longer than five feet.

If no high headspace readings are encountered, continue drilling until either refusal (if not deeper than 40 or 50 feet) or until signs of contamination are apparent. If contamination is found and a well is installed, the well screen should be set in the contaminated area. If no PID readings above background are present in any soil samples below the water table to refusal, the well should be screened at ten feet below the water table. If refusal is encountered prior to the water table, a soil sample should be taken from this depth for laboratory analysis.

- Two wells shall be installed downgradient of the source area. One well shall be drilled between 30 and 40 feet downgradient of the source area (dry well). The location of the second of these two wells shall be determined on site, based on the location to the first two wells drilled. These wells will help determine the extent of the contamination and the water table configuration. These shall be drilled in a similar fashion as the well located directly down gradient of the dry well. Soil headspace readings must be taken every two feet. If extremely high headspace readings are encountered, drilling should be stopped and a soil sample should be taken for laboratory analysis. The well screen should be set in the potentially contaminated zone. As with the source area well, the screen should be no longer than five feet. If the soil samples do not show extremely high headspace readings, set the well screen at a depth similar to the depth of the well screen for the source area well.

If contamination was found in the first well directly downgradient of the source area, and drilling was not continued to refusal, then the well located between 30 and 40 feet downgradient of the source area should be drilled either to refusal or until contamination is found which is suspected DNAPL contamination, in which case the above procedures should be followed and a well installed.

- A background well must also be drilled upgradient of the source area. Split spoon samples may be taken at five foot intervals, and the well screen should be set at the approximate depth of the downgradient wells. As this well will be drilled last, and in an assumed clean area, it is imperative that all decontamination procedures be properly followed to avoid contaminating a clean area.

All groundwater and soil samples should be analyzed by EPA Method 8240 or 8260. The SMS concurs with the other components of D-Hs Scope of Services, which include obtaining a round of groundwater samples, determining the direction of groundwater flow, performing a receptor assessment, and preparing a summary report which includes the results of the site investigation with conclusions and recommendations for the site. The need for additional investigations at the site will be based on the results of this initial investigation.

If liquid 1,1,1-TCA was disposed of onsite, and if the 1,1,1-TCA is present in high enough

concentrations, it may be in the form of a DNAPL. As DNAPLs are heavier than water they have the potential to sink below the water table. Also, 1,1,1-TCA is non-wetting with respect to the aquifer materials below the water table, and once below the water table, it may be present as residual phase DNAPL held in the pore spaces of the aquifer, and possibly in pools located on top of lower permeability bedding layers. DNAPL held in the subsurface can then serve as a long-term source of aqueous phase groundwater contamination. If a subsurface investigation is conducted improperly, DNAPL can be remobilized, contaminating previously clean areas of the aquifer.

Please notify the SMS of when the above work is scheduled to occur. Feel free to call if you have any questions.

Sincerely,



Lynda Provencher, Site Manager  
Sites Management Section

c: Roger Rumney, Rogers Corporation  
Salvatore P. Spinosa, Environmental Enforcement Division  
Sherri Kasten, Management and Prevention Section

[lp/sites/951796/sosapp](mailto:lp/sites/951796/sosapp)

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PROJECT: ROGERS CORPORATION LIMITED SITE INVESTIGATION  
JOB NO.: 415033

HEALTH AND SAFETY PLAN  
FOR  
LIMITED SITE INVESTIGATION  
ROGERS CORPORATION  
DORSET, VERMONT

This Health and Safety Plan applies only to Dufresne-Henry, Inc. employees.

PROPOSED ON-SITE ACTIVITIES:

Installation of four (4) shallow groundwater monitoring wells, soil and groundwater sampling, decontamination.

PROPOSED DATE(S) OF WORK: Borings: 7/21/95, 7/24/95  
Sampling: week of 7/23/95

ANTICIPATED WEATHER CONDITIONS: temperatures, 60's - 80's, possible rain, light wind.

PROPOSED SITE INVESTIGATION TEAM:

Personnel	Responsibilities
F. David Deane	Project Manager
Bruce Cox	Site Safety Officer
Bruce Cox/Oscar Garcia	Field Team Leader (Mon Wells/Water Sampling)
Roger Rumney	Site Representative
Lynda Provencher	ANR Representative

All Dufresne-Henry, Inc. personnel arriving or departing the Site should check in and out with the Site Safety Officer. All Dufresne-Henry activities on-Site must be cleared through the Field Team Leader or Project Manager.

PROJECT: ROGERS CORPORATION LIMITED SITE INVESTIGATION  
JOB NO.: 415033

### Background Information

Site Status:  Active  Inactive  Unknown

Site Description (Topography, on-site structures, vegetation, surrounding population, contaminated areas (if known)...Attach site plan)

Rogers Corporation is located on the east side of Vermont Route 30 in Dorset, Vermont. The site consists of a machine shop. The site has a private wastewater disposal system.

The area of known contamination is on the westerly side of the building. Migration across Route 30 is possible

Dig Safe was contacted on July 19, 1995. The site is OK'd after 8:30 am on July 21, 1995. The Dig Safe number is 952903684.

### Site History:

The history of the site is not completely known at this time. Information from the HMMD indicates the shop was started in 1970 or 1971. The shop primarily does cutting of steel and brass.

### Field Monitoring or Sampling Data From Previous Site work:

A Notice of Alleged Violation was issued by the State on October 5, 1994 for the alleged release of 1,1,1-Trichloroethane (TCA) into a dry well on the premises. TCA at a concentration of 2,980 ppm was found in a sample of the dry well sludge.

No other site investigation work is known to exist.

HAZARD REFERENCE

Waste Types:

Liquid     Solid (soil)     Sludge     Vapor     Unknown

Waste Characteristics:

Corrosive     Ignitable     Radioactive  
 Volatile     Toxic     Reactive  
 Unknown     Other     Persistent

Specific Substances of Greatest Concern (if known):

Hazard Evaluation:

Task: Mon. Well Install.     Low     Medium     High

Identification of Hazards: 1,1,1-Trichloroethane

-----

Task: Decontamination     Low     Medium     High

Identification of Hazards: 1,1,1-Trichloroethane

-----

Task: Sampling     Low     Medium     High

Identification of Hazards: 1,1,1-Trichloroethane

-----

Task:     Low     Medium     High

Identification of Hazards:

-----

Other Physical Hazards: (weather, heavy equipment, site structures...)

Drill rig, traffic, weather.

PROJECT: ROGERS CORPORATION LIMITED SITE INVESTIGATION  
JOB NO.: 415033

Hazard Assessment:

OVERALL HAZARD:     \_\_\_ Serious     \_\_\_ Moderate      X  Low  
                          \_\_\_ Unknown

On-Site Control

Site control is necessary to minimize potential exposure of workers to hazardous waste/materials, protect the public from the Site's chemical and physical hazards, and to facilitate work activity. The procedures to be followed involve the establishment of Site work zones, Site security, and safe work practices.

The on-Site staging area and support zone has been established at:

The parking lot for the machine shop.

The personal contamination reduction zone (decon area) has been established at:

The parking lot for the machine shop.

During the intrusive work, the exclusion area will be defined as follows:

The drill rig and a 15 foot radius around the borehole.

The decontamination of sampling and/or heavy equipment will be conducted:

The vicinity of the dry well.

These sub-regions of on-Site control have been established in order to reduce the potential cross contamination and proliferation of contamination by potentially contaminated equipment and personal protective equipment.

SITE ACTIVITIES

Required Personal Protective Equipment (PPE)

<u>Task</u>	<u>Entry Level of Protection</u>	<u>Monitoring Equipment</u>	<u>Upgrade/Downgrade Contingency</u>
Well Install.	D	HNU HW-101	Upgrade to Level C with PID readings over 10 ppm for 5 minutes in breathing space.
Decon.	D	"	"
Sampling	D	"	"

Note: Breathing space PID readings of 50 ppm will result in shutting down the job and consulting with State officials and the client.

PROJECT: ROGERS CORPORATION LIMITED SITE INVESTIGATION  
JOB NO.: 415033

Specific protective equipment for each level of protection is as follows:

Level C: Full Face Respirator w/appropriate cartridge (Willson T45)  
Chemically Resistant Suit (Tyvek®)  
Outer Rubber Slush Boots  
Outer Chemically Resistant Gloves  
Surgical Gloves  
Hard Hat  
Steel Toe/Shank Work Boots

Modified Level D: Chemically Resistant Suit (Tyvek®)  
Outer Rubber Slush Boots  
Outer Chemically Resistant Gloves  
Surgical Gloves  
Hard Hat  
Steel Toe/Shank Work Boots  
Safety Glasses or Face Shield

Level D: Work Clothes  
Steel Toe/Shank Work Boots  
Surgical Gloves  
Hard Hat

Rationale for change in level of protection:

Upgrade to Level C with PID readings of 10 ppm or more for 5 minutes in the breathing space. PID readings over 50 ppm in the breathing space will result in shutting down the job and consulting with State officials and the client.

NO CHANGES TO THE SPECIFIED LEVELS OF PROTECTION SHALL BE MADE WITHOUT THE APPROVAL OF THE SITE SAFETY OFFICER OR PROJECT MANAGER.

#### Monitoring Procedures

Site Monitoring Equipment:

HNU HW-101, 11.7eV probe)  
 Explosimeter  
 Draeger Tube & Pump  
 O<sub>2</sub> Meter  
 Other: H<sub>2</sub>S meter

Methods and Frequency of Monitoring:

Air space and soil samples: HNU HW-101  
Frequency: Soil samples; as obtained.  
Air; not to exceed every 15 minutes.

Decontamination and Disposal

Personnel Decontamination Procedure:

- X Level C: Slush boot and glove wash, slush boot and glove rinse, tape removal, outer glove removal, (cartridge change), slush boot removal, suit removal, inner glove removal.
  
- X Modified Level D: Slush boot and glove wash, slush boot and glove rinse, slush boot removal, suit removal, glove removal.

Equipment Decontamination:

The drill rig and tools will be decontaminated by steam cleaning prior to the start of work and between borings. The use of clean augers (not previously used on the job) will be permitted with washing of the bit in ALCONOX. All decontamination will be done on-site. Routine washing of split spoon samplers, etc will use water obtained at the site with disposal on-site.

Disposal Procedure for Investigation-Derived Materials:  
(decon waste, disposables)

All decon waste and disposables will remain on-site.

SITE OPERATING PROCEDURES/SAFETY GUIDELINES

- \*\* Always observe the buddy system. Never enter or exit site alone, and never work alone in an isolated area. Never wander off by yourself.
- \*\* Always maintain a line-of-sight.
- \*\* Practice contamination avoidance. Never sit down or kneel, never lay equipment on the ground, avoid obvious sources of contamination such as puddles, and avoid unnecessary contact with on-site objects
- \*\* No eating, drinking, or smoking outside the designated "clean" zone.
- \*\* In the event PPE is ripped or torn, work shall stop and PPE shall be removed and replaced as soon as possible.
- \*\* Be alert to any unusual changes in your own condition; never ignore warning signs. Notify Health and Safety Coordinator as to suspected exposures or accidents.
- \*\* A vehicle will be readily available exclusively for emergency use. All personnel going on-site shall be familiar with the most direct route to the nearest hospital.
- \*\* In the event of direct skin contact, the affected area shall be washed immediately with soap and water.
- \*\* Copies of the Health and Safety Plan shall be readily accessible at the command post.
- \*\* Note wind direction. Personnel shall remain upwind whenever possible during on-site activities.
- \*\* Never climb over or under refuse or obstacles. Use safety harness/safety lines when sampling lagoons, stream beds, and ravines with steep banks.
- \*\* Hands and face must be thoroughly washed before eating, drinking, etc.
- \*\* Any modifications to this safety plan MUST be approved by the Site Safety Officer.

