PHASE II ENVIRONMENTAL SITE INVESTIGATION

FORMER CANADIAN PACIFIC RAILWAY
ST. JOHNSBURY RAIL YARD SITE
Lyndonville Subdivision
St. Johnsbury, Vermont

MARCH 1998

Prepared For:

Canadian Pacific Railway
Environmental Affairs - Suite 400, Windsor Station
910 Peel Street, P.O. Box 6042, Station Centre-Ville
Montreal, Quebec H3C 3E4

Prepared By

Tewhey Associates
500 Southborough Drive
South Portland, Maine 04106
(207) 772-2242

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EXECUTIVE SUMMARY

The St. Johnsbury rail yard has been in existence since the 1850s. The rail yard is located in an urban and industrial setting on the eastern edge of downtown St. Johnsbury just west of the Passumpsic River. The site and adjacent area are supplied by public water and sewer. Canadian Pacific Railway (CPR) owned the rail yard from 1964 to 1996 when it was sold to the Northern Vermont Railroad Company. The central portion of the rail yard formerly included the roundhouses, turntables, fueling operations, various shops and other on-site operations buildings. Based on historical information gathered by CPR, six specific areas of the site and including the general yard cinder/slag fill area were identified for investigation.

Tewhey Associates completed a Phase II Environmental Site Investigation of the rail yard in October through December 1997. The investigation consisted of subsurface explorations, field measurements of soil and groundwater, laboratory testing of soil and groundwater, and data evaluation. The investigation identified a sand and gravel formation beneath the site which is moderately permeable to groundwater flow. The direction of groundwater flow is to the east-southeast toward the central axis of the river valley where groundwater likely discharges to the river. Bedrock was found at the eastern edge of the site sloping down in elevation to the south. Soil and groundwater samples were submitted to an independent laboratory for a variety of analytical parameters including volatile organics, semivolatile organics, polynuclear aromatic hydrocarbons, gasoline range organics, total petroleum hydrocarbons, PCBs and metals (i.e., arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver).

The analytical data show significant levels of petroleum-impacted soil and groundwater present beneath a leased parcel which has been used since the 1940s as a bulk storage facility. In other portions of the site, soil and groundwater data show no significant levels of petroleum constituents above groundwater standards and/or guidelines for soil cleanup thresholds established by the Vermont Department of Environmental Conservation.

Based on the investigation findings and conclusions, several items are identified for further resolution. These include (1) closure of an abandoned UST, (2) analysis of petroleum-impacted soil and groundwater on a leased parcel, and (3) future groundwater monitoring including monitoring for gasoline-MTBE migration onto the site.

1.0 INTRODUCTION

The St. Johnsbury, Vermont rail yard has existed as a rail yard facility since the 1850s. The rail yard is 24.9 acres in size and is located at Mile 43.48 of the former Lyndonville Subdivision of the Canadian Pacific Railway (CPR). The rail yard is located to the east and adjacent to the downtown business district of St. Johnsbury. The north to south flowing Passumpsic River is located approximately 150 feet to the east of the yard. The rail yard is bounded to the east by Bay Street. Railroad Street is the nearest road which runs parallel to the site on the west.

The Lyndonville Subdivision was originally part of the Connecticut and Passumpsic Rivers Railroad (CPRR). On March 21, 1866, a fire destroyed the machine shop, blacksmith and wood shops, and the engine house. Subsequently, the main railroad facilities were moved to Lyndonville. In January 1887, CPRR leased the rail line to the Boston and Lowell Railroad Company. Later in October , the rail line was re-leased to the Boston and Maine Railroad Company (BMRR). CPR took over the BMRR operations in 1927. In August 1964, the yard was purchased by CPR from the St. Johnsbury and Lamoille County Railroad. Shortly thereafter, the last passenger service occurred in September 1965 following the decline in use after World War II. In 1996, the yard was sold to the Northern Vermont Railway Company (NVR), a subsidiary of the Canadian-American Railroad Company. Activities in the rail yard over the years included fuel unloading (in the 1960s), and maintenance and repair of engines and rail cars.

As part of the transfer of site ownership in 1996, CPR has assumed responsibility for the assessment and mitigation of environmental impacts which may have occurred at the site during its period of ownership. In mid-1997, CPR completed a review of corporate, state and local environmental records pertaining to the yard. On the basis of this review, a number of specific areas in the yard were identified where historical activities involved the use of petroleum and other products associated with rail yard activities. Subsequently, in October 1997, CPR retained Tewhey Associates of South Portland, Maine to complete a Phase II Environmental Site Investigation of the rail yard site.

This report presents an understanding of the St. Johnsbury yard findings based on data collected from October through December 1997. Section 2.0 of the report provides general information on the site setting. Section 3.0 presents the explorations and sampling performed at the site. Section 4.0 characterizes the site hydrogeology, and describes the distribution of various compounds detected in soil and groundwater. Section 5.0 describes the regulatory framework for discussing the site conditions with the State of Vermont. Section 6.0 provides an assessment of the investigative findings in terms of the regulatory framework, site setting and concern at potential receptors. Section 7.0 presents the conclusions and recommendations of this study.

2.0 ST. JOHNSBURY RAIL YARD SETTING

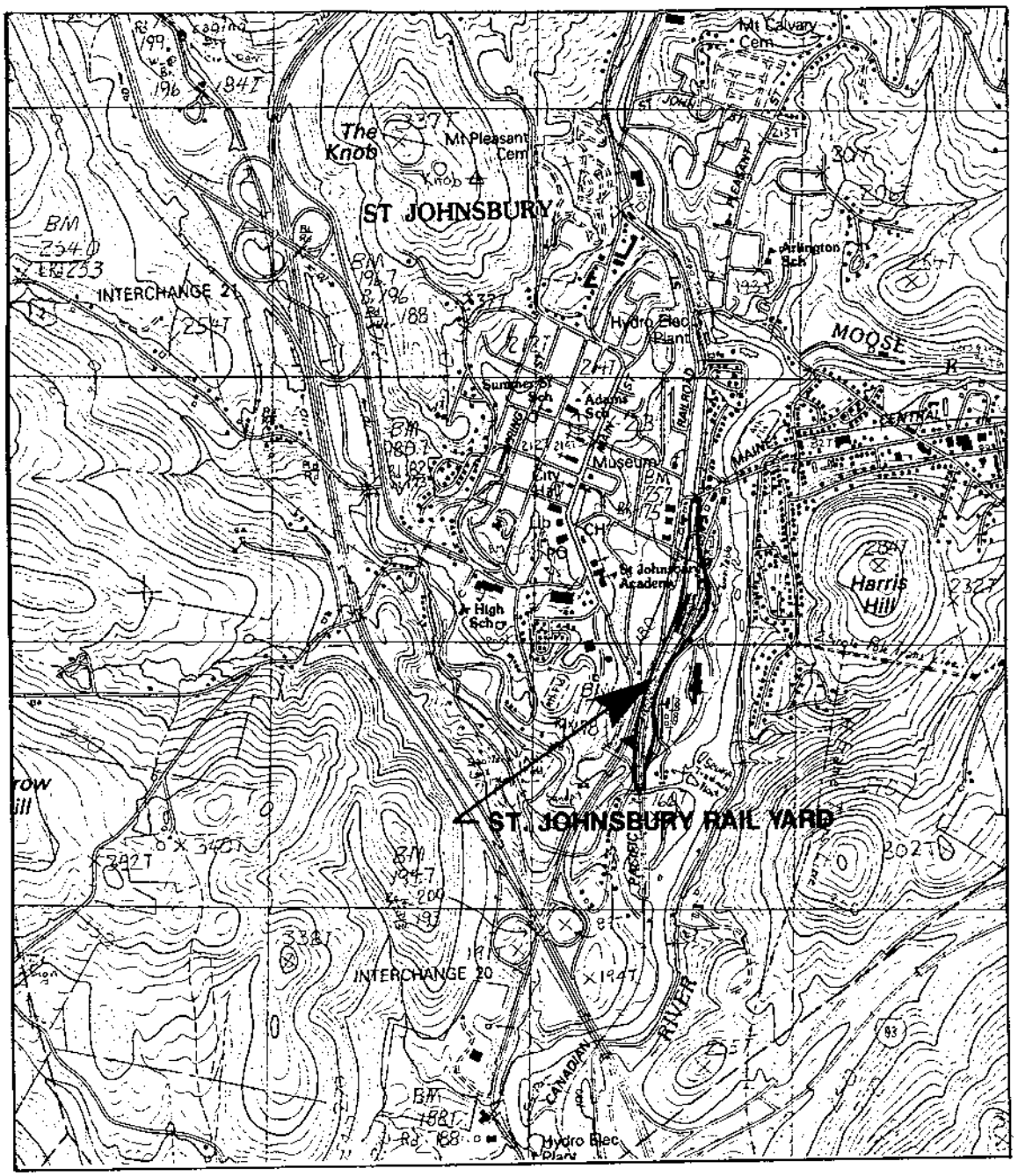
2.1 LOCATION AND SITE LAYOUT

Figure 1 shows the location of the rail yard on the eastern edge of downtown St. Johnsbury. The north and south sections of the rail yard are narrow and consist principally of track line. The central portion of the yard is broad and contains multiple track lines with the main historical yard operations located to the east of the tracks. Figure 2 shows the details of the site layout. The central portion of the rail yard formerly included the roundhouses, turntables, fueling operations, various shops and other on-site operations buildings. The rail yard and adjacent areas are supplied by public water provided by St. Johnsbury. St. Johnsbury obtains its drinking water source from Styles Pond located in Waterford approximately three miles to the east. The municipal sewer system also serves the area. Manholes and sewer lines formerly connected to the on-site buildings were identified during our field investigation.

The railroad has now or in the past leased parcels of land for other uses. Based on information provided by CPR, the following is a summary of the leased parcels. The locations are highlighted in Figure 2:

- MMM Limited: Located at the north end of the yard; 2,035 square feet of land leased from 1979 to the present for use as a parking lot.
- Eric Stenson/Mark Nurenberg: Located west of the central yard; 1,405 square feet of land leased from 1983 to the present to address a warehouse encroachment.
- A.B. Pomerleau: Located adjacent to the Stenson leased parcel; 444 square feet of land leased from 1977 to the present to maintain a fence encroachment.
- Fred Lewis Oil Company: Located at the south end of the yard; 35,090 square feet of land currently being leased for use as a petroleum bulk storage facility. Lewis originally leased five tanks from Goss Oil from 1977 to 1987 and subsequently purchased Goss Oil's equipment in the late 1980s. Goss Oil reportedly had leased the land from CPR at an unknown time in the past. The original operator at this site was Gulf Oil in the 1940s.
- Allen Lumber Company, Inc.: Located at the north end of the central yard area; 11,310 square feet of land leased from 1962 to the present to address a warehouse encroachment.
- Swift Company: Located across the track line from the Allen Lumber Company lease; parcel of land formerly leased (1919 to at least 1961) for a beef warehouse.
- E.T. & H.K.Ide: Located at the north end of the yard; parcel of land formerly leased (1900 to at least 1958) due to a coal shed encroachment.
- Allen Lumber Company: Located at the north end of the central yard area; parcel of land formerly leased in the 1960s with no further information.
- Caledonia Record Publishing Co.: Located at the north end of the central yard area; parcel of land formerly leased in the 1960s with no further information.

Based on CPR's understanding of these leased parcels, the Lewis Oil Company leased site has been used as a bulk petroleum operation for over 50 years and was subject to a cleanup action required by the Vermont Agency of Natural Resources in April 1990. Approximately 120 cubic yards of petroleum-



FROM USGS ST.JOHNSBURY, VERMONT
QUADRANGLE TOPOGRAPHIC MAP 1983

0 2,000
SCALE IN FEET

FIGURE 1
SITE LOCATION MAP
ST. JOHNSBURY RAIL YARD SITE
ST. JOHNSBURY, VERMONT
TEWHEY ASSOCIATES

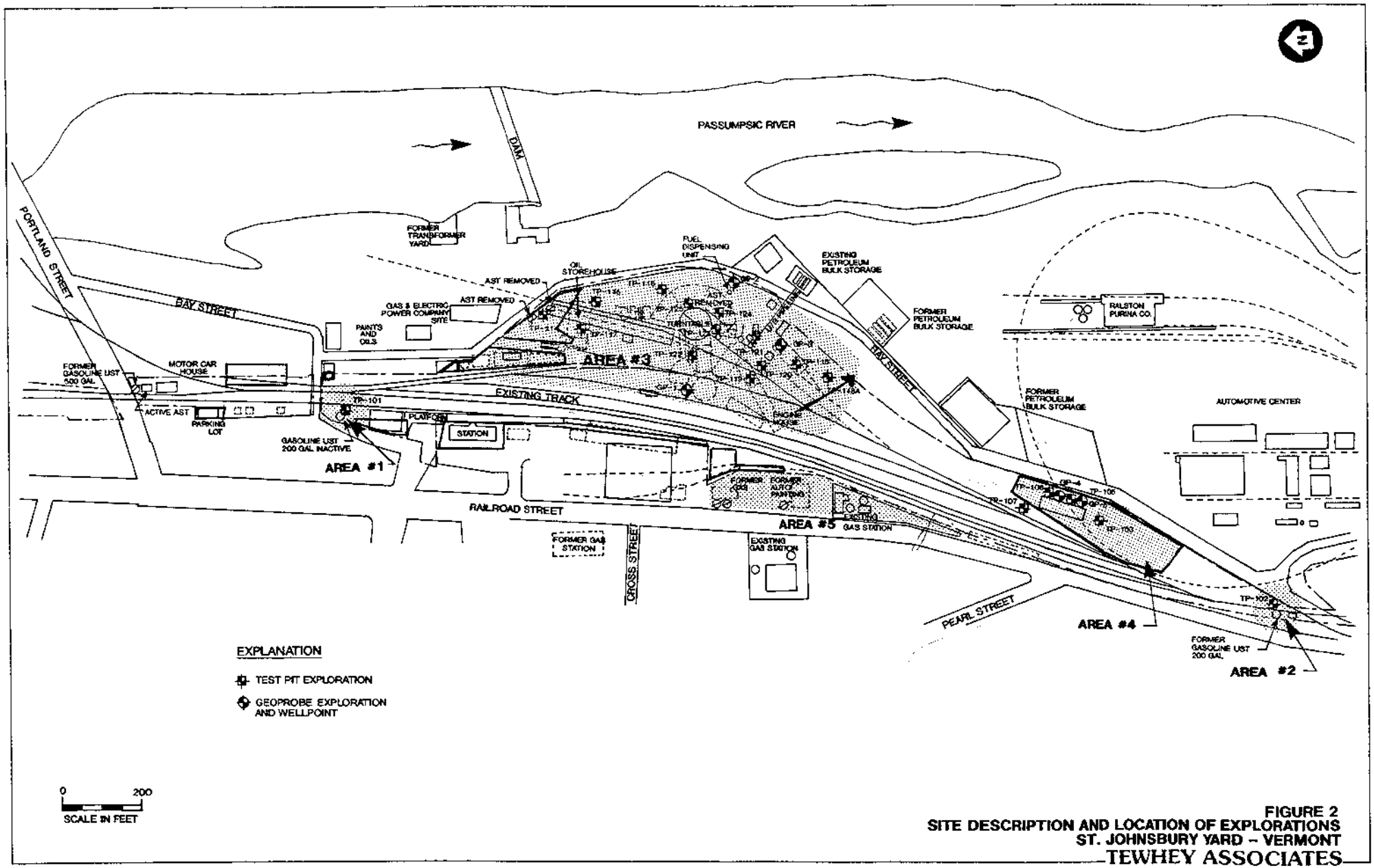


FIGURE 2
SITE DESCRIPTION AND LOCATION OF EXPLORATIONS
ST. JOHNSBURY YARD – VERMONT
TEWHEY ASSOCIATES

impacted soil was excavated, stockpiled on plastic on the site and subsequently monitored until biodegradation activity reduced the contamination to below a target of 20 parts per million (ppm) PID measurement. CPR's background research found no evidence of an environmental concern at the remaining leased parcels identified above.

The nearby area surrounding the rail yard is developed and occupied by commercial and industrial businesses. Commercial stores, offices and gasoline service stations occupy the business district to the west along Railroad Street. Further to the west-southwest, the commercial district is bordered by a residential neighborhood located on Cross and Pearl Streets. The businesses along Bay Street to the east include (now or formerly) an electric power company site, lumber yards, hardware stores, various petroleum storage and distribution operations, automotive repair shops, a former Ralston Purina Co. plant and a former granite company which later became a scrap yard.

Several properties in the vicinity have been identified on the Vermont Department of Environmental Conservation (VtDEC) active hazardous sites list (updated through 1996) due to a potential environmental concern. Located on Portland Street to the north of the rail yard, the VtDEC identified by name (now or formerly) Bedards Mobil - Site #931407, St. Johnsbury Trucking - Site #941579, 13 Portland Street - #941711 and Pratt-Read - Site #770188. Located on Railroad Street to the west, the listed properties include Railroad Street Texaco - Site #890433, Depot Square Apartments - Site #931524 and Windshield World - Site #931549. Located on Bay Street to the east, the listed properties include the former Ralston Purina Plant - Site #951844, Northern Petroleum - Site #911169 and Lawrence Sangravco - Site #921244. The VtDEC records indicate that remediation was undertaken at the Railroad Street Texaco and the Northern Petroleum site. The remaining sites are listed for monitoring or further investigation.

2.2 SITE TOPOGRAPHY AND REGIONAL GEOLOGY

The St. Johnsbury rail yard is located on a terrace formation that is elevated more than 20 feet above the level of the Passumpsic River. The yard is relatively flat although the overall slope from north to south results in a 14-foot drop in elevation. The Lewis Oil leased site is located at the base of the terrace formation and has the lowest elevation in relation to the remaining portions of the site.

To the west of the site and terrace formation, the topography of the land rises upward in elevation. East toward the river from the central portion of the rail yard, the terrace drops steeply from Bay Street down to the river flood plain. In general, with respect to surface water drainage and subsurface groundwater flow, the regional trend is from west to east-southeast into the Passumpsic River. Across the entire site, the ground surface consists of sand, gravel, ash or cinder fill which are relatively porous to water infiltration into the ground. As a result, the nature of the porous ground and flat topography provide for minor runoff from the site.

According to the *Surficial Geologic Map of Vermont* (Vermont Geological Survey, 1970), the geologic deposits located beneath the rail yard and adjacent areas consists of (1) glaciofluvial, kame delta, sand and gravel deposits as the terrace formation, and (2) glaciolacustrine, gravel and sand littoral sediments along the bottom of the river valley. The bedrock found beneath the glacial sediments is known as the Waits River Formation (*The Geology of the St. Johnsbury Quadrangle, Vermont and New Hampshire,*

Leo M. Hall, Vermont Geological Survey, 1959, Bulletin No. 13). This bedrock is composed principally of calcareous granulites and schists. A small outcrop of bedrock was observed at the site along Bay Street near the former oil storehouse building. No other bedrock outcrops were observed in the area of the site.

2.3 RAIL YARD LAYOUT AND AREAS OF STUDY

Figure 2 shows the layout of the rail yard with existing and former buildings. The removed buildings and facilities that had been owned by CPR include the Section Toolhouses, Signal Maintainer's House, Track Scale & Scale House, Ice House, Oil House, Cattle Yard/Stock Pen, Sand House, Coal Shed, Coaling Plant, Roundhouses, Engineer House, Car House, Blacksmith Shop, Car Inspector's House, Tool Shed, Repair Building, Stores Building, Water Tank, Car & Locomotive Repair Crew Building and Switchman's Shanty. Other facilities sold by CPR either exist today or have been removed. The Station is now a commercial center. The Express Building and Freight Shed have been removed. The existing on-site buildings include the RIP tracks (inactive), Motor Car House, Flammable Goods Shed, Communications Building and Yard Office. On the Lewis Oil leased parcel, there are ten existing aboveground petroleum storage tanks (ASTs) enclosed on three sides by a concrete wall and on the northwest (fourth) side by an earth embankment (i.e., the slope of the terrace formation). The delivery trucks are supplied by an unloading rack that is also located on the site.

The activities in the rail yard have relied on the use of aboveground and underground petroleum storage tanks over the years. A summary of tanks and pertinent information is provided in the following table.

TABLE 1
RAIL YARD PETROLEUM STORAGE TANKS

Tank ID.	Tank #1	Tank #2	Tank #3	Tank #4	Tank #5	Tank #6	Tank #7
Type	UST	UST	UST	AST	AST	AST	AST
Location	North Yard	Area 1	Area 2	North Yard	Area 3	Area 3	Area 3
Product	Gasoline	Gasoline	Gasoline	Gasoline	Unknown	Oil	Oil
Capacity (gal)	500	200	200	215	Unknown	Unknown	Unknown
Status	Removed	Inactive (filled)	Believed Removed	Active	Removed	Removed	Removed
Age (yrs)	>20	>20	>20	>20	in 1960s	in 1958	in 1958

Tank #1 was removed in 1991 under consultant supervision following the requirements of the Vermont Department of Environmental Conservation (VtDEC). The inactive Tank #2 is was abandoned in place and filled with gravel at an unknown time in the past. Tank #3 was not found during our investigation. An effort was made with a metal detector and railroad personnel to locate the tank, however, the tank was not located. According to the railroad personnel, the UST was likely removed during the course of constructing new stormwater drainage, installing the communications building and re-building the nearby railroad crossing at Bay Street. Tank #4, located inside a metal shed at the north end of the yard, is presently used by the railroad.

Aboveground petroleum storage tanks, not listed above in the table, are also present at the Lewis Oil Company leased site. The ten ASTs on-site range from 10,000 to 20,000 gallons each, thus providing for a total capacity of up to 150,000 gallons. Five of the tanks were in place in the 1940s and the additional five were added some time after World War II. According to background research completed by CPR, three of the tanks are actively used to store No. 2 fuel oil and one additional tank is actively used to store kerosene. The remaining six tanks are generally kept in an empty condition.