Special Procedures:  
Confined Space Entry

No attempt will be made to enter abandoned buildings, manholes, tanks, or any other confined areas.

Other:

Personnel Monitoring: (If applicable: Heat stress, frostbite, air sampling of individual breathing zone)

Monitoring of individual breathing space will be monitored by an HNU HW-101, as outlined in monitoring procedures. Monitoring of weather related hazards will be dictated by existing conditions.

#### EMERGENCY SITUATIONS

The following standard emergency procedures will be used by Dufresne-Henry on-site personnel. The Site Safety Officer (SSO) shall be notified of any on-site emergencies and be responsible for ensuring that the appropriate procedures are followed.

#### Personnel Injury to Dufresne-Henry Employees in the Exclusion Zone

Upon notification of an injury to a Dufresne-Henry employee in the exclusion zone, a rescue team will enter the zone (if required) to remove the injured person to the hotline. The SSO and Project Manager should evaluate the nature of the injury, and the affected person should be decontaminated to the extent possible prior to movement to the support zone. The SSO shall arrange for appropriate first aid, and contact should be made for an ambulance and with the designated medical facility (if required). No Dufresne-Henry personnel shall re-enter the exclusion zone until the cause of the injury or symptoms are determined.

#### Personnel Injury to Dufresne-Henry Employees in the Support Zone

Upon notification of an injury to a Dufresne-Henry employee in the support zone, the Project Manager and SSO will assess the nature of the injury. If the cause of the injury or loss of the injured person does not affect the performance of site personnel, operations may continue, with the on-site Field Team Leader initiating the appropriate first aid and necessary follow-up as stated above. If the injury increases the risk to others, all Dufresne-Henry personnel shall move to the decon line for further instructions. Dufresne-Henry activities on-site will cease until the added risk is removed or minimized.

### Fire/Explosion

Upon notification of a fire or explosion on-site, all Dufresne-Henry personnel will assemble at the decon line. The fire department shall be alerted and all Dufresne-Henry personnel moved to a safe distance from the involved area.

### Personal Protective Equipment Failure

If any Dufresne-Henry site personnel experience a failure or alteration of protective equipment that effects the protection factor, that person and his/her buddy shall immediately leave the exclusion zone. Re-entry shall not be permitted until the equipment has been repaired or replaced.

### Other Equipment Failure

If any other equipment on-site fails to operate properly, the Project Manager and SSO shall be notified and then determine the effect of this failure on continuing operations on-site. If the failure affects the safety of on-site Dufresne-Henry personnel or prevents the completion of the tasks, all Dufresne-Henry personnel shall leave the exclusion zone until the situation is evaluated and appropriate actions taken.

In all situations, when an on-site emergency results in evacuation of the exclusion zone, Dufresne-Henry personnel shall not re-enter until:

1. The conditions resulting in the emergency have been corrected.
2. The hazards have been reassessed.
3. The Site Safety Plan has been reviewed.
4. Dufresne-Henry personnel have been briefed on any changes in the Site Safety Plan.

PROJECT: ROGERS CORPORATION LIMITED SITE INVESTIGATION  
JOB NO.: 415033

EMERGENCY INFORMATION

AMBULANCE: Dorset Phone: 9-1-1  
HOSPITAL: Southern Vermont Medical Ctr Phone: (802) 447 - 5007  
Hospital Drive  
Bennington, VT  
(see attached map)  
POLICE: Dorset Phone: 9-1-1  
FIRE DEPARTMENT: Dorset Phone: 9-1-1  
POISON CENTER: Burlington Phone: (802) 658 - 3456  
ANR INCIDENT RESPONSE: Office Phone: (802) 241 - 3888

CORPORATE:

Dufresne-Henry N. Springfield, VT Phone: (802) 886-2261

Project Manager: F. David Deane

NEAREST PHONE: Rogers Corporation

LOCATION OF ON-SITE FIRST AID KIT: Boring contractor's vehicle.

EMERGENCY VEHICLE: The designated emergency vehicle on-site shall be that of the Dufresne-Henry, Inc. representative.

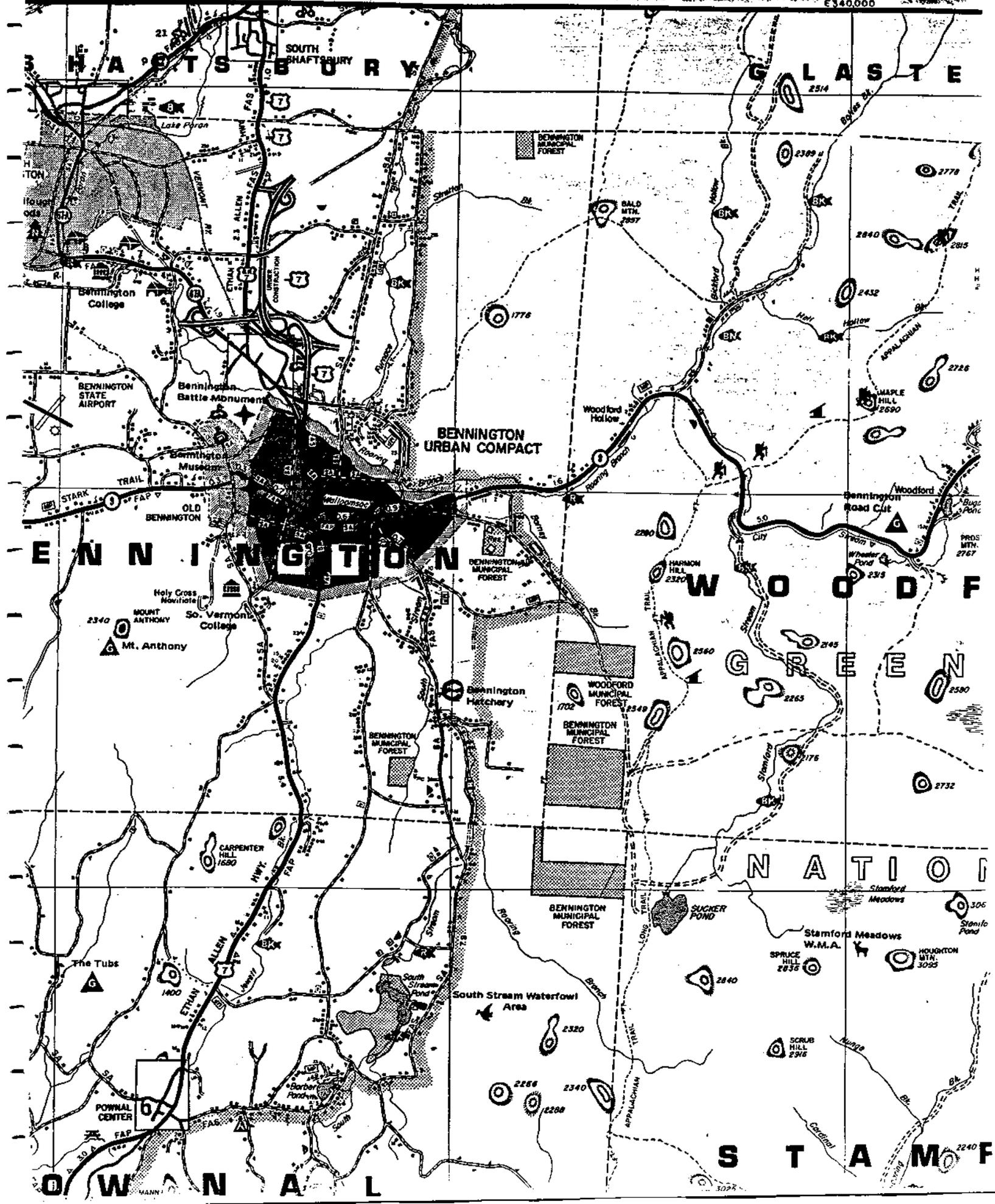


FROM SITE  
RTE 30 S. TO RTE 11 E.  
TO NEW RTE 7 SOUTH

E300,000

Continue on Map 5

E340,000





**APPENDIX C**

**SITE PLAN**



GRAVEL

H.N. WILLIAMS  
GENERAL STORE

MANCHESTER

DRIVEWAY

<2
<2
150

RUMNEY

OVERGROWN DRIVE

TB-4

SCRUBBY GRASS  
& GRAVEL

TB-4A

TRAILER

MACHINE  
SHOP

MW-1

16
5
400

VERMONT ROUTE 30

MW-3

<2
<2
110

FIELD

METAL  
STORAGE

GRAVEL

MW-2

<2
<2
<2

DRIVEWAY

DORSET VILLAGE

1,1 DICHLOROETHANE ug/l
1,1 DICHLOROETHENE ug/l
1,1,1 TRICHLOROETHANE ug/l

FIRE STATION

NOT TO SCALE

**DH**  
Dufresne-Henry, Inc.  
A DH Company  
Precision Park  
No. Springfield,  
Vermont 05450  
Tel. (802)886-2261 Fax. (802)886-2260

DORSET,

SITE PLAN  
FOR  
**ROGERS CORPORATION**

VERMONT

Project No. 415033

Proj. Mgr. F.D.D.