Based on information gathered from historical records, CPR identified six areas in the St. Johnsbury rail yard that warranted an investigative study to determine whether or not an environmental concern is present. The six areas are identified below:

TABLE 2
RAIL YARD AREAS OF INVESTIGATION

	POTENTIAL CONCERN	FOCUS OF INVESTIGATION
AREA #1	UST #2	Impact in soil from former UST operations
AREA #2	UST #3	Impact in soil from former UST operations
AREA #3	Central Yard Operations	Impact in soil and groundwater from former railroad operations (i.e., roundhouses, oil houses, repair facilities and fueling activities)
AREA #4	Lewis Oil Lease	Impact in soil and groundwater from bulk plant
AREA #5	Upgradient Uses	Impact in soil and groundwater from off-site gasoline stations and auto painting
GENERAL YARD #6	Fill Materials	Impact from railroad ash, cinders, slag, etc.

CPR considered the fill materials located in various portions of the yard (Area #6) to be included as part of the Phase II Environmental Site Assessment. The remaining sections of this report provide a description of the investigations completed at the site and the significant findings resulting from the study.

3.0 SITE INVESTIGATIONS

The purpose of the Phase II Environmental Site Investigation was to:

1. Evaluate the presence of hydrocarbon impacted soil and groundwater in the identified areas of concern, and evaluate other types of potential impact by testing for heavy metals, polynuclear aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs) and PCBs,

2. Evaluate the fill materials for potential environmental conditions of concern,

3. Characterize the subsurface geology and hydrogeology including flow direction and velocity,

4. Evaluate the site findings in relation to the surrounding land uses and potential receptors,

5. Prepare a report of the investigation findings and present the information to CPR and the VtDEC.

In order to accomplish these objectives, Tewhey Associates reviewed available file information provided from CPRs background file research and completed a number of subsurface exploration and sampling activities. The explorations included backhoe-dug test pits, Geoprobe borings and soil sampling, Geoprobe wells and groundwater sampling, laboratory analysis, field instrument screening of soil and groundwater, hydraulic conductivity testing, water level observations and elevation survey. A summary of the explorations and sampling activities completed for the Phase II investigation is provided in Table 3. The locations of exploration and sampling sites along with the physical layout and areas of interest in the yard are shown in Figure 2. The numbered locations in Figure 2 correspond to the area numbers listed in Table 3.

A description of the field investigation activities is provided in the following sections. The areas of study in the rail yard are divided into three separate base maps. Areas #1 and #2 are combined on one base map. Areas #3 and #5 are presented on a second base map, and Area #4 is shown on a third base map. These base maps are used in this report to depict the data collected for the Phase II investigation.

3.1 TEST PITS

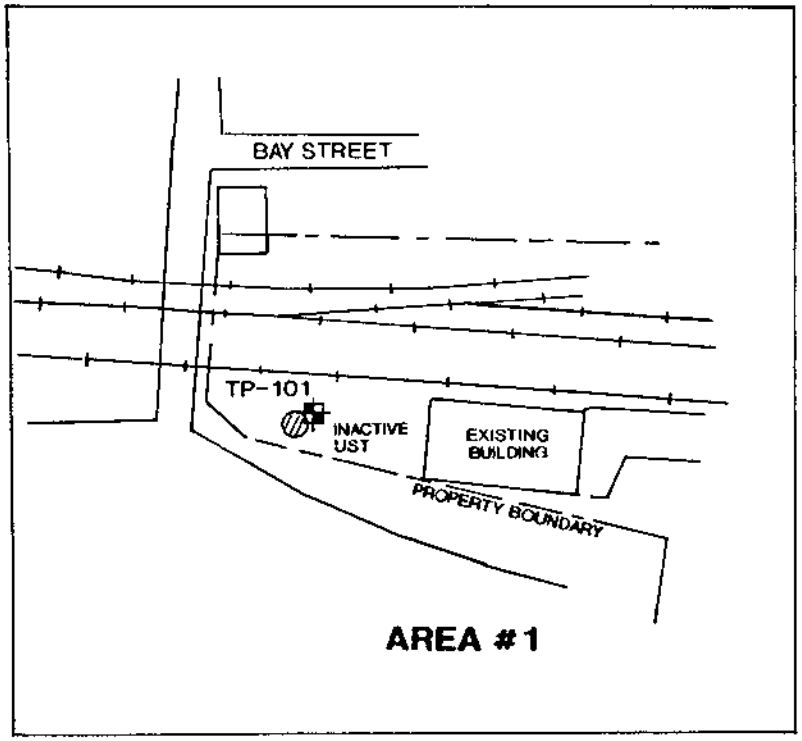
Tewhey subcontracted with Calkins Excavating of Danville, Vermont for a backhoe and operator to complete a test pit exploration program for the site. Dig Safe and the local Water and Sewer Department were contacted to clear utilities prior to the start of work. The test pit explorations were completed on October 28 and 29, 1997. The exploration locations are shown on Figures 3, 4 and 5.

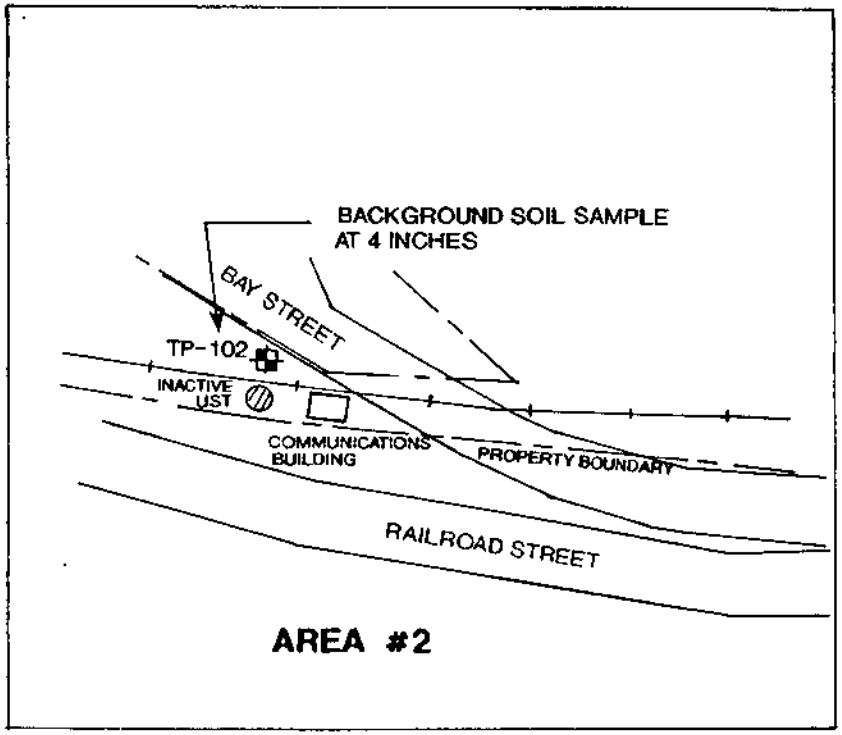
Nineteen test pits were dug in the rail yard to investigate the shallow subsurface geology and to evaluate soil conditions in the identified areas of study. One test pit was completed in each of Areas #1 and #2, and were identified as TP-101 and TP-102, respectively (see Figure 3). Thirteen test pits were completed in the central yard - Area #3 and were identified as TP-114 through TP-125 (see Figure 4). An added test pit identified as TP-118A is also included in this group. Four test pits were completed at the Lewis Oil leased parcel - Area #4 and were identified as TP-103, TP-105, TP-106 and TP-107 (see Figure 5). Test pit TP-104 was not done because of possible underground piping/utility interference.

TABLE 3
SUMMARY OF EXPLORATIONS

EXPLORATION/ [AREA DESIGNATION]	LOCATION IN RAIL YARD	DEPTH (ft)	SAMPLES	LAB ANALYTES
TP-101 [1]	UST - North End	11	PID & Soil @ 11 ft	TPH, BTEX, MTBE
TP-102 [2]	UST - South End	18	PID & Soil @ 18 ft	BTEX, MTBE
TP-103 [4]	Lewis Leased Parcel	5	PID & Soil @ 5 ft	TPH
TP-105 [4]	Lewis Leased Parcel	5	PID & Soil @ 5 ft	GRO, TPH
TP-106 [4]	Lewis Leased Parcel	4	PID & Soil @ 3 ft	GRO, TPH
TP-107 [4]	Lewis Leased Parcel	14	PID & Soil @ 5 ft	TPH
TP-114 [3]	Central Yard	6.5	PID in Soil	
TP-115 [3]	Central Yard	9	PID & Soil @ 2-3 ft	TPH, PAHs, Metals
TP-116 [3]	Central Yard	8	PID in Soil	
TP-117 [3]	Central Yard	12	PID in Soil	
TP-118 [3]	Central Yard	18	PID & Soil @ 15 ft	GRO, TPH
TP-118A [3]	Central Yard	10	PID & Soil @ 1 ft	PAHs, Metals
TP-119 [3]	Central Yard	13	PID & Soil @ 3-inches	SVOC, PCBs, Metals
TP-119 [3]	Central Yard	13	PID & Soil @ 13 ft	TPH
TP-120 [3]	Central Yard	14	PID & Soil @ 7 ft	GRO
TP-120 [3]	Central Yard	14	PID & Soil @ 12 ft	VOC
TP-121 [3]	Central Yard	15	PID in Soil	
TP-122 [3]	Central Yard	14	PID in Soil	
TP-123 [3]	Central Yard	8	PID in Soil	
TP-124 [3]	Central Yard	17	PID in Soil	
TP-125 [3]	Central Yard	19	PID & Soil @ 19 ft	VOC
Soil Pile [3]	Central Yard	5	PID & Soil @ 5 ft	GRO,TPH
TSS-1 [3]	Turntable	surface	Soil @ surface	TPH, PCBs
Bkgd Soil [2]	South End	4-inches	Soil @ 4-inches	Metals
GP-1 [3]	Central Yard	30	PID in Soil	
GP-2 [3]	Central Yard	28.5	PID in Soil	
GP-3 [3]	Central Yard	30	PID in Soil	
GP-4 [4]	Lewis Leased Parcel	12.5	PID in Soil	
GP-5 [4]	Lewis Leased Parcel	12.5	PID in Soil	
GP-6 [5]	Along West Boundary	30	PID & Soil @ 28-30 ft	BTEX , MTBE
GP-7 [5]	Along West Boundary	30	PID & Soil @ 28-30 ft	BTEX , MTBE
GP-8 [5]	Along West Boundary	30	PID & Soil @ 24-26 ft	BTEX , MTBE
GP-8 [5]	Along West Boundary	30	PID & Soil @ 28-30 ft	VOC
GP-9 [5]	Along West Boundary	30	PID in Soil	
GP-1 [3]	Central Yard	30	Groundwater 20-30 ft	GRO, TPH, VOC, PAHs, Metals
GP-2 [3]	Central Yard	28.5	Groundwater 24-28.5 ft	GRO, TPH, VOC, PAHs, Metals
GP-3 [3]	Central Yard	30	Groundwater 24-30 ft	GRO, TPH, VOC, PAHs, Metals
GP-4 [4]	Lewis Leased Parcel	12.5	Groundwater 5-12.5 ft	GRO, TPH
GP-5 [4]	Lewis Leased Parcel	12.5	Groundwater 5-12.5 ft	GRO, TPH

Notes:
1. See Figure 2 for locations of explorations for Area Designation. See Appendix A for exploration logs.
2. PID = Photoionization Detector
3. Analytes: Volatile Organic Compounds (VOCs) by Method 8260; SemiVolatile Organic Compounds (SVOCs) by Method 8270; Total Petroleum Hydrocarbons (TPH) by Method 8100; BTEX and MTBE by Method 8021; Metals (arsenic, barium, cadmium, chromium, lead, selenium and silver) by Method 6010/200.7; mercury by Method 7471; and, PCBs by Method 8081.





EXPLANATION

TEST PIT EXPLORATION

0 100

SCALE IN FEET

FIGURE 3
LOCATIONS OF EXPLORATIONS – AREAS #1 AND #2
ST. JOHNSBURY,VT. SITE
TEWHEY ASSOCIATES

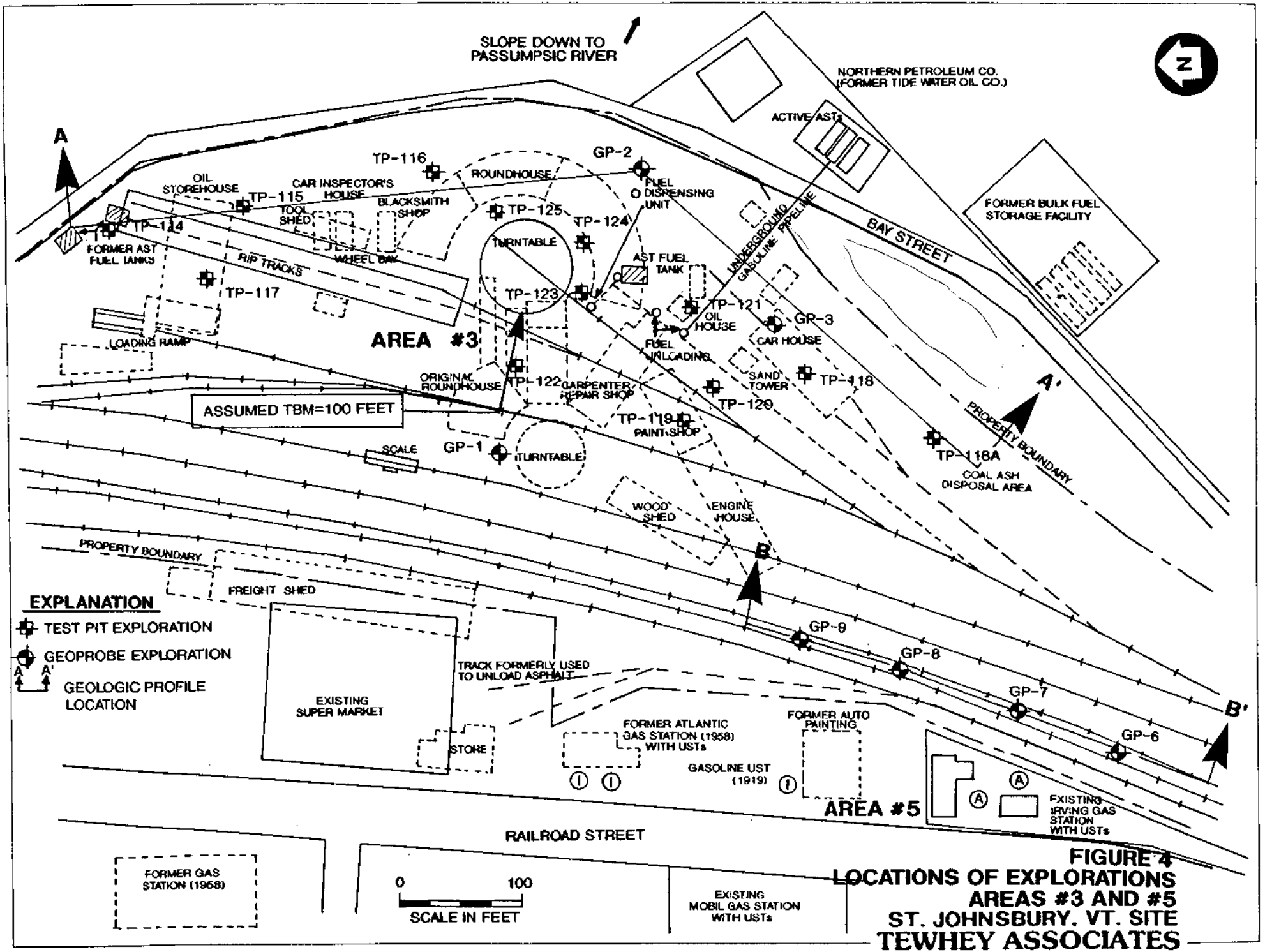
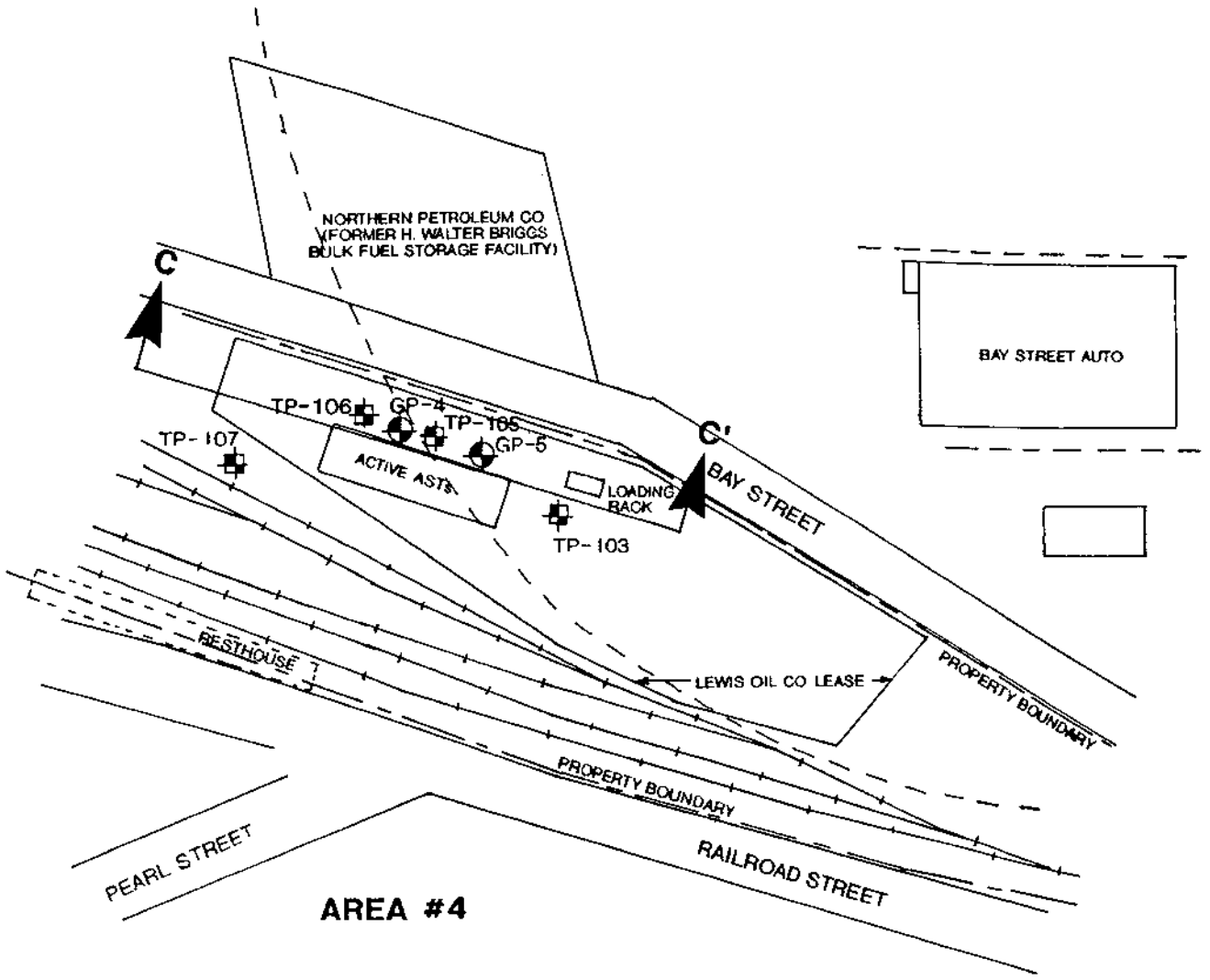


FIGURE 4
LOCATIONS OF EXPLORATIONS
AREAS #3 AND #5
ST. JOHNSBURY, VT. SITE
TEWHEY ASSOCIATES



EXPLANATION

TEST PIT EXPLORATION

GEOPROBE EXPLORATION

C C' GEOLOGIC PROFILE LOCATION

0 100

SCALE IN FEET

FIGURE 5
LOCATIONS OF EXPLORATIONS – AREA #4
ST. JOHNSBURY,VT. SITE
TEWHEY ASSOCIATES

Test pits TP-108 to TP-113 were not completed and were replaced by Geoprobe borings GP-6 through GP-9 in order to achieve an exploration depth that would extend well below the water table.

The test pit explorations ranged in depth from 4 feet to 19 feet below ground surface (bgs). The test pits were shallow in Area #4 due to the presence of a shallow water table at approximately 4.5 feet bgs. In Areas #1, #2 and #3, the depth to groundwater was much greater (i.e., in excess of 19 feet) thus allowing test pits to be completed to the maximum limit of the backhoe equipment. After completion of each test pit, the excavated soils were put back and compacted into place. The ground surface at each test pit was surveyed to determine the elevation in reference to an assumed datum established for the site.

A portion of the soil samples was placed in ziploc-type bags to conduct field headspace analysis for the presence of volatile compounds. The headspace field screening was conducted after warming the sample and allowing the vapors to equilibrate in the bag with the soil. The headspace measurements were made using a Photovac Microtip photoionization detector (PID) to analyze the headspace vapor within the ziploc bag. The PID was calibrated with a 100 parts per million (ppm) isobutylene gas standard. Soil screening by PID headspace provided a method to characterize soil quality in test pits and supplement the findings from laboratory analysis on selected soil samples.

Reference soil samples were collected and classified by soil type to develop an understanding of the geologic setting. Logs of the test pits were prepared showing the geologic units encountered, PID readings and other observations. The logs are presented in Appendix A and provide the basis for interpreting the geologic conditions discussed later in Section 4.0, On-site Geology.

3.2 GEOPROBE WELLS

Tewhey subcontracted with Atlantic EcoTechnologies, Inc. of Cumberland, Maine to complete a Geoprobe exploration program for the site. Utilities were cleared prior to the start of work. The Geoprobes were completed on November 18 and 19, 1997. The exploration locations are shown on Figures 4 and 5.

Nine Geoprobes were completed in the rail yard to investigate the soil and groundwater conditions and to determine hydraulic characteristics of the soil formation. Three Geoprobe borings and well point installations were completed in the central yard - Area #3 and were identified as GP-1, GP-2 and GP-3. Two Geoprobe borings and well point installations were completed at the Lewis Oil leased parcel - Area #4 and were identified as GP-4 and GP-5. Four Geoprobe soil borings were completed in Area #5 and were identified as GP-6 through GP-9. The Geoprobe explorations in which wells were installed ranged in depth from 12.5 feet to 30 feet bgs. The four Geoprobe borings in Area #5 were all completed to a depth of 30 feet bgs.