Date AUG. '95

B

**APPENDIX D**

**BORING LOGS,  
MONITORING WELL INSTALLATION REPORT,  
PID READING GRAPHS**

BORING LOCATION MW-1 INCLINATION V BEARING DATE START/FINISH 7/21/95 / 7/21/95  
 CASING ID CORE SIZE TOTAL DEPTH 18.5 FT DRILLED BY: M & W SOILS ENGINEERING, INC. (M.D.)  
 GROUND EL (AD) 997.97 DEPTH TO WATER/DATE 14.83 FT/ 8/2/95 LOGGED BY: B. COX

ELEV AD FT	SAMPLE			SAMP OD IN	LENGTH		REMARKS ON ADVANCE OF BORING	SIZE/TYPE BIT USED TO ADVANCE BORING	SOIL AND ROCK DESCRIPTION
	DEPTH FT	TYPE AND NO.	B		REC IN	PENETRA- TION IN			
995.97	2	SS-1	3 8 14 9	2	12	24			0" - 6"± Medium - dark brown, silty, sandy ORGANIC SOIL. 6" - 2' Dark brown, medium dense, silty, gravelly SAND FILL. Very fine - medium grained, moderately well sorted sand. 20%+ non plastic fines. 20%± gravel 1/2" - occasional cobbles. Dry. No odor or staining. 8 ppm.
993.97	4	SS-2	7 7 10 10	2	16	24			Medium - dark brown, medium dense, silty, gravelly SAND FILL as above. Predominately very fine - medium grained sand. Dry. No odor or staining. 7 ppm.
991.97	6	SS-3	7 6 4 3	2	6	24			Medium - dark brown, loose - medium dense, silty, gravelly SAND FILL as above. Increased gravel content. Dry. No odor or staining. 5.2 ppm.
989.97	8		3 2 1 1	2	3	24			Probable silty, gravelly, SAND FILL similar to above but looser.
987.97	10	SS-4	3 2 2 1	2	13	24			Medium brown (top) and medium gray (bottom), very loose, silty, gravelly SAND similar to above but with a coarser sand fraction and less gravel. Slightly moist. No odor or staining. 3.3 ppm.
985.97	12	SS-5	4 4 10 22	2	14	24			Medium - dark brown, medium dense - dense, silty sandy GRAVEL. Very fine - occasionally coarse grained, moderately poorly sorted sand. 20%± non plastic fines. 60%+ gravel from 1/2" - boulders. Dry. No odor or staining. 2.6 ppm.
983.97	14	SS-6	16 14 12 25	2	13	24			GRAVEL similar to above but with 80%± stone. Dry. No odor or staining. 4.4 ppm.
982.82	15.25	SS-7	59 54 87*	2	13	15	* 87/3"		Silty, sandy, GRAVEL similar to above but with less stone. Saturated bottom 1"±. No odor or staining. 4.2 ppm.
981.97	16						4 1/4" HSA	8"/CCH	Probable silty, sandy, GRAVEL similar to above.
980.47	17.5	SS-8	23 46 82	2	13	18			Silty, sandy, GRAVEL similar to above. Till-like. Saturated. No odor or staining. 6.5 ppm.
979.47	18.5						4 1/4" HSA	8"/CCH	Possible bedrock at 18'±.
									Refusal on HSA at 18'6" on possible bedrock.

B - Penetration resistance, Blows/6" of a 140 lb hammer falling 30 in to drive a split spoon sampler. REC - Length of sample recovered. SS - Split spoon sample. U - Undisturbed samples S - Shelby tube N - Denison F - Fixed piston P - Pitcher O - Osterberg SAMP OD - Outside diameter of sampling spoon	NOTES HSA = Hollow Stem Auger CCH = Conical Cutter Head ppm Refers to PID reading (11.7 eV lamp) Top of PVC elev = 997.66	ROGERS CORPORATION LIMITED SITE INVESTIGATION	
		DORSET, VERMONT DATE: 7/21/95 PROJECT: 415033	PAGE 1 OF 2 LOG OF BORING: MW-1

BORING LOCATION MW-1      INCLINATION V      BEARING      DATE START/FINISH 7/21/95 / 7/21/95  
 CASING ID      CORE SIZE      TOTAL DEPTH 18.5 FT      DRILLED BY: M & W SOILS ENGINEERING, INC. (M.D.)  
 GROUND EL (AD) 997.97      DEPTH TO WATER/DATE 14.83 FT/ 8/2/95      LOGGED BY: B. COX

ELEV AD  FT	SAMPLE			SAMP OD  IN	LENGTH		REMARKS ON ADVANCE OF BORING	SIZE/TYPE BIT USED TO ADVANCE BORING	SOIL AND ROCK DESCRIPTION
	DEPTH FT	TYPE AND NO.	B		REC IN	PENETRA- TION IN			
									Set 5' of 2: dia, .020" slot, threaded, flush joint, Schd 40 PVC at 18'. Sand backfill to 12' Bentonite seal 11' - 12' and 2' - 3'. Grouted in flush watertight aluminum monitoring well box.

B - Penetration resistance, Blows/6" of a 140 lb hammer falling 30 in to drive a split spoon sampler. REC - Length of sample recovered. SS - Split spoon sample. U - Undisturbed samples S - Shelby tube      N - Denison F - Fixed piston     P - Pitcher O - Osterberg SAMP OD - Outside diameter of sampling spoon	NOTES	ROGERS CORPORATION LIMITED SITE INVESTIGATION	
		DORSET,	VERMONT
		DATE: 7/21/95	PROJECT: 415033
		PAGE 2 OF 2	LOG OF BORING: MW-1

BORING LOCATION MW-2 INCLINATION V BEARING DATE START/FINISH 7/24/95 / 7/24/95  
 CASING ID CORE SIZE TOTAL DEPTH 23.5 FT DRILLED BY: M & W SOILS ENGINEERING, INC. (M.D.)  
 GROUND EL (AD) 998.56 DEPTH TO WATER/DATE 14.97 FT/ 8/2/95 LOGGED BY: S. COX

ELEV AD FT	SAMPLE			SAMP OD IN	LENGTH		REMARKS ON ADVANCE OF BORING	SIZE/TYPE BIT USED TO ADVANCE BORING	SOIL AND ROCK DESCRIPTION
	DEPTH FT	TYPE AND NO.	8		REC IN	PENETRATION IN			
996.56	2	SS-1	3 6 9 12	2	11	24			0' - 1'± Dark brown, silty, sandy, ORGANIC SOIL. 1' - 2' Medium brown, loose - medium dense, silty gravelly, SAND. Predominately very fine - fine grained, well sorted sand. 20% - 30% non plastic fines. 20%± gravel 1/2" - occasional cobbles. Dry. No odor or staining. 0.2 ppm.
994.56	4	SS-2	11 9 8 9	2	11	24			Medium - dark brown, medium dense, silty, gravelly SAND similar to above. Dry - slightly moist. No odor or staining. 1.2 ppm.
992.56	6	SS-3	5 4 4 3	2	11	24			Medium - dark brown, loose - medium dense, silty, gravelly SAND similar to above but with a coarser sand fraction. Dry - slightly moist. No odor or staining. 1.1 ppm.
990.56	8	SS-4	4 7 3 1	2	5	24			Dark brown, loose, silty, gravelly, SAND similar to above but with a coarser gravel fraction. Dry - slightly moist. No odor or staining. 1.0 ppm.
988.56	10	SS-5	8 7 8 3	2	10	24			Dark brown, medium dense, silty, gravelly, SAND similar to above but with slightly more gravel. Wet bottom 1"±. No odor or staining. 1.0 ppm.
986.56	12	SS-6	7 7 7 18	2	10	24			Dark brown, medium dense - dense, silty, gravelly SAND similar to above. Dry - slightly moist. Faint unknown odor, no staining. 1.1 ppm.
984.64	13.92	SS-7	74 19 32 66*	2	23	23		* 66/5"	Medium gray brown, very dense, stony TILL. Very fine - coarse grained, poorly sorted sand. 20% non plastic fines. 40%+ gravel to cobbles. Dry. No odor or staining. 0.8 ppm.
									Refusal on SSA at 14'6". Moved 6' south. SSA to 15'6".
981.56	17	SS-8	46 121 72	2	18	18			Medium brown gray, very dense TILL similar to above. Dry. No odor or staining. 2.8 ppm.
978.56	20						4 1/4" HSA	8"/CCH	Probable TILL as above becoming silty at 19'6"±.
976.56	22	SS-9	18 32 34 40	2	20	24			Medium brown gray, very dense, SILT. 80%+ non plastic, inorganic fines. Trace very fine sand, occasional small (< 1/2") dropstones. Moist - wet No odor or staining. 4.0 ppm.
		SS-10	77 94	2	18	24			22' - 22'6"± SILT as above. Wet - saturated. 22'6" - 22'6" Medium gray, very dense, TILL sim-

B - Penetration resistance, Blows/6" of a 140 lb hammer falling 30 in to drive a split spoon sampler.  
 REC - Length of sample recovered.  
 SS - Split spoon sample.  
 U - Undisturbed samples  
 S - Shelby tube N - Denison  
 F - Fixed piston P - Pitcher  
 O - Osterberg  
 SAMP OD - Outside diameter of sampling spoon

NOTES  
 SSA = Solid Stem Auger  
 HSA = Hollow Stem Auger  
 CCH = Conical Cutter Head  
 ppm Refers to PID reading (11.7 eV lamp)  
 Top of PVC elev = 988.35

ROGERS CORPORATION  
 LIMITED SITE INVESTIGATION  
 DORSET, VERMONT  
 DATE: 7/24/95 PROJECT: 415033  
 PAGE 1 OF 2 LOG OF BORING: MW-2

BORING LOCATION MW-2 INCLINATION V BEARING DATE START/FINISH 7/24/95 / 7/24/95  
 CASING ID CORE SIZE TOTAL DEPTH 23.5 FT DRILLED BY: N & W SOILS ENGINEERING, INC. (M.D.)  
 GROUND EL (AD) 998.56 DEPTH TO WATER/DATE 14.97 FT/ 8/2/95 LOGGED BY: B. COX

ELEV AD  FT	SAMPLE			SAMP OD  IN	LENGTH		REMARKS ON ADVANCE OF BORING	SIZE/TYPE BIT USED TO ADVANCE BORING	SOIL AND ROCK DESCRIPTION
	DEPTH FT	TYPE AND NO.	B		REC IN	PENETRA- TION IN			
975.06	23.5		118						ilar to above. Dry. No odor or staining. 2.8 ppm.
									No refusal to depth.  Set 5' of 2" dia, .020" slot, threaded, flush joint, Schd 40 PVC at 23'. Sand backfill to 16'6". Bentonite seal 15' - 16'6". Grouted in flush watertight aluminum monitoring well box.

<p>B - Penetration resistance, Blows/6" of a 140 lb hammer falling 30 in to drive a split spoon sampler.          REC - Length of sample recovered.          SS - Split spoon sample.          U - Undisturbed samples            S - Shelby tube           N - Denison            F - Fixed piston        P - Pitcher            O - Osterberg          SAMP OD - Outside diameter of sampling spoon</p>	<p>NOTES           ppm Refers to PID reading (11.7 eV lamp)           Top of PVC elev = 998.35</p>	<p>ROGERS CORPORATION          LIMITED SITE INVESTIGATION</p>	
		<p>DORSET, VERMONT          DATE: 7/24/95      PROJECT: 415033</p>	<p>PAGE 2 OF 2      LOG OF BORING: MW-2</p>



BORING LOCATION MW-3 INCLINATION V BEARING DATE START/FINISH 7/24/95 / 7/25/95  
 CASING ID CORE SIZE TOTAL DEPTH 30 FT DRILLED BY: M & W SOILS ENGINEERING, INC. (M.D.)  
 GROUND EL (AD) 997.80 DEPTH TO WATER/DATE 15.59 FT/ 8/2/95 LOGGED BY: B. COX

ELEV AD FT	SAMPLE			SAMP OD IN	LENGTH		REMARKS ON ADVANCE OF BORING	SIZE/TYPE BIT USED TO ADVANCE BORING	SOIL AND ROCK DESCRIPTION
	DEPTH FT	TYPE AND NO.	B		REC IN	PENETRATION IN			
973.80	24	SS-10	37 68 76	2	18	18			Medium gray brown, very dense, TILL similar to above. Wet - saturated. No odor or staining. 1.4 ppm.
971.80	26	SS-11	60 42 48 48	2	24	24			Medium gray, very dense, TILL similar to above but very gravelly at the bottom. Saturated. No odor or staining. 4.0 ppm.
970.05	27.75	SS-12	28 45 76 66*	2	21	21	* 66/3"		Medium gray brown, very dense, TILL similar to above but siltier. Saturated. No odor or staining. 1.8 ppm.
967.80	30						4 1/4" HSA	7/25/95 8"/CCH	Possible bedrock at 27'9". Auger slowly and steadily to 30'.
									Refusal at 30' on possible bedrock.  Set 5' of 2" dia, .020" slot (with sock), threaded, flush joint, Schd 40 PVC at 27'6". Sand backfill to 21.7'. Bentonite seal 19.8' - 21.7'. Grouted in flush watertight aluminum monitoring well box.