The soil probes were advanced using a combination of hydraulic rams and a hydraulic hammer to push small diameter tools into the subsurface. Soil samples were generally collected at 5-foot intervals starting at depths below ground surface based on available soil descriptions from nearby test pit explorations. Soil samples consisting of 0.75-inch diameter soil cores were recovered in plastic sleeves inserted inside the Geoprobe drill rods. A portion of the soil samples was placed in ziploc-type bags to

conduct field headspace analysis for the presence of volatile compounds in a manner similar to that described for the test pit explorations.

Reference soil samples were collected and classified by soil type to develop an understanding of the geologic setting. Logs of the Geoprobes were prepared showing the geologic units encountered, PID readings and other observations. The logs are presented in Appendix A and provide the basis for interpreting the geologic conditions discussed later in Section 4.0, On-site Geology.

Once the final well depth was selected at each Geoprobe, a steel casing with a 1.5-inch inner diameter was pushed to the desired depth and a 1-inch diameter, Schedule 40 PVC, flush-threaded, monitoring well was installed in the cased hole. Wells were constructed 0.010-inch machine slotted screens using either 5- or 10-foot lengths. The casing was then extracted and clean filter sand along with natural formation sand were allowed to fill the annulus around the well to a point above the well screen. The top two feet of the borehole annulus was filled with a bentonite clay seal, and followed by cement to anchor and seal a steel protective casing into the ground. At GP-1, GP-2 and GP-3, protective casings were constructed with a stickup approximately three feet above the ground. At GP-4 and GP-5, flush-mounted, roadbox protective casings were installed. The permanent well installations were marked with the identification given to each location. The well installations were accessed for measuring water levels, collecting groundwater samples and conducting in-situ permeability testing. At GP-6 through GP-9, the Geoprobe boreholes were backfilled to the surface with bentonite clay seal and sand.

3.3 SITE SURVEY

The locations of the test pit and Geoprobe explorations were determined using a measuring tape to locate the distance of each point relative to fixed features at the site (e.g., buildings, track lines, roadways, etc.).

The elevation at the top of each monitoring well riser and the ground surface elevations at Geoprobes and test pits were determined using a Topcon level and survey rod. Elevations were determined relative to an assumed datum of 100.00 feet established at the site (see Figure 4). The benchmark identified with this elevation is a point marked on the inner concrete edge on the west side of the roundtable located in Area #3.

3.4 HYDROGEOLOGIC PARAMETERS

In order to understand the hydrogeologic regime at the site, the monitoring wells were used to collect hydrologic data including water level measurements and in-situ permeability testing. These data, together with the survey information, were used to determine the elevation of the water table at selected locations and to interpret the direction and rate of groundwater flow beneath the site.

The hydraulic conductivity of the soil was calculated from constant head permeability testing completed at the Geoprobe well installations. The hydraulic conductivity values determined at the site were 5.1×10^{-3} cm/sec at GP-1, 2.0×10^{-3} cm/sec at GP-3, 1.4×10^{-2} cm/sec at GP-4 and 3.5×10^{-2} cm/sec at GP-5. A constant head test was not completed at GP-2 due to the limited saturated thickness present in this well. The geometric mean of these conductivity values is 8.4×10^{-3} cm/sec.

3.5 SOIL SAMPLING PROGRAM

Soil samples were collected for laboratory chemical analysis from the test pit and Geoprobe explorations completed in the six areas of study. The samples were collected during the periods October 28-29, 1997 (test pits) and November 18-19, 1997 (Geoprobes) and were subsequently analyzed by Katahdin Analytical Services of Westbrook, Maine. The soil samples were collected from surface and shallow subsurface depths to a maximum depth of 28-30 feet bgs. The samples were collected in pre-cleaned sample bottles provided by the laboratory. The sample bottles were properly labeled, packed and transported on ice in a cooler to the analytical laboratory. A summary of the sampling program (i.e., locations and depths) is provided in Table 3 as described previously.

The samples were selected based on field observations of obvious staining, odor, etc., PID readings, knowledge of the historical operations in the six study areas and hydrogeologic setting. Petroleum type analyses were completed in areas that may have been historically impacted by fuels and oils. Semivolatile, PAHs, PCBs and metals analyses were completed in surface and shallow subsurface soils or fill (e.g., cinders, slag, etc.) materials and in former maintenance areas. One background soil sample was collected at a shallow depth (4-inches) at the south end of the rail yard (Area #2). The background sample location is shown in Figure 3.

Samples were submitted for laboratory analyses including gasoline range organics (GRO Method 8015M); total petroleum hydrocarbons (TPH-diesel/fuel oil Method Mod. 8100); benzene, toluene, ethylbenzene and xylenes (BTEX Method 8021); methyltertbutyl ether (MTBE Method 8021); volatile organics (VOC Method 8260); semivolatile organics (SVOC Method 8270B for the Target Compound List); polynuclear aromatic hydrocarbons (PAHs Method 8270); PCBs (Method 8081); arsenic, barium, cadmium chromium, lead, selenium and silver metals (Method 6010/200.7); and mercury (Method 7471). The results are summarized in tables and the significant findings are shown on figures that follow in this report. The soil data are presented in units of mg/kg although some of the data were originally reported in other units which were converted to mg/kg. The laboratory analytical reports are provided in Appendix B.

3.6 GROUNDWATER SAMPLING PROGRAM

Groundwater samples were collected for laboratory chemical analysis from the five Geoprobe well installations completed in the Areas #3 and #4. The samples were collected on December 4, 1997 and were subsequently analyzed by Katahdin Analytical Services. The groundwater samples were collected from the well screens installed in groundwater at depths ranging from 12.5 to 30 feet bgs (see Table 3). The samples were collected in pre-cleaned and, as necessary, pre-preserved sample bottles provided by the laboratory after purging at least three well volumes and measuring field parameters. The field parameters included temperature, pH, specific conductance and dissolved oxygen and are presented in Table 4. The sample bottles were properly labeled, packed and transported on ice in a cooler to the analytical laboratory. The field parameters are summarized below.

TABLE 4
FIELD MEASUREMENTS IN GROUNDWATER

	GP-1	GP-2	GP-3	GP-4	GP-5
Temperature °C	11.2	8.8	8.2	8.9	8.4
pH	6.9	7.5	7.2	6.9	6.7
Specific Cond. (µmhos/cm)	2700	1210	760	580	620
Dissolved Oxygen (mg/L)	0.12	7.3	6.45	0.4	1.1

Samples collected from GP-1, GP-2 and GP-3 in Area #3 were submitted for laboratory analyses including gasoline range organics (GRO Method 8015M); total petroleum hydrocarbons (TPH-diesel/fuel oil Method Mod. 8100); volatile organics (VOC Method 8260); polynuclear aromatic hydrocarbons (PAHs Method 8270); PCBs (Method 8081); arsenic, barium, cadmium chromium, lead, selenium and silver metals (Method 6010/200.7); and mercury (Method 7471). The samples collected at GP-4 and GP-5 in Area #4 were analyzed for GRO and TPH. The results are summarized in tables and the significant findings are shown on figures that follow in this report. The soil data are presented in units of mg/L although some of the data were originally reported in other units which were converted to mg/L. The laboratory analytical reports are provided in Appendix B.

4.0 ST. JOHNSBURY RAIL YARD CHARACTERIZATION

This section discusses the geologic and hydrogeologic conditions present at the St. Johnsbury rail yard. The results of the soil and groundwater analyses are also presented.

4.1 ON-SITE GEOLOGY

The St. Johnsbury rail yard is mapped as a glacial fluvial formation consisting of outwash sand and gravel type deposits. The test pit and Geoprobe explorations completed in the yard confirm the mapped conditions. Based on these explorations, three interpretive geologic profiles were developed to illustrate the nature and thickness of the deposits encountered at the site. Figure 6 shows Profile A-A' oriented north to south through Area #3. Figure 7 shows Profiles B-B' and C-C' oriented north to south through Areas #5 and #4, respectively. The horizontal location and orientation of the profiles are shown on Figures 4 and 5.

Area #3 Profile A-A' subsurface geology generally consists of an upper fill layer which varies from less than one foot to several feet thick. At a number of explorations, the upper 1- to 2-foot depth of fill was found to consist of ash, cinders, slag or a mixture with sand or gravel soils. The deeper fill zones in the locations of former buildings were found to include bricks, boulders, wood and miscellaneous solid waste debris. Beneath the fill, the native deposits were found to consist of sand and gravelly sand deposits typical of glacial outwash. At the northern end of Area #3, the outwash deposits are shallow where a refusal surface was encountered ranging from 6.5 to 9 feet bgs. A rock exposure located east of TP-115 is believed to represent an outcrop of the local bedrock formation. The bedrock or refusal surface appears to slope to the south where it was encountered at GP-2 at a depth of 28.5 feet bgs. A refusal surface was not found at any other explorations and no other outcrops were observed at the site.

Area #5 Profile B-B' subsurface geology is similar to the conditions found in Area #3 except that the native soils were observed beginning at the top of the ground surface (i.e., no cinders or fill materials). Sandy deposits were found throughout the Geoprobe explorations with some stratified layers of gravelly sand and silty sand. The depth to groundwater in Areas #3 and #5 varied from 19 to 25 feet bgs.

Area #4 Profile C-C' subsurface geology consists of an upper 2.5-foot gravelly sand layer (i.e., possibly fill) over a stratified sand, gravelly sand and clayey silty fine sand. The depth to groundwater was found at approximately 4.5 feet bgs.

Base on the porous sand and gravel deposits present throughout the site and the calculated hydraulic conductivity values, the native soils are favorable for rainfall infiltration and groundwater movement beneath the site.

4.2 HYDROGEOLOGIC SETTING

Groundwater flow conditions were evaluated for the site on the basis of the geology, water level data and hydraulic conductivity data. The general direction of groundwater flow was interpreted using the water table elevations determined for the five Geoprobe wells located in Areas #3 and #4 (see Table 5).