B - Penetration resistance, Blows/6" of a 140 lb hammer falling 30 in to drive a split spoon sampler. REC - Length of sample recovered. SS - Split spoon sample. U - Undisturbed samples S - Shelby tube N - Denison F - Fixed piston P - Pitcher O - Osterberg SAMP OD - Outside diameter of sampling spoon	NOTES  HSA = Hollow Stem Auger CCH = Conical Cutter Head ppm Refers to PID reading (11.7 eV lamp)  Top of PVC elev = 997.41	ROGERS CORPORATION LIMITED SITE INVESTIGATION	
		DORSET, VERMONT DATE: 7/25/95 PROJECT: 415033	PAGE 2 OF 2 LOG OF BORING: MW-3

BORING LOCATION TB-4/4A INCLINATION V BEARING DATE START/FINISH 7/25/95 / 7/25/95  
 CASING ID CORE SIZE TOTAL DEPTH FT DRILLED BY: M & W SOILS ENGINEERING, INC. (M.D.)  
 GROUND EL (AD) DEPTH TO WATER/DATE FT/ LOGGED BY: B. COX

ELEV AD FT	SAMPLE			SAMP OD IN	LENGTH		REMARKS ON ADVANCE OF BORING	SIZE/TYPE BIT USED TO ADVANCE BORING	SOIL AND ROCK DESCRIPTION
	DEPTH FT	TYPE AND NO.	B		REC IN	PENETRA- TION IN			
992.88	5						4" SSA	4 1/2"/FB	Probable silty, cobbley, TILL.
992.13	5.75	SS-1	67 43*	2	9	9	* 43/3"		Medium gray brown, very dense, silty, cobbley TILL Predominately very fine - occasionally medium grained, moderately well sorted sand. 30%+ non plastic fines. 30%+ gravel 3/8" - cobbles. Dry. No odor or staining. 0 ppm.
987.38	10.5						4" SSA	4 1/2"/FB	Probable TILL similar to above.
987.13	10.75	SS-2	53*	2	2	3	* 53/3" (bouncing)		Medium gray, very dense, TILL similar to above but with a coarser sand fraction. Dry - slightly moist. No odor or staining. 2 ppm.
986.88	11						4" SSA	4 1/2"/FB	Probable TILL similar to above.
984.38	13.5						4" SSA	4 1/2"/FB	Probable bedrock. Auger slowly to 13'6"±. Seamy.
									Refusal on SSA at 13'6" on probable bedrock. No water encountered, no well installed.
993.48	5						4" SSA	4 1/2"/FB	TB-4A Probable silty, cobbley, TILL.
993.23	5.25	SS-1	37*	2	3	3	* 37/3" (bouncing)		Medium gray brown, very dense, silty, cobbley TILL Very fine - medium grained, moderately well sorted sand. 30%+ non plastic fines. 30%± gravel 3/8" - cobbles. Dry. No odor or staining. 0 ppm.
987.48	11						4" SSA	4 1/2"/FB	Probable TILL similar to above.
984.48	14						4" SSA	4 1/2"/FB	Probable bedrock. Auger slowly to 14'.
									Refusal on SSA at 14' on probable bedrock. No water encountered, no well installed.

B - Penetration resistance, Blows/6" of a 140 lb hammer falling 30 in to drive a split spoon sampler. REC - Length of sample recovered. SS - Split spoon sample. U - Undisturbed samples S - Shelby tube N - Denison F - Fixed piston P - Pitcher O - Osterberg SAMP OD - Outside diameter of sampling spoon	NOTES SSA = Solid Stem Auger FB = Finger Bit ppm Refers to PID reading (11.7 eV lamp)	ROGERS CORPORATION LIMITED SITE INVESTIGATION	
		DORSET, VERMONT DATE: 7/25/95 PROJECT: 415033	PAGE 1 OF 1 LOG OF BORING: TB-4

M & W Soils Engineering, Inc.  
Main St. Charlestown, NH 03603

SHEET 1 OF 1  
DATE 7/21/95  
HOLE NO. MW-1  
LINE & STA.  
OFFSET

TO DUFRESNE-HENRY ENGINEERING ADDRESS NORTH SPRINGFIELD, VT  
PROJ. NAME ROGER'S CORP. LOCATION DORSET, VT  
REPORT SENT TO BRUCE COX PROJ. NO.  
SAMPLE SENT TO RETAINED BY DUFRESNE-HENRY OUR JOB NO. 6436-95

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	SURFACE ELEV.
AT 14'6"	AT IMMEDIATELY	Type	HSA	SS	DATE STARTED 7/21/95
	HOURS	Size I. D.	4 1/4"	1 1/2"	DATE COMPL. 7/21/95
		Hammer Wt.		140#	BORING FORMAN M.D. & M.H.
		Hammer Fall		30"	INSPECTOR
					SOILS ENGR.

LOCATION OF BORING SIDE OF BUILDING

Depth	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM-TO	TYPE OF SAMPLE	Blows per 6" on sampler			MOISTURE DENSITY OF CONSTANT	STRATA CHANGE ELEV.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, cond., hardness, Drilling time, seams and ect.	SAMPLE		
				From 0-6	6-12	To 12-18				NO.	PEN	REC
5'		0' - 2'	SS	3	8		LOOSE	6"	DARK BROWN LOAMY SILT	1	24"	12"
		2' - 4'	SS	7	7		MED. DENSE	10'	BROWN GRAVELLY SILTY FINE SANDS WITH TRACE OF COBBLES (FILL)	2	24"	18"
				10	10					3	24"	5"
		4' - 6'	SS	7	6					4	24"	7"
		6' - 8'	SS	3	2					5	24"	12"
			1	1								
10'		8' - 10'	SS	3	2		VERY DENSE	18'6"	BROWN COARSE SANDY GRAVELS WITH COBBLES AND BOULDERS	6	24"	10"
		10' - 12'	SS	4	4					7	24"	13"
				10	22							
15'		12' - 14'	SS	16	14				REFUSAL - BEDROCK OR BOULDER	8	15'	13'
		14' - 15'3"	SS	59	54					9	18"	12"
				87/3"								
20'		16' - 17'6"	SS	23	46							
				82								

GROUND SURFACE TO 18'6"

USED HSA CASING THEN

Sample Type  
D-Dry C-Cored W-Washed  
UP-Unfinished Piston  
TP-Test Pit A-Auger V-Vane Test  
UT-Un-disturbed Thinwall

Proportions Used  
trace 0 to 10%  
little 10 to 20%  
some 20 to 35%  
and 35 to 50%

140 lb. wt. x 30"-fall an 2" O.D. Sampler  
Cohesionless Density  
0-10 Loose  
10-30 Med. Dense  
30-50 Dense  
50+ Very Dense  
Cohesive Consistency  
0-4 Soft 30 + Hard  
4-8 M/Stiff  
8-15 stiff  
15-30 V-Stiff

summary  
EARTH BORING 18'6"  
ROCK CORING  
SAMPLES 9  
HOLE NO. MW-1

**M & W Soils Engineering, Inc.**  
Main St. Charlestown, NH 03603

TO DUFRESNE-HENRY ENGINEERING ADDRESS NORTH SPRINGFIELD, VT  
PROJECT NAME ROGERS CORP. LOCATION DORSET, VT  
REPORT SENT TO BRUCE COX PROJ. NO. \_\_\_\_\_  
SAMPLE SENT TO RETAINED BY DUFRESNE-HENRY OUR JOB NO. 6436-95

SHEET 1 OF 1  
DATE 7/24/95  
HOLE NO. MW-2  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	SURFACE ELEV.
AT <u>15'4"</u>	AT <u>3+/-</u> HOURS	Type <u>HSA</u>	<u>SS</u>		DATE STARTED <u>7/24/95</u>
		Size I. D. <u>4 1/4"</u>	<u>1 1/2"</u>		DATE COMPL. <u>7/24/95</u>
		Hammer Wt. _____	<u>140#</u>	BIT	BORING FORMAN <u>M.D. &amp; M.H.</u>
AT _____	AT _____ HOURS	Hammer Fall _____	<u>30"</u>		INSPECTOR _____
					SOILS ENGR. _____

LOCATION OF BORING ACROSS ROAD FROM SHOP

Depth	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM-TO	TYPE OF SAMPLE	Blows per 6" on sampler			MOISTURE DENSITY OF CONSTANT	STRATA CHANGE ELEV.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, cond., hardness, Drilling time, seams and ect	SAMPLE		
				From 0-6	6-12	To 12-18				NO.	PEN	REC
8'		0' - 2'	SS	3	6			4'	SOD - LOAM	1	24"	9"
				9	12					2	24"	11"
		2' - 4'	SS	11	9					3	24"	11"
				8	9					4	24"	5"
		4' - 6'	SS	5	4		LOOSE TO MED. DENSE		BROWN GRAVELLY SILTY FINE SANDS	5	24"	10"
10'				4	3					6	24"	10"
		6' - 8'	SS	4	7					7	23"	23"
				3	1					8	18"	18"
		8' - 10'	SS	8	7				SAME MATERIAL	9	24"	24"
				8	3							
15'		10' - 12'	SS	7	7			14'6"	REFUAL ON AUGERS			
				7	18							
		12' - 13'11"	SS	70	21							
20'				33	66/5'							
		15'6" - 17'	SS	46	121				*****MOVED 6' SOUTH*****			
				72								
							VERY DENSE WET		BROWN SANDY FINE TO COARSE GRAVELS WITH COBBLES AND BOULDERS			
		20' - 22'	SS	18	32					9	24"	24"
25'				34	40			23'				
									TOP OF WELL AT 18'			
									BOTTOM OF WELL AT 23'			
									MATERIALS USED:			
									5' OF 2" PVC 0.020" SLOT SCREEN			
									17' OF 2" PVC RISER			
									150# OF SAND			
									25# OF BENTONITE CHIPS			
									40# OF CONCRETE MIX			
								1 2" SLIDE CAP				
								1 2" EXPANSION CAP				
								1 6" ALUMINUM MANHOLE COVER				

GROUND SURFACE TO 23'

USED HSA CASING THEN \_\_\_\_\_

Sample Type  
D-Dry C-Cored W-Washed  
UP-Unfinished Piston  
TP-Test Pit A-Auger V-Vane Test  
UT-Undisturbed Thinwall