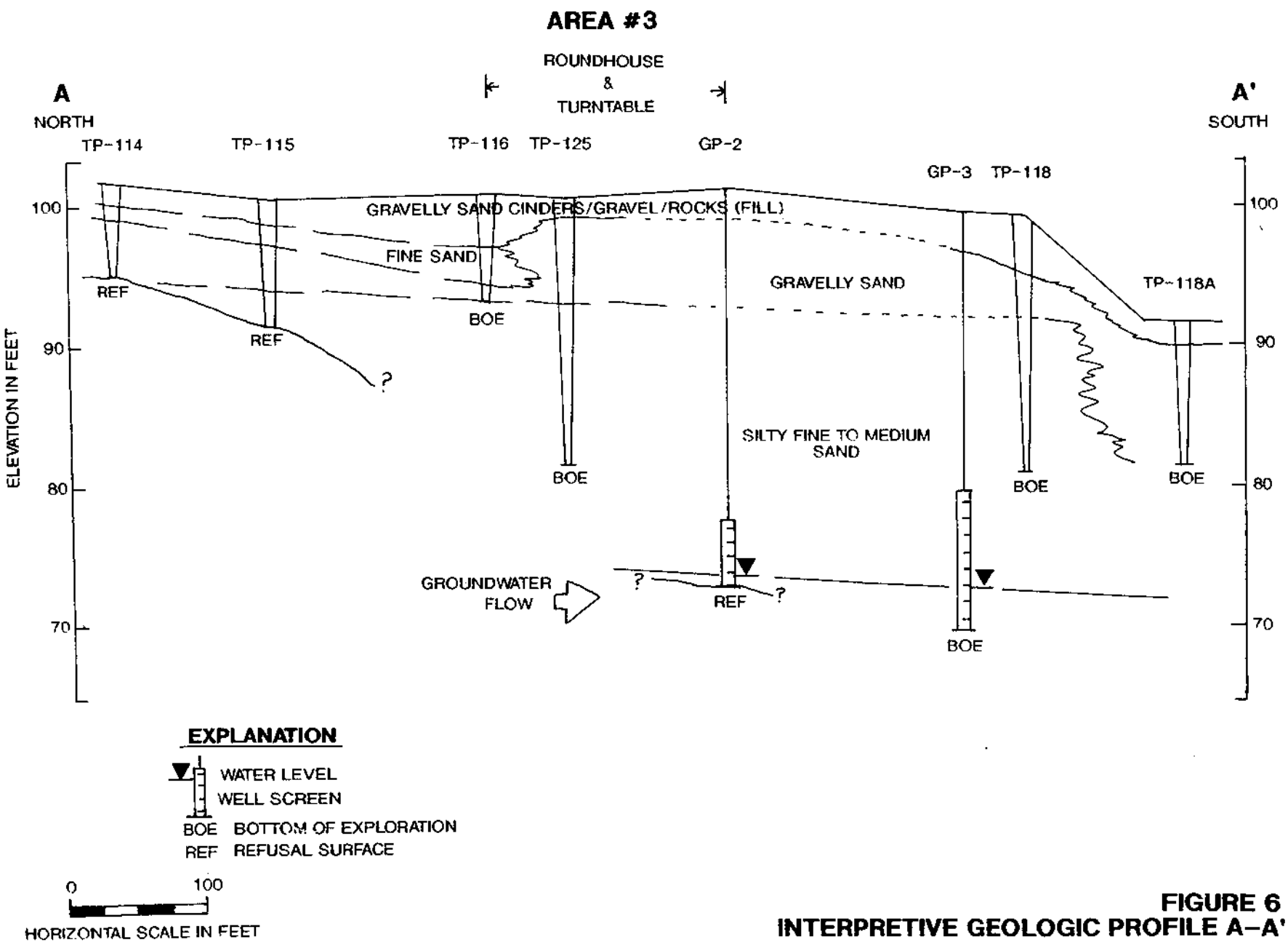


FIGURE 6
INTERPRETIVE GEOLOGIC PROFILE A–A'
ST. JOHNSBURY, VT SITE

TEWHEY ASSOCIATES

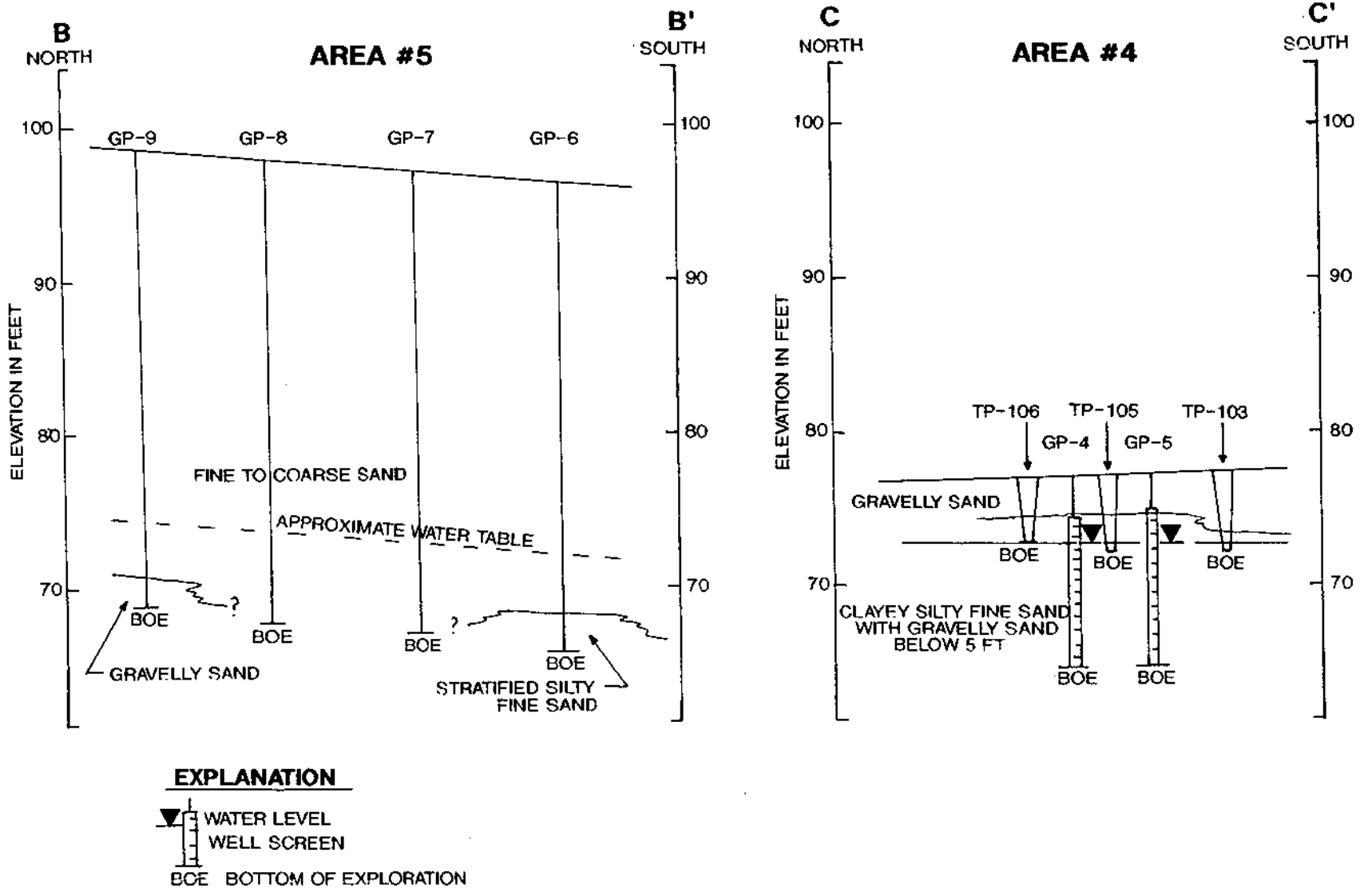


FIGURE 7
INTERPRETIVE GEOLOGIC PROFILES B–B' & C–C'
ST. JOHNSBURY, VT SITE

TEWHEY ASSOCIATES

TABLE 5
GROUNDWATER ELEVATION DATA

Well	Measuring Point Ref. Elev. (ft)	November 18, 1997 Water Depth (ft)	November 18, 1997 Water Elev. (ft)	December 4, 1997 Water Depth (ft)	December 4, 1997 Water Elev. (ft)
GP-1	103.10	22.14	81.0	22.18	80.9
GP-2	104.28	27.53	76.8	27.64	76.6
GP-3	102.74	26.89	75.8	27.02	75.7
GP-4	77.17	4.28	72.9	4.47	72.7
GP-5	77.35	4.60	72.8	4.67	72.7

Note: Reference elevations are for the top of the PVC well riser. Water elevations are given in feet above the assumed datum and are rounded to the nearest 0.1-ft.

The flow direction in Area #3 is shown in Figure 8. Groundwater is interpreted to move horizontally through the sandy soil deposits in a south-southeast direction beneath Area #3. The flow direction is consistent with the anticipated regional flow of groundwater into the valley of the Passumpsic River. GP-2 and GP-3 wells are located downgradient from the roundhouse, turntable and former fueling and maintenance operations. GP-1 is located at the upgradient edge of the central yard area. The water table slopes gently to the south-southeast at a horizontal gradient of 0.025 ft/ft. Using the low and mean hydraulic conductivity value of 2.0×10^{-3} cm/sec (5.8 ft/day) and 3.2×10^{-3} cm/sec (9.1 ft/day), an estimated 30% effective porosity of the soil and the gradient stated above, the average rate of groundwater movement through the outwash deposits was calculated to range from 180 to 280 feet per year.

Groundwater flow in Area #4 is interpreted to flow more directly to the east based on the available water levels at GP-4 and GP-5 (see Figure 9). The water table data points are insufficient to interpret a groundwater gradient across this area. However, based on a approximation of the ground surface slope and assumption that the water table generally mimics this slope, a gradient varying from 0.001 to 0.002 ft/ft was estimated for this area. Using the low and mean hydraulic conductivity value of 1.4×10^{-2} cm/sec (39.7 ft/day) and 2.2×10^{-2} cm/sec (62.4 ft/day), an estimated 30% effective porosity of the soil and the gradients stated above, the average rate of groundwater movement through the outwash deposits is calculated to range from 50 to 150 feet per year. The slight contrast in hydraulic conductivity values indicates some spatial heterogeneity is present in the outwash formation across the site. The slightly higher values in Area #4 may be due to the presence of more gravelly layers in the well screen section where the testing was performed.

4.3 RESULTS OF LABORATORY CHEMICAL ANALYSIS

The rail yard investigation included analysis of soil and groundwater for a variety of organic and inorganic compounds previously described in Sections 3.5 and 3.6. The following sections present the findings of the field and laboratory analytical data generated in this study. The data are presented in Tables 6 through 9 and the significant findings are shown on Figures 10 through 15 for the six areas of study. The results are discussed in order of each area identified in this report.