Proportions Used  
trace 0 to 10%  
little 10 to 20%  
some 20 to 35%  
and 35 to 50%

140 lb. wt. x 30"-fall an 2" O.D. Sampler  
Cohesionless Density  
0-10 Loose  
10-30 Med. Dense  
30-50 Dense  
50+ Very Dense  
Cohesive Consistency  
0-4 Soft 30 + Hard  
4-8 M/Stiff  
8-15 Stiff  
15-30 V-Stiff

summary	
EARTH BORING	23'
ROCK CORING	
SAMPLES	9
HOLE NO.	MW-2

**M & W Soils Engineering, Inc.**  
Main St. Charlestown, NH 03603

SHEET 1 OF 1  
DATE 7/24/95  
HOLE NO. MW-3  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_

TO DUFRESNE-HENRY ENGINEERING ADDRESS NORTH SPRINGFIELD, VT  
PROJECT NAME ROGER'S CORP. LOCATION DORSET, VT  
REPORT SENT TO BRUCE COX PROJ. NO. \_\_\_\_\_  
SAMPLE SENT TO RETAINED BY DUFRESNE-HENRY OUR JOB NO. 6436-95

GROUND WATER OBSERVATIONS AT <u>15'+/-</u> AT <u>IMMEDIATELY</u> HOURS		Type _____	CASING <u>HSA</u>	SAMPLER <u>SS</u>	CORE BAR _____	SURFACE ELEV. _____
AT _____ AT _____ HOURS		Size I. D. <u>4 1/4"</u>	<u>4 1/4"</u>	<u>1 1/2"</u>	_____	DATE STARTED <u>7/24/95</u>
		Hammer Wt. _____	_____	<u>140#</u>	BIT _____	DATE COMPL. <u>7/25/95</u>
		Hammer Fall _____	_____	<u>30"</u>	_____	BORING FORMAN <u>M.D. &amp; M.H.</u>
						INSPECTOR _____
						SOILS ENGR. _____

LOCATION OF BORING ACROSS ROAD FROM SHOP - CLOSE TO WHITE HOUSE

Depth	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM-TO	TYPE OF SAMPLE	Blows per 6" on sampler			MOISTURE DENSITY OF CONSTANT	STRATA CHANGE ELEV.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, cond., hardness. Drilling time, seams and ect	SAMPLE		
				From 0-6	6-12	To 12-18				NO.	PEN	REC
5'		0' - 2'	SS	4	6			4"	TOPSOIL	1	24"	6"
				6	7							
		2' - 4'	SS	6	7					2	24"	12"
				10	6		MED. DENSE		DARK BROWN GRAVELLY FINE SANDS AND SILTS	3	24"	14"
		4' - 6'	SS	6	3							
10'		6' - 8'	SS	7	8			8"		4	24"	15"
				8	9							
		8' - 10'	SS	28	23					5	24"	22"
				28	23		VERY DENSE		BROWN SANDY FINE TO COARSE GRAVELS	6	24"	20"
		10' - 12'	SS	30	31					7	24"	6"
15'				36	61							
		13' - 15'	SS	27	31							
				56	58							
		16' - 17'6"	SS	34	52			17'+/-	SAME MATERIAL	8	18"	12"
				70								
20'		20' - 20'6"	SS	72/6"						9	6"	6"
		REFUSAL ON SAMPLER					VERY DENSE		BROWN GRAVELLY SILTS WITH COBBLES AND SMALL BOULDERS	10	18"	18"
		22'6" - 24'	SS	37	68							
				76								
		24' - 26'	SS	60	42					11	24"	18"
25'				48	48			25'				
		26' - 27'9"	SS	28	45					12	21"	21"
				76	66/3"		VERY DENSE	27'9"	BROWN SANDY GRAVELS WITH COBBLES AND BOULDERS			
30'								30'	ROCK - BEDROCK OR BOULDER			
									MATERIALS USED: 5' OF 2" PVC 0.020" SLOT SCREEN 22' OF 2" PVC RISER 5' OF FILTER SOCK 125# OF SAND 25# OF BENTONITE CHIPS 40# OF CONCRETE MIX 1 2" SLIDE CAP 1 2" EXPANSION CAP 1 6" ALUMINUM MANHOLE COVER			

GROUND SURFACE TO 30'

USED HSA CASING THEN \_\_\_\_\_

Sample Type  
D-Dry C-Cored W-Washed  
UP-Unfinished Piston  
TP-Test Pit A-Auger V-Vane Test  
UT-Undisturbed Thinwall

Proportions Used  
trace 0 to 10%  
little 10 to 20%  
some 20 to 35%  
and 35 to 50%

140 lb. wt. x 30"-fall an 2" O.D. Sampler  
Cohesionless Density  
0-10 Loose  
10-30 Med. Dense  
30-50 Dense  
50+ Very Dense

Cohesive Consistency  
0-4 Soft 30 + Hard  
4-8 M/Stiff  
8-15 Stiff  
15-30 V-Stiff

summary	
EARTH BORING	<u>30'</u>
ROCK CORING	_____
SAMPLES	<u>12</u>
HOLE NO.	<u>MW-3</u>

M & W Soils Engineering, Inc.  
Main St. Charlestown, NH 03603

SHEET 1 OF 1  
DATE 7/25/95  
HOLE NO. MW-4/4A  
LINE & STA.  
OFFSET

TO DUFRESNE-HENRY ENGINEERING ADDRESS NORTH SPRINGFIELD, VT  
PROJECT NAME ROGER'S CORP. LOCATION DORSET, VT  
REPORT SENT TO BRUCE COX PROJ. NO.  
SAMPLE SENT TO RETAINED BY DUFRESNE-HENRY OUR JOB NO. 8436-95

GROUND WATER OBSERVATIONS		Type Size I. D. Hammer Wt. Hammer Fall	CASING	SAMPLER	CORE BAR	SURFACE ELEV.
AT _____	AT _____ HOURS		HSA	SS		DATE STARTED 7/25/95
AT _____	AT _____ HOURS		4 1/4"	1 1/2"		DATE COMPL. 7/25/95
				140#	BIT	BORING FORMAN M.D. & M.H.
				30"		INSPECTOR
						SOILS ENGR.

LOCATION OF BORING BEHIND SHOP

Depth	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM-TO	TYPE OF SAMPLE	Blows per 6" on sampler			MOISTURE DENSITY OF CONSTANT	STRATA CHANGE ELEV.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, cond., hardness. Drilling time, seams and ect.	SAMPLE		
				From 0-6	6-12	To 12-18				NO.	PEN	REC
							MW-4:		NO TOPSOIL			
5'		5' - 5'9"	SS	67	43/3"		VERY DENSE		BROWN GRAVELLY SANDY SILTS WITH COBBLES AND BOULDERS (TILL)	1	9"	9"
10'		10' - 10'3"	SS	23/3"				11'	SAME MATERIAL	2	3'	3'
		REFUSAL ON SAMPLER						14'	ROCK - BEDROCK			
15'							MW-4A:		..... MOVED 26'5" NORTH REACHED REFUSAL AT 11'3"  (NO WELL INSTALLED)			

GROUND SURFACE TO 14'

USED HSA CASING THEN

Sample Type  
D-Dry C-Cored W-Washed  
UP-Unfinished Piston  
TP-Test Pit A-Auger V-Vane Test  
UT-Undisturbed Thinwall

Proportions Used  
trace 0 to 10%  
little 10 to 20%  
some 20 to 35%  
and 35 to 50%

140 lb. wt. x 30"-fall an 2" O.D. Sampler  
Cohesionless Density  
0-10 Loose  
10-30 Med. Dense  
30-50 Dense  
50+ Very Dense  
Cohesive Consistency  
0-4 Soft 30 + Hard  
4-8 M/Stiff  
8-15 Stiff  
15-30 V-Stiff

summary  
EARTH BORING 14'  
ROCK CORING  
SAMPLES 2  
HOLE NO. MW-4/4A

ROGERS CORPORATION  
LIMITED SITE INVESTIGATION  
DORSET, VERMONT

7/21/95

Dufresne-Henry, Inc. - Bruce Cox on site at 9:00 am±.

M & W Soils Engineering, Inc. - Myron Domingue, Mike Hitchcock on site at 10:00 am±.

Met with Roger Rumney to discuss the location of the floor drain, locations of the proposed wells, and general scope of the boring program.

The site had been marked out (Dig Safe #952903684)

The HNU was calibrated at 10:15 am±.

MW-1

Started boring at 10:15 am±. The rig and other equipment had been steam cleaned prior to arrival on site. All water used for cleaning split spoons and other tools was obtained from the H.N. Williams General Store. Drilled with 4 1/4" hollow stem augers taking continuous split spoon samples starting at the surface. All samples were screened for VOC's with an HNU HW-101 (11.7 eV lamp, calibrated with isobutylene). Representative soil samples from each split spoon were stored in clear glass jars and retained by Dufresne-Henry. Soil samples for possible laboratory analysis were taken from every other split spoon starting with the 2' - 4' sample. All laboratory samples were refrigerated while on site. Total depth of the boring was 18'6" with refusal on possible bedrock. The general geologic column is silty, gravelly, sand fill to 10', followed by silty, sand gravel to 18'. The water table was encountered at approximately 15'. PID readings ranged from 2.6 ppm to 8 ppm. No visual or olfactory evidence of contamination was observed in the samples or on the tools. Installed a 5' long, 2" diameter, .020" machine slotted, threaded, flush joint, Schedule 40 PVC well at 18'. All pipe came from factory sealed plastic bags. The annular space was backfilled with clean silica sand to 12'. Bentonite seals were installed from 11' - 12', and from 2' - 3'. A watertight aluminum monitoring well box was grouted in flush at the surface. A test boring was done approximately 20' south using 4" solid stem augers. No samples were taken. Refusal was at 13'6".

Materials: 5' of 2", .020" slot, threaded, flush joint, SCHD 40 PVC.  
12'10" of 2", solid wall, threaded, flush joint, SCHD 40 PVC.  
200 lb± of silica sand.  
50 lb± of bentonite chips.  
80 lb± of concrete mix.  
1 2" push-on PVC cap.  
1 2" expanding gasket cap.  
1 6" aluminum monitoring well box.

Visitors: Roger Rumney.

Weather: Overcast, rain late am and pm, 80's, light wind.

7/24/95

Dufresne-Henry, Inc. - Bruce Cox on site at 7:55 am.

M & W Soils Engineering, Inc. - Myron Domingue, Mike Hitchcock on site at 8:05 am.

The HNU was calibrated at 8:15 am.

#### MW-2

Started boring at 8:20 am. All water used for cleaning split spoons and other tools was obtained from the H.N. Williams General Store. Drilled with 4 1/4" hollow stem augers taking continuous split spoon samples starting at the surface. All samples were screened for VOC's with an HNU HW-101 (11.7 eV lamp, calibrated with isobutylene). Representative soil samples from each split spoon were stored in clear glass jars and retained by Dufresne-Henry. Soil samples for possible laboratory analysis were taken from every other split spoon starting with the 2' - 4' sample. All laboratory samples were refrigerated while on site. Total depth of the boring was 23'6" with no refusal. The general geologic column is silty, gravelly, sand to 12', followed by stony till to 19'6", then silt to 23'6". The water table was encountered at approximately 15'. PID readings ranged from 0.2 ppm to 4 ppm. No visual or olfactory evidence of contamination was observed in the samples or on the tools, with the exception of a faint, unknown odor in the 10' - 12' sample. Because the 22' - 23'6" sample was saturated the upper 6" and dry the bottom 12", the boring was not advanced further. Installed a 5' long, 2" diameter, .020" machine slotted, threaded, flush joint, Schedule 40 PVC well at 23'. All pipe came from factory sealed plastic bags. The annular space was backfilled with clean silica sand to 16'6". A bentonite seal was installed from 15' - 16'6". A watertight aluminum monitoring well box was grouted in flush at the surface.

Materials: 5' of 2", .020" slot, threaded, flush joint, SCHD 40 PVC.  
17'10" of 2", solid wall, threaded, flush joint, SCHD 40 PVC.  
150 lb± of silica sand.  
25 lb± of bentonite chips.  
40 lb± of concrete mix.  
1 2" push-on PVC cap.  
1 2" expanding gasket cap.  
1 6" aluminum monitoring well box.

#### MW-3

Started boring at 1:45 pm. All water used for cleaning split spoons and other tools was obtained from the H.N. Williams General Store. Drilled with 4 1/4" hollow stem augers taking continuous split spoon samples starting at the surface. All samples were screened for VOC's with an HNU HW-101 (11.7 eV lamp, calibrated with isobutylene). Representative soil samples from each split spoon were stored in clear glass jars and retained by Dufresne-Henry. Soil samples for possible laboratory analysis were taken from every other split spoon starting with the 2' - 4' sample. All laboratory samples were refrigerated while on site. Total depth of the boring (as of the end of the day) was 27'9". The general geologic

column is silty, gravelly, sand to 8'6", followed by coarse gravel to 16', then till to 27'9". The water table was encountered at approximately 16'. PID readings ranged from 0.2 ppm to 4 ppm. No visual or olfactory evidence of contamination was observed in the samples or on the tools.

Visitors: Roger Rumney.  
Weather: Sunny, 80's, light wind.  
Off site: 5:09 pm.

7/25/95

Dufresne-Henry, Inc. - Bruce Cox on site at 7:51 am.  
M & W Soils Engineering, Inc. - Myron Domingue, Mike Hitchcock on site at 8:24 am.  
The HNU was calibrated at 8:30 am.

MW-3 continued

Refusal on split spoon at 27'9". Possible bedrock. Augered slowly to 30' with the solid stem auger. Installed a 5' long, 2" diameter, .020" machine slotted (with filter sock), threaded, flush joint, Schedule 40 PVC well at 27'6". All pipe came from factory sealed plastic bags. The annular space was backfilled with clean silica sand to 21.7'. A bentonite seal was installed from 19.8' - 21.7'. A watertight aluminum monitoring well box was grouted in flush at the surface.

Materials: 5' of 2", .010" slot, threaded, flush joint, SCHD 40 PVC.  
22'4" of 2", solid wall, threaded, flush joint, SCHD 40 PVC.  
5' of filter sock.  
125 lb± of silica sand.  
25 lb± of bentonite chips.  
40 lb± of concrete mix.  
1 2" push-on PVC cap.  
1 2" expanding gasket cap.  
1 6" aluminum monitoring well box.

TB-4/4A

Started boring at 11:30 am. All water used for cleaning split spoons and other tools was obtained from the H.N. Williams General Store. Drilled with 4" solid stem augers taking split spoon samples starting at 5'. All samples were screened for VOC's with an HNU HW-101 (11.7 eV lamp, calibrated with isobutylene). Representative soil samples from each split spoon were stored in clear glass jars and retained by Dufresne-Henry. Total depth of the boring was 13'6" with refusal on probable bedrock. The general geologic column is silty, cobbly till from the surface to probable bedrock at 11'. The water table was not encountered. PID readings ranged from 0 ppm to 2 ppm. No visual or olfactory evidence of contamination was observed in the samples or on the tools. Because the water

table was not encountered, no well was installed.

Offset 26.5' to the north. Refusal was at 11.4' on probable bedrock. Augered slowly to 13.5' with solid stem augers. No well was installed.

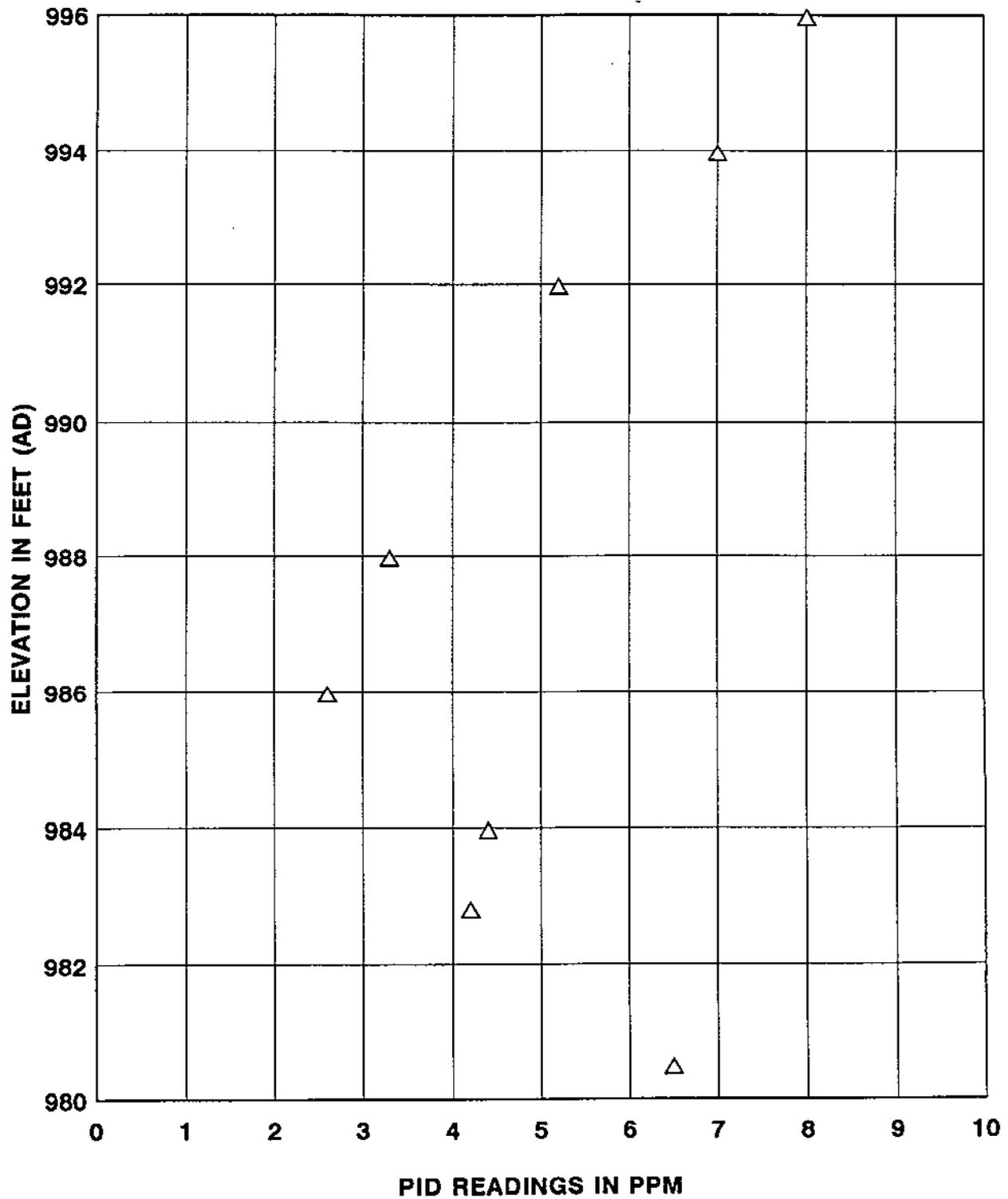
Visitors: Roger Rumney.

Weather: Sunny, 80's, light wind.

Off site: 1:52 pm±.