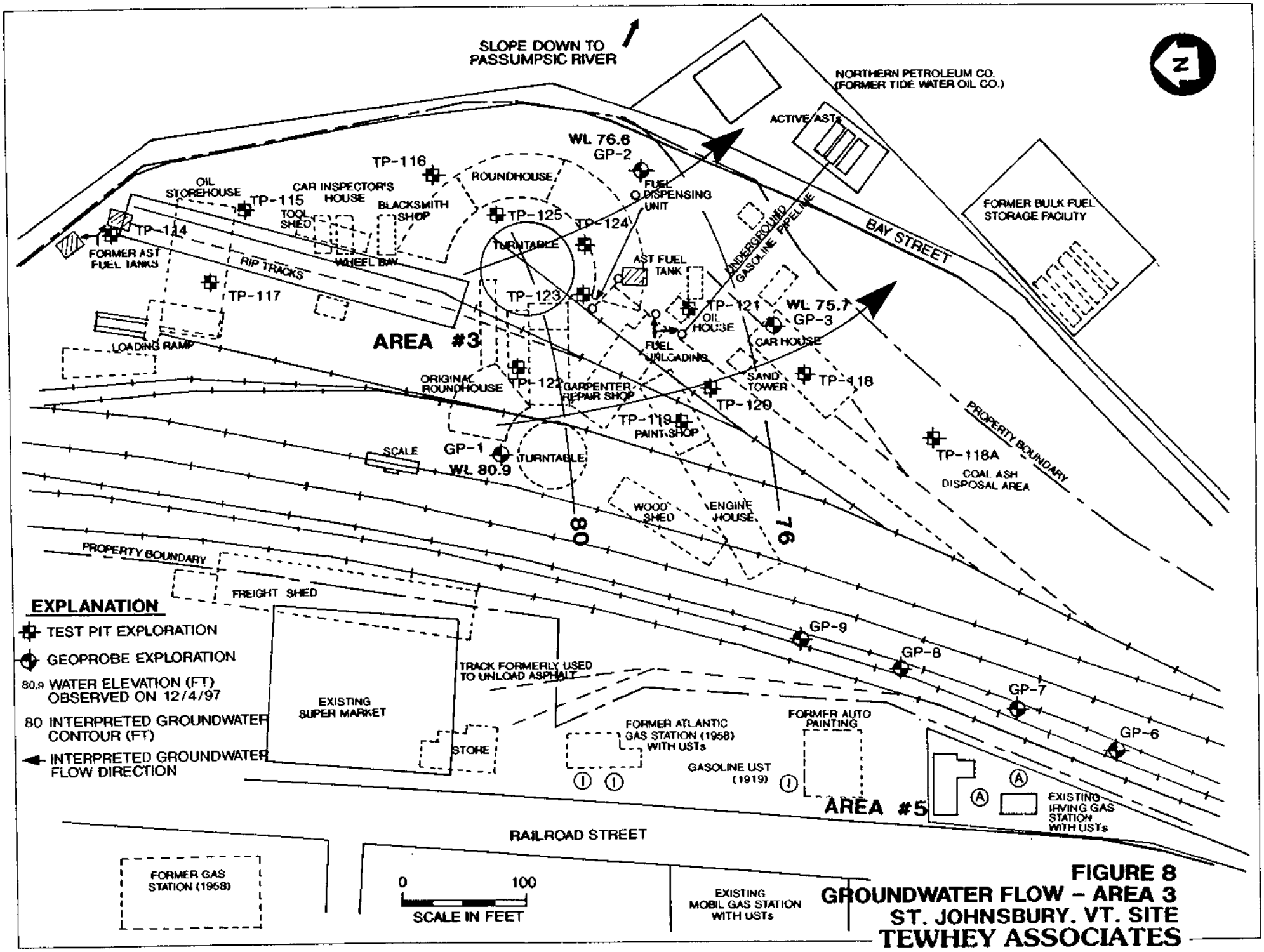
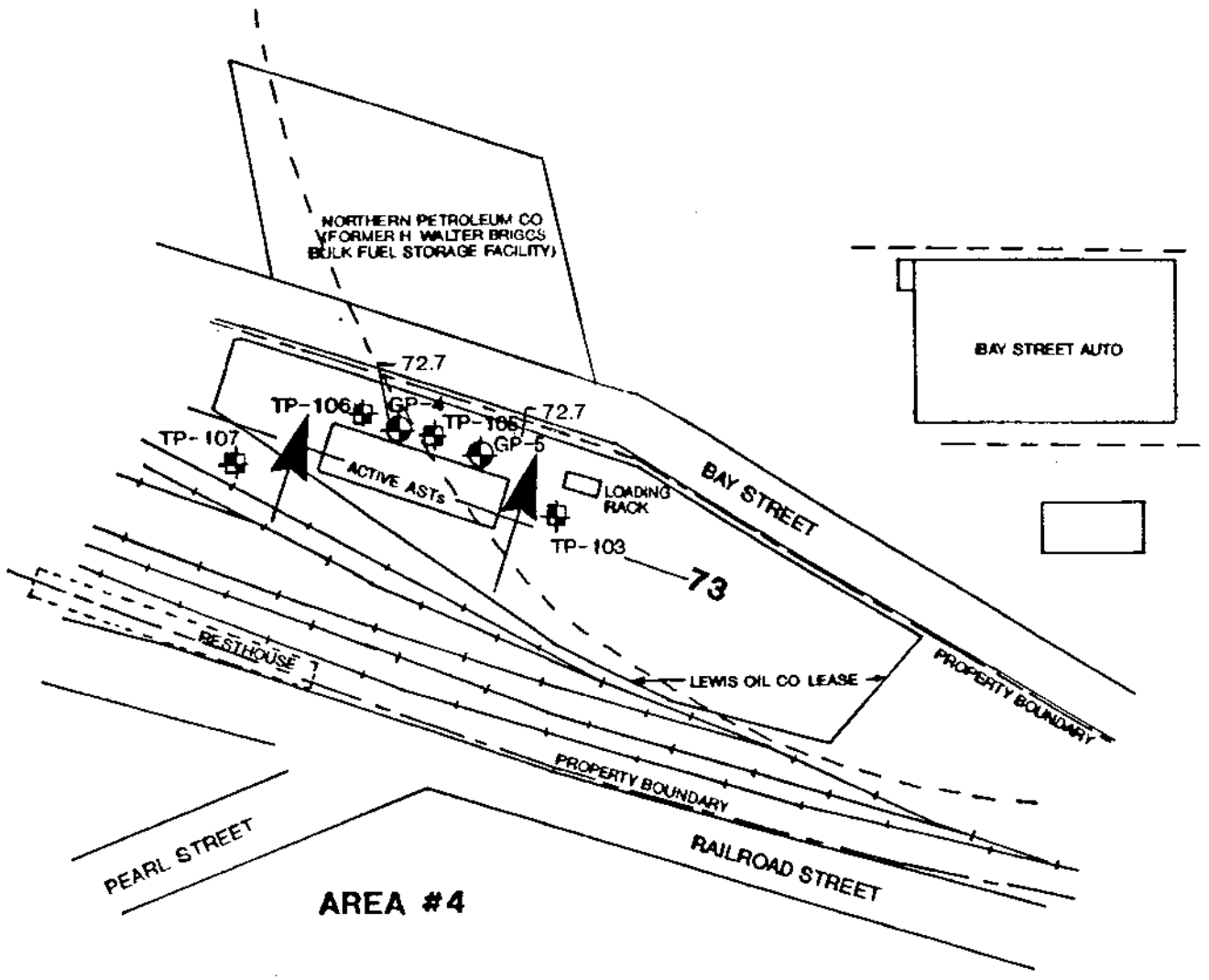


FIGURE 8
GROUNDWATER FLOW – AREA 3
ST. JOHNSBURY, VT. SITE
TEWHEY ASSOCIATES



EXPLANATION

- TEST PIT EXPLORATION
- GEOPROBE EXPLORATION

- INTERPRETED GROUNDWATER FLOW DIRECTION
- 73 INTERPRETED GROUNDWATER CONTOUR (FT)
- 72.7 WATER ELEVATION (FT) OBSERVED ON 12/4/97

0 100

SCALE IN FEET

FIGURE 9
GROUNDWATER FLOW – AREA #4
ST. JOHNSBURY,VT. SITE
TEWHEY ASSOCIATES

4.3.1 Area #1 Findings

Area #1 analytical findings are shown in Figure 10. A test pit exploration was completed adjacent to the location of the abandoned UST in order assess if petroleum residues might be present due to past operations. Test pit TP-101 was completed to a depth of 11 feet below the bottom of the UST and soil samples were collected for PID headspace measurement which were found to be low (i.e., 13.1 & 13.7 parts per million (ppm). A soil sample collected at 11 feet bgs below the UST was analyzed for TPH, BTEX and MTBE. TPH was detected at 12 mg/kg and no detections of BTEX and MTBE were reported. The PID and TPH results suggest a low level of heavier hydrocarbon residue was detected in the soil, however, no significant evidence of UST, gasoline-related contamination was found.

4.3.2 Area #2 Findings

Area #2 analytical findings are shown in Figure 10. A test pit exploration was completed generally downgradient from the former UST location in order assess if petroleum residues might be present. Test pit TP-102 was completed to a depth of 18 feet bgs. The depth was sufficiently deep to collect a soil sample from where groundwater seepage was observed in the test pit. Soil samples collected for PID headspace measurement resulted in low values ranging from 15.7 to 23.6 ppm. A soil sample collected at 18 feet bgs was analyzed for BTEX and MTBE which are the more mobile constituents of gasoline in groundwater. No detections of BTEX and MTBE were reported. Therefore, the PID and laboratory results show no evidence of gasoline-related residues at this location.

4.3.3 Area #3 and General Yard Findings

Soil Quality. Area #3 and the general yard analytical findings are shown in Figure 11 for soil quality. A total of eight soil samples were submitted for laboratory analysis. The samples ranged in depth from the ground surface to 19 feet bgs. Three samples were collected in the shallow cinder/slag fill (i.e., TP-115, TP-118A and TP-119) in order to address the nature of this material as a general yard concern. The analytical focus of these samples was to check for evidence of metals, PAHs, and PCBs.

All test pit samples were collected above the water table although the deepest samples contained moisture indicating close proximity to groundwater. Soil samples collected from the test pits resulted in PID headspace values ranging from 2.1 to 21.6 ppm. Additional soil samples collected from the Geoprobe borings resulted in low PID values ranging from 1.6 to 13.7 ppm except for one elevated reading of 200 ppm at 20-22 ft bgs at GP-3. The laboratory analytical results for various compounds are described in the following paragraphs.

Volatile Compounds: TPH was detected in soil at 95 mg/kg at TP-115 (2-3 ft). Samples from TP-118 (15 ft) and TP-119 (13 ft) were reported with non-detect results for TPH. Samples analyzed for GRO at TP-118 (15 ft) and TP-120 (7 ft) were reported with 5.9 mg/kg and 5.4 mg/kg, respectively. Two samples were analyzed for VOCs. At TP-120 (12 ft), 0.001 mg/kg of styrene was the only compound detected. At TP-125 (19 ft), 0.002 mg/kg of styrene and 0.0009J mg/kg of m,p-xylenes were detected.

TABLE 6
LABORATORY ANALYSES OF SOIL

		PARAMETER						
		TPH	GRO	Benzene	Ethylbenzene	Toluene	Xylenes	MTBE
LOCATION	DEPTH (ft)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
TP-101 (1)	11	12	NA	ND	ND	ND	ND	ND
TP-102 (2)	18	NA	NA	ND	ND	ND	ND	ND
TP-103 (4)	5	12000	NA	NA	NA	NA	NA	NA
TP-105 (4)	5	6500	2200	NA	NA	NA	NA	NA
TP-106 (4)	3	5500	1800	NA	NA	NA	NA	NA
TP-107 (4)	5	16	NA	NA	NA	NA	NA	NA
TP-115 (3)	2-3	95	NA	NA	NA	NA	NA	NA
TP-118 (3)	15	ND	5.9	NA	NA	NA	NA	NA
TP-119 (3)	13	ND	NA	NA	NA	NA	NA	NA
TP-120 (3)	7	NA	5.4	NA	NA	NA	NA	NA
SOIL PILE (3)	5	110	16	NA	NA	NA	NA	NA
TSS-1 (3)	Surface	6400	NA	NA	NA	NA	NA	NA
DUP#1 (4)	-	13000	NA	NA	NA	NA	NA	NA
DUP#2 (4)	-	NA	880	NA	NA	NA	NA	NA
GP-6 (5)	28-30	NA	NA	ND	ND	ND	ND	0.0019
GP-7 (5)	28-30	NA	NA	ND	ND	ND	ND	0.017
GP-8 (5)	24-26	NA	NA	ND	ND	ND	ND	ND

Notes:
1. Test pit samples collected on 10/28-29/97.
2. Geoprobe samples collected on 11/19/97.
3. Dup#1 is a duplicate sample of TP-103 for DRO analysis.
4. Dup#2 is a duplicate sample of TP-106 for GRO analysis.
5. ND indicates Not Detected for this parameter above the PQL.
6. NA indicates Not Analyzed for this parameter.
7. (#) = Exploration Area Designation.