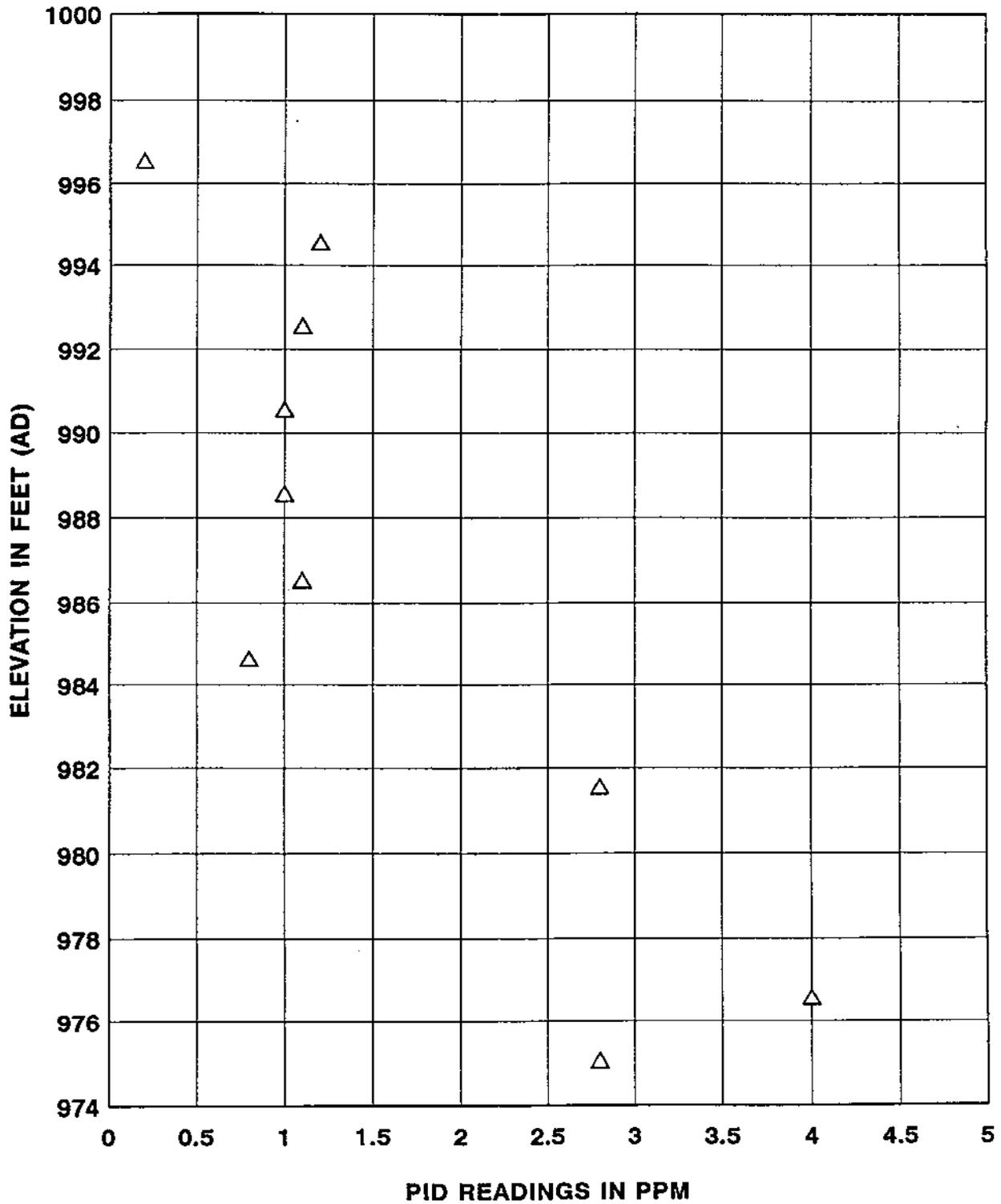
# ROGERS CORPORATION

## SOIL SAMPLE PID READINGS - MW-1



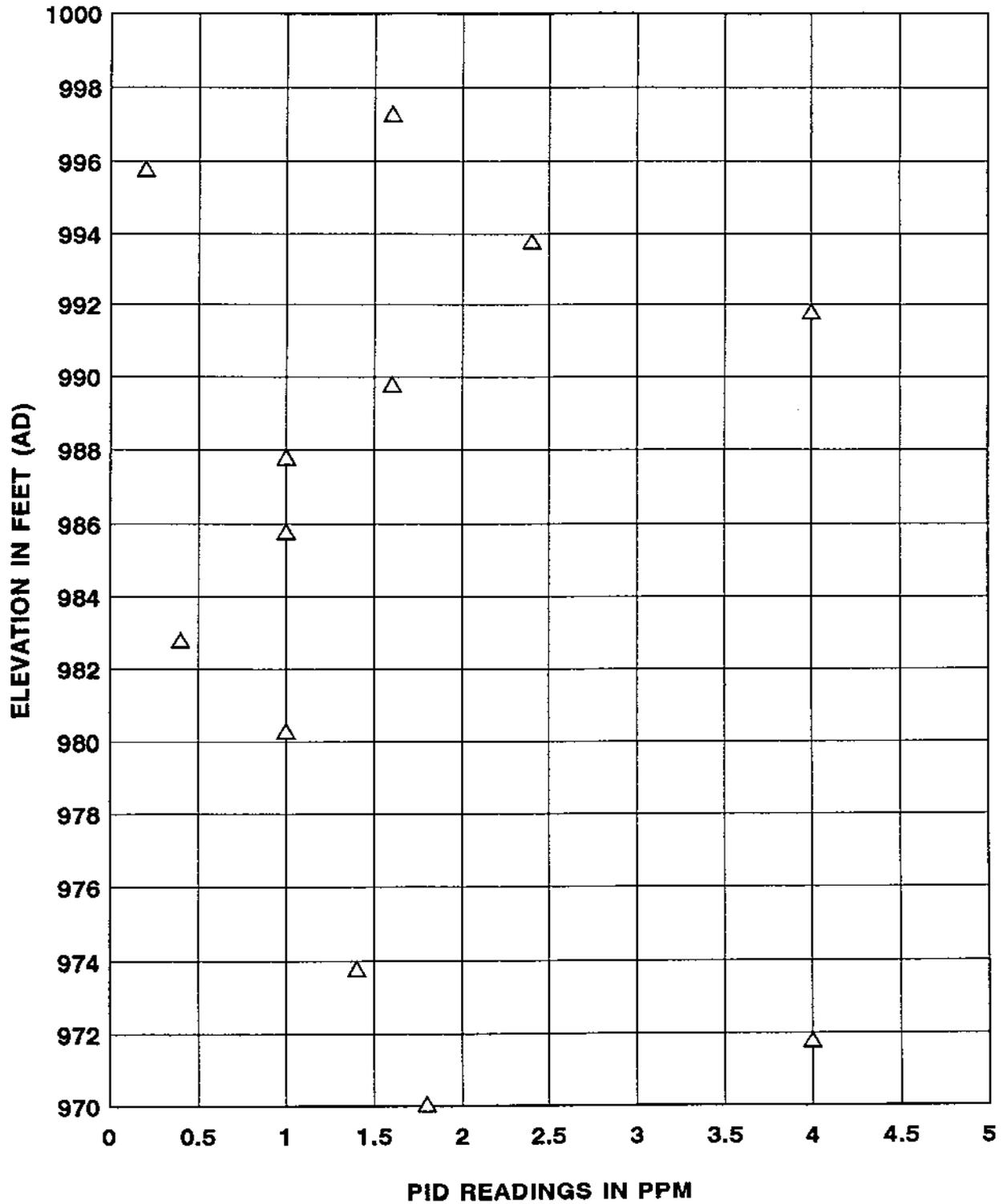
WATER TABLE AT ELEV 983.14 ON 8/2/95  
POSSIBLE BEDROCK AT ELEV 979.97

**ROGERS CORPORATION  
SOIL SAMPLE PID READINGS - MW-2**



**WATER TABLE AT ELEV 983.59 ON 8/2/95  
NO REFUSAL TO DEPTH**

**ROGERS CORPORATION  
SOIL SAMPLE PID READINGS - MW-3**



**WATER TABLE AT ELEV 982.21 ON 8/2/95  
POSSIBLE BEDROCK AT ELEV 970.05**

**APPENDIX E**

**GROUNDWATER ELEVATION MAP**



GRAVEL

H.N. WILLIAMS  
GENERAL STORE

MANCHESTER

DRIVEWAY

RUMNEY

OVERGROWN DRIVE

TB-4

SCRUBBY GRASS  
& GRAVEL

TB-4A

TRAILER

MACHINE  
SHOP

MW-1

983.16

VERMONT ROUTE 30

MW-3

982.21

FIELD

METAL  
STORAGE

GRAVEL

MW-2

983.60

DRIVEWAY

DORSET VILLAGE

FIRE STATION

NOT TO SCALE



Precision Park  
No. Springfield,  
Vermont 05150

A DVI Company  
Tel. (802)886-2261 Fax (802)886-2260

GROUNDWATER ELEVATION PLAN  
AS OF 8/02/95 FOR

ROGERS CORPORATION

DORSET,

VERMONT

Project No. 415033

Proj. Mgr. F.D.D.

Date AUG. '95

B

**APPENDIX F**  
**LIST OF POTENTIAL RECEPTORS**

RECEPTOR STUDY  
WELLS WITHIN ONE-HALF MILE OF SITE

Well ID #	Owner	Well Depth (ft)	Over-Burden (ft)	Casing Length (ft)
1	Arthur Groves	50	2	10
25	Joseph Mackey	501	30	75
57	Claude Burke	165	37	37
119	Myrick View Assoc.	130	100	120
136	Bryon Scribner	185	83	83
152	Steve Bruehl	100	23	41
153	Malcom Cooper, Jr.	125	125	30
156	Stevan Bruehl	150	21	42
164	John C. McMorrow	150	59	67
193	Claude Dern	103		103
206	Richard Webb	200	48	55
215	Charles O'Leary	263	35	37
216	Claude Dern	137		137
218	Claude Dern	183	136	138
247	Claude Dern	120		123
285	Anna Deeby	505	15	25
296	Edith Drislane	175	30	42
332	Cleat Enders	159	62	66
334	Dorset Builders	425	9	20
335	Dorset Builders	130	83	126
337	Ted Hopkins	150	85	89

349	Jack Hontz, Dick Bovey	700	80	120
380	Jim Hunt	90	79	82
383	Harry Brickell	200	41	60
481	Cleade Enders	205	25	37
485	John Ward	85	58	58
490	Tim Burns	125	7	20
504	Francis McBride	140	43	60
510	David Gardner	200	50	100
514	Chriss Trigg	125	8	36
532	Alan Hazelton	325	22	30

Notes:

1. Well ID # is that shown on the maps of the Vermont Agency of Natural Resources, Water Supply Division.
2. Owner is as recorded in the ANR WSD database and may not be current.

**APPENDIX G**

**CONTRACT LABORATORY ANALYTICAL REPORT - SOIL**



August 9, 1995

David Deane  
Dufresne-Henry  
Precision Park  
N. Springfield, VT 05150

Subject: Laboratory Report

Eastern Analytical, Inc. ID #: 3211 DUF  
Client Identification: 415033/Rogers Corp.  
Sample Quantity/Type: 2 soil  
Date Received: 7/28/95

Dear Mr. Deane:

Enclosed please find the laboratory report for the above identified project. All analyses were subjected to rigorous quality control measures to assure data accuracy.

The following standard abbreviations and conventions apply throughout all Eastern Analytical, Inc. reports:

- < = "less than" followed by the detection limit
- TNR = Testing Not Requested
- ND = None Detected, no established detection limit
- BRL = Below Reporting Limits

If you have any questions regarding the results contained within, please feel free to directly contact me, the department supervisor, or the analytical chemist who performed the testing in question.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

William Brunkhorst  
President



# LABORATORY REPORT

**Eastern Analytical, Inc. ID#: 3211 DUF**

Client: Dufresne-Henry

Client Designation: 415033/Rogers Corp.

## Volatile Organic Compounds

Sample ID:	MW-1/2-4MW-1/14-15		MW-1/2-4MW-1/14-15	
Matrix:	Soil	Soil	Soil	Soil
Date Received:	7/28/95	7/28/95	7/28/95	7/28/95
Units:	µg/kg	µg/kg	µg/kg	µg/kg
Date of Analysis:	8/4/95	8/4/95	8/4/95	8/4/95
Analyst:	JDS	JDS	JDS	JDS
EPA Method:	8260	8260	8260	8260
Benzene	< 10	< 10	Ethylbenzene	< 10
Bromobenzene	< 10	< 10	Hexachlorobutadiene	< 10
Bromochloromethane	< 10	< 10	Isopropylbenzene	< 10
Bromodichloromethane	< 10	< 10	p-Isopropyltoluene	< 10
Bromoform	< 10	< 10	Methylene chloride	< 10
Bromomethane	< 100	< 100	Naphthalene	< 10
n-Butylbenzene	< 10	< 10	n-Propylbenzene	< 10
sec-Butylbenzene	< 10	< 10	Styrene	< 10
tert-Butylbenzene	< 10	< 10	1,1,1,2-Tetrachloroethane	< 10
Carbon tetrachloride	< 10	< 10	1,1,2,2-Tetrachloroethane	< 10
Chlorobenzene	< 10	< 10	Tetrachloroethene	< 10
Chloroethane	< 100	< 100	Toluene	< 10
Chloroform	< 10	< 10	1,2,3-Trichlorobenzene	< 10
Chloromethane	< 100	< 100	1,2,4-Trichlorobenzene	< 10
2-Chlorotoluene	< 10	< 10	1,1,1-Trichloroethane	< 10
4-Chlorotoluene	< 10	< 10	1,1,2-Trichloroethane	< 10
Dibromochloromethane	< 10	< 10	Trichloroethene	< 10
1,2-Dibromo-3-chloropropane	< 10	< 10	Trichlorofluoromethane	< 100
1,2-Dibromoethane	< 10	< 10	1,2,3-Trichloropropane	< 10
Dibromomethane	< 10	< 10	1,2,4-Trimethylbenzene	< 10
1,2-Dichlorobenzene	< 10	< 10	1,3,5-Trimethylbenzene	< 10
1,3-Dichlorobenzene	< 10	< 10	Vinyl chloride	< 100
1,4-Dichlorobenzene	< 10	< 10	o-Xylene	< 10
Dichlorodifluoromethane	< 100	< 100	m,p-Xylene	< 10
1,1-Dichloroethane	< 10	< 10	MTBE	< 200
1,2-Dichloroethane	< 10	< 10	Acetone	< 500
1,1-Dichloroethene	< 10	< 10	2-Butanone (MEK)	< 100
cis-1,2-Dichloroethene	< 10	< 10	4-Methyl-2-Pentanone (MIBK)	< 100
trans-1,2-Dichloroethene	< 10	< 10	2-Hexanone	< 100
1,2-Dichloropropane	< 10	< 10		
1,3-Dichloropropane	< 10	< 10		
2,2-Dichloropropane	< 10	< 10		
1,1-Dichloropropene	< 10	< 10		
cis-1,3-Dichloropropene	< 10	< 10		
trans-1,3-Dichloropropene	< 10	< 10		

Approved By: Timothy Schaper, Organics Supervisor

*Timothy D. Schaper (w.c.)*



**APPENDIX H**

**CONTRACT LABORATORY ANALYTICAL REPORT - WATER**



August 15, 1995

David Deane  
Dufresne-Henry  
Precision Park  
N. Springfield, VT 05150

Subject: Laboratory Report

Eastern Analytical, Inc. ID #: 3251 DUF  
Client Identification: 415033/Rodgers Corp.  
Sample Quantity/Type: 4 aqueous  
Date Received: 8/3/95

Dear Mr. Deane:

Enclosed please find the laboratory report for the above identified project. All analyses were subjected to rigorous quality control measures to assure data accuracy.

The following standard abbreviations and conventions apply throughout all Eastern Analytical, Inc. reports:

- < = "less than" followed by the detection limit
- TNR = Testing Not Requested
- ND = None Detected, no established detection limit
- BRL = Below Reporting Limits

If you have any questions regarding the results contained within, please feel free to directly contact me, the department supervisor, or the analytical chemist who performed the testing in question.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

*William Brunkhorst (LS)*

William Brunkhorst  
President



# LABORATORY REPORT

Eastern Analytical, Inc. ID#: 3251 DUF

Client: Dufresne-Henry

Client Designation: 415033/Rodgers Corp.

## Volatile Organic Compounds

Sample ID:	1	2	3		1	2	3
Matrix:	Aqueous	Aqueous	Aqueous		Aqueous	Aqueous	Aqueous
Date Received:	8/3/95	8/3/95	8/3/95		8/3/95	8/3/95	8/3/95
Units:	µg/L	µg/L	µg/L		µg/L	µg/L	µg/L
Date of Analysis:	8/9/95	8/9/95	8/9/95		8/9/95	8/9/95	8/9/95
Analyst:	CWC	CWC	CWC		CWC	CWC	CWC
EPA Method:	8260	8260	8260		8260	8260	8260
Benzene	<1	<1	<1	Ethylbenzene	<1	<1	<1
Bromobenzene	<1	<1	<1	Hexachlorobutadiene	<2	<2	<2
Bromochloromethane	<2	<2	<2	Isopropylbenzene	<1	<1	<1
Bromodichloromethane	<2	<2	<2	p-Isopropyltoluene	<1	<1	<1
Bromoform	<2	<2	<2	Methylene chloride	<2	<2	<2
Bromomethane	<10	<10	<10	Naphthalene	<1	<1	<1
n-Butylbenzene	<1	<1	<1	n-Propylbenzene	<1	<1	<1
sec-Butylbenzene	<1	<1	<1	Styrene	<1	<1	<1
tert-Butylbenzene	<1	<1	<1	1,1,1,2-Tetrachloroethane	<2	<2	<2
Carbon tetrachloride	<2	<2	<2	1,1,2,2-Tetrachloroethane	<2	<2	<2
Chlorobenzene	<2	<2	<2	Tetrachloroethene	<2	<2	<2
Chloroethane	<10	<10	<10	Toluene	<1	<1	<1
Chloroform	<2	<2	<2	1,2,3-Trichlorobenzene	<1	<1	<1
Chloromethane	<10	<10	<10	1,2,4-Trichlorobenzene	<1	<1	<1
2-Chlorotoluene	<2	<2	<2	1,1,1-Trichloroethane	<b>400</b>	<2	<b>110</b>
4-Chlorotoluene	<1	<1	<1	1,1,2-Trichloroethane	<2	<2	<2
Dibromochloromethane	<2	<2	<2	Trichloroethene	<2	<2	<2
1,2-Dibromo-3-chloropropane	<2	<2	<2	Trichlorofluoromethane	<10	<10	<10
1,2-Dibromoethane	<2	<2	<2	1,2,3-Trichloropropane	<2	<2	<2
Dibromomethane	<2	<2	<2	1,2,4-Trimethylbenzene	<1	<1	<1
1,2-Dichlorobenzene	<1	<1	<1	1,3,5-Trimethylbenzene	<1	<1	<1
1,3-Dichlorobenzene	<1	<1	<1	Vinyl chloride	<10	<10	<10
1,4-Dichlorobenzene	<1	<1	<1	o-Xylene	<1	<1	<1
Dichlorodifluoromethane	<10	<10	<10	m,p-Xylene	<1	<1	<1
1,1-Dichloroethane	<b>16</b>	<2	<2	MTBE	<20	<20	<20
1,2-Dichloroethane	<2	<2	<2	Acetone	<50	<50	<50
1,1-Dichloroethene	<b>5</b>	<2	<2	2-Butanone (MEK)	<10	<10	<10
cis-1,2-Dichloroethene	<2	<2	<2	4-Methyl-2-Pentanone (MIBK)	<10	<10	<10
trans-1,2-Dichloroethene	<2	<2	<2	2-Hexanone	<10	<10	<10
1,2-Dichloropropane	<2	<2	<2				
1,3-Dichloropropane	<2	<2	<2				
2,2-Dichloropropane	<2	<2	<2				
1,1-Dichloropropene	<2	<2	<2				
cis-1,3-Dichloropropene	<2	<2	<2				
trans-1,3-Dichloropropene	<2	<2	<2				

Approved By: Timothy Schaper, Organics Supervisor

*Timothy D. Schaper (CWC)*



# LABORATORY REPORT

Eastern Analytical, Inc. ID#: 3251 DUF

Client: Dufresne-Henry

Client Designation: 415033/Rodgers Corp.

## Volatile Organic Compounds

Sample ID:	W	W
Matrix:	Aqueous	Aqueous
Date Received:	8/3/95	8/3/95
Units:	µg/L	µg/L
Date of Analysis:	8/9/95	8/9/95
Analyst:	CWC	CWC
EPA Method:	8260	8260
Benzene	< 1	Ethylbenzene < 1
Bromobenzene	< 1	Hexachlorobutadiene < 2
Bromochloromethane	< 2	Isopropylbenzene < 1
Bromodichloromethane	< 2	p-Isopropyltoluene < 1
Bromoform	< 2	Methylene chloride < 2
Bromomethane	< 10	Naphthalene < 1
n-Butylbenzene	< 1	n-Propylbenzene < 1
sec-Butylbenzene	< 1	Styrene < 1
tert-Butylbenzene	< 1	1,1,1,2-Tetrachloroethane < 2
Carbon tetrachloride	< 2	1,1,2,2-Tetrachloroethane < 2
Chlorobenzene	< 2	Tetrachloroethene < 2
Chloroethane	< 10	Toluene < 1
Chloroform	< 2	1,2,3-Trichlorobenzene < 1
Chloromethane	< 10	1,2,4-Trichlorobenzene < 1
2-Chlorotoluene	< 2	1,1,1-Trichloroethane <b>150</b>
4-Chlorotoluene	< 1	1,1,2-Trichloroethane < 2
Dibromochloromethane	< 2	Trichloroethene < 2
1,2-Dibromo-3-chloropropane	< 2	Trichlorofluoromethane < 10
1,2-Dibromoethane	< 2	1,2,3-Trichloropropane < 2
Dibromomethane	< 2	1,2,4-Trimethylbenzene < 1
1,2-Dichlorobenzene	< 1	1,3,5-Trimethylbenzene < 1
1,3-Dichlorobenzene	< 1	Vinyl chloride < 10
1,4-Dichlorobenzene	< 1	o-Xylene < 1
Dichlorodifluoromethane	< 10	m,p-Xylene < 1
1,1-Dichloroethane	2	MTBE < 20
1,2-Dichloroethane	< 2	Acetone < 50
1,1-Dichloroethene	< 2	2-Butanone (MEK) < 10
cis-1,2-Dichloroethene	< 2	4-Methyl-2-Pentanone (MIBK) < 10
trans-1,2-Dichloroethene	< 2	2-Hexanone < 10
1,2-Dichloropropane	< 2	
1,3-Dichloropropane	< 2	
2,2-Dichloropropane	< 2	
1,1-Dichloropropene	< 2	
cis-1,3-Dichloropropene	< 2	
trans-1,3-Dichloropropene	< 2	

Approved By: Timothy Schaper, Organics Supervisor

*Timothy D. Schaper (cwc)*



**DUFRESNE-HENRY, INC.**  
 Precision Park  
 NORTH SPRINGFIELD, VERMONT 05150

AUG 31 1995  
**LETTER OF TRANSMITTAL**

(802) 886-2261

DATE 0/30/95	JOB NO. 415033
ATTENTION MS. LYNDA PROVENCHER	
RE ROGERS CORP - LIMITED SITE INVESTIGATION SMS # 95-1796	

TO AGENCY OF NATURAL RESOURCES  
DEC, HMMD  
103 SOUTH MAIN ST/WEST OFFICE  
WATERBURY, VT 05671-0404

GENTLEMEN:

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:

- Shop drawings       Prints       Plans       Samples       Specifications  
 Copy of letter       Change order       \_\_\_\_\_

COPIES	DATE	NO.	DESCRIPTION
1			REPORT - LIMITED SITE INVESTIGATION ROGERS CORPORATION DORSET, VT

THESE ARE TRANSMITTED as checked below:

- For approval       Approved as submitted       Resubmit \_\_\_\_\_ copies for approval  
 For your use       Approved as noted       Submit \_\_\_\_\_ copies for distribution  
 As requested       Returned for corrections       Return \_\_\_\_\_ corrected prints  
 For review and comment       \_\_\_\_\_  
 FOR BIDS DUE \_\_\_\_\_ 19 \_\_\_\_\_       PRINTS RETURNED AFTER LOAN TO US

REMARKS \_\_\_\_\_  
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COPY TO ROGER RUMNEY

SIGNED: Bruce Coy