TABLE 7
LABORATORY ANALYSES OF SOIL

LOCATION	TP-120 (3)	TP-125 (3)	GP-8 (5)
DEPTH	(12 ft.)	(19 ft.)	(28-30 ft.)
PARAMETER			
Volatile Organics (mg/kg)			
Methylene Chloride	0.030B	0.038B	0.003B
Ethyl Benzene	ND	ND	0.0007J
m,p-Xylene	ND	0.0009J	ND
Methyltertbutyl Ether	ND	ND	ND
Styrene	0.001	0.002	ND
Acetone	ND	0.006JB	ND
Napthalene	ND	ND	0.007

Notes:
1. TP-120 and TP-125 samples collected on 10/28/97 and GP-8 sample collected on 11/19/97.
2. ND indicates Not Detected for this parameter above the PQL.
3. "J" suffix denotes an estimated value less than the laboratory's PQL.
4. "B" suffix denotes an analyte was detected in the laboratory method blank analyzed concurrently with the sample. Methylene chloride and acetone were detected in the method blank with respect to TP-125 (19') at 0.001 mg/kg and 0.003J mg/kg, respectively; for TP-120 and GP-8, the method blank was 0.001 mg/kg for methylene chloride.
5. (#) = Exploration Area Designation

TABLE 8
LABORATORY ANALYSES OF SOIL

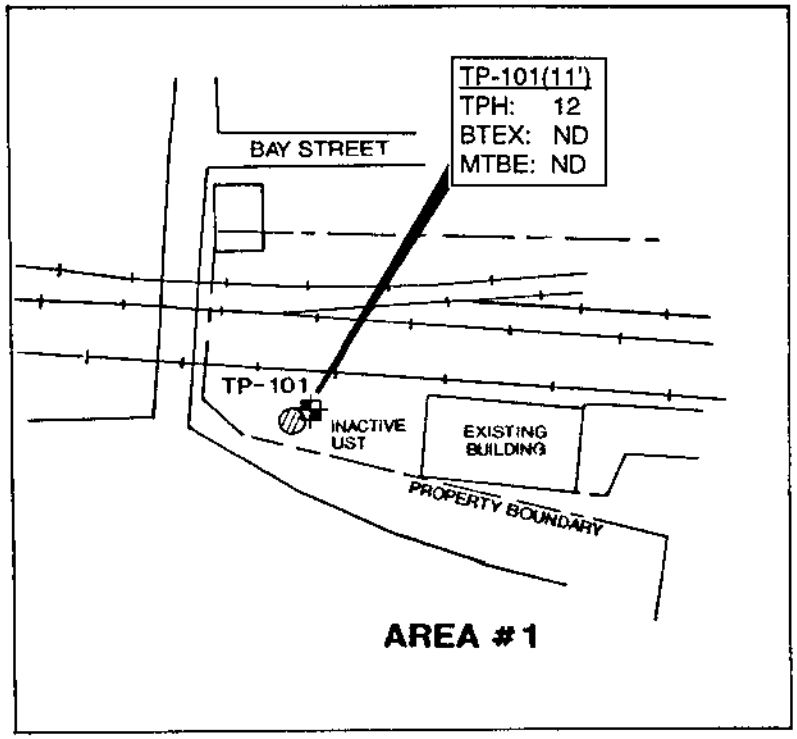
LOCATION / DEPTH / PARAMETER	TP-119 (3) (3 inches)	TP-115 (3) (2-3 ft.)	TP-118A (3) (1 ft.)	TSS-1 (3) (surface)	BKGD (2) (4 inches)
Semivolatile Organics (mg/kg)				NA	NA
Napthalene	0.320J	ND	0.240J		
2-Methylnapthalene	0.550	ND	0.340J		
Acenapthalene	0.230J	ND	0.190J		
Dibenzofuran	0.180J	NA	NA		
Phenanthrene	0.540	0.890	1.3		
Anthracene	ND	0.200J	0.300J		
Fluoranthene	0.700	1.0	2.1		
Pyrene	1.3	1.0	2.7		
Benzo(a)anthracene	0.470	0.500	0.910		
Chrysene	0.550	0.620	1.2		
Benzo(b)fluoranthene	0.810	0.500	0.950		
Benzo(k)fluoranthene	0.630	0.390	0.840		
Benzo(a)pyrene	0.540	0.420	0.820		
Indeno(1,2,3-cd)pyrene	0.540	0.340J	0.840		
Benzo(g,h,i)perylene	0.270J	ND	0.470		
Total SVOCs	7.630	5.860	13.2		
PCBs (mg/kg)		NA	NA		NA
PCB-1260	0.043			ND	
Total Metals (mg/kg)				NA	
Arsenic	9.29	11.4	31.9		1.6
Barium	71.7	81.6	106		41.8
Cadmium	<1.00	<1.00	<1.00		<1.05
Chromium	35.1	13.6	14.7		22
Lead	274	399	246		13.3
Mercury	0.749	0.124	0.568		<0.0432
Selenium	1.0	<1.0	3.1		<1.0
Silver	<1.5	<1.5	<1.5		<1.6

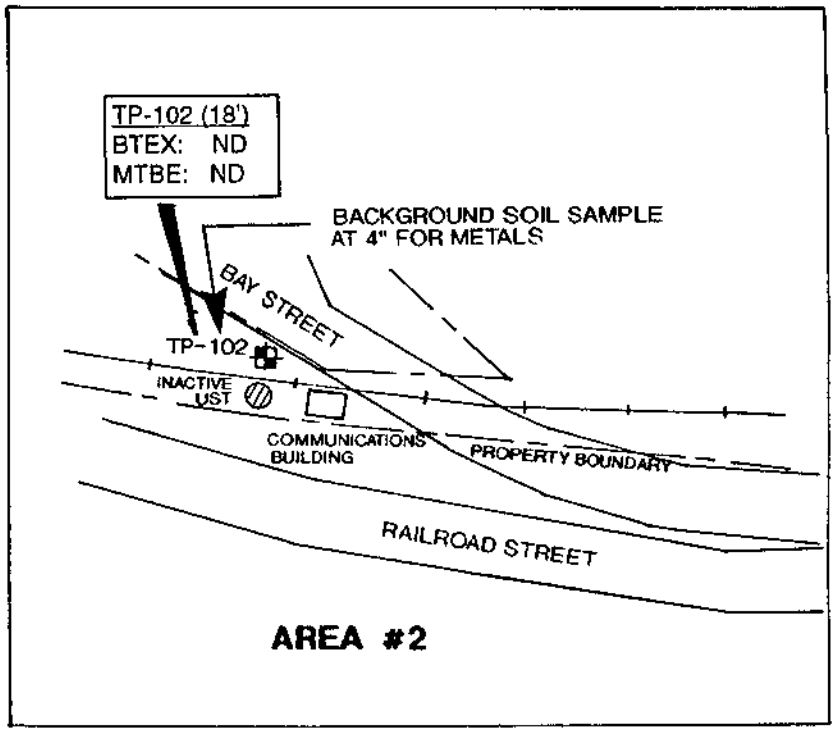
Notes:
1. Samples collected on 10/28-29/97.
2. ND indicates Not Detected for this parameter above the PQL.
3. NA indicates Not Analyzed for this parameter.
4. "J" suffix denotes an estimated value less than the laboratory's PQL.
5. Samples TP-115 and TP-118A were analyzed for PAHs and TP-119 was analyzed for TCL SVOC.
6. BKGD = background soil sample collected for the site.
7. (#) = Exploration Area Designation.

TABLE 9
LABORATORY ANALYSES OF GROUNDWATER

LOCATION	GP-1 (3)	GP-2 (3)	GP-3 (3)	GP-4 (4)	GP-5 (4)	DUP#1 (3)	DUP#2 (4)
PARAMETER							
Volatile Organics (mg/L)				NA	NA		NA
Methylene Chloride	0.004B	0.003B	0.003B			0.004B	
1,2-Dichloroethane	0.003	ND	ND			ND	
Chloroform	ND	0.007	ND			ND	
m,p-Xylene	ND	ND	0.003			0.005	
o-Xylene	ND	ND	0.005			0.007	
Methyltertbutyl Ether	0.290	ND	ND			ND	
1,3,5-Trimethylbenzene	ND	ND	0.012			0.013	
1,2,4-Trimethylbenzene	ND	ND	0.015			0.016	
sec-Butylbenzene	ND	ND	0.002			ND	
4-Isopropyltoluene	ND	ND	0.008			0.008	
n-Butylbenzene	ND	ND	0.003			ND	
Ethylbenzene	ND	ND	ND			0.0007J	
Isopropylbenzene	ND	ND	ND			0.001	
1,3-Dichlorobenzene	ND	ND	ND			0.0009J	
Napthalene	ND	ND	ND			0.011B	
Hexachlorobutadiene	ND	ND	ND			0.002B	
GRO (mg/L)	0.100	0.015	0.073	4.1	0.350	NA	NA
TPH (mg/L)	0.140	0.150	2.3	4.0	2.4	NA	4.2
PAHs (mg/L)	ND	ND	ND	NA	NA	NA	NA
Metals (mg/L)				NA	NA	NA	NA
Arsenic	<0.008	<0.008	<0.008				
Barium	0.248	0.0761	0.102				
Cadmium	<0.0100	<0.0100	<0.0100				
Chromium	<0.0150	<0.0150	<0.0150				
Lead	<0.005	<0.005	<0.005				
Mercury	<0.0002	<0.0002	<0.0002				
Selenium	<0.010	<0.010	<0.010				
Silver	<0.015	<0.015	<0.015				

Notes:
1. Samples collected on 12/4/97.
2. Trip Blank sample reported with methylene chloride at 0.011B mg/L, napthalene at 0.0009BJ mg/L and acetone at 0.003J mg/L.
3. ND indicates Not Detected for this parameter above the PQL.
4. NA indicates Not Analyzed for this parameter.
5. "J" suffix denotes an estimated value less than the laboratory's PQL.
6. "B" suffix denotes an analyte was detected in the laboratory method blank analyzed concurrently with the sample. Methylene chloride, hexachlorobutadiene and napthalene were detected in the method blank at 0.003, 0.0008J and 0.001 mg/l, respectively.
7. Dup#1 is a duplicate sample of GP-3 for VOA analysis.
8. Dup#2 is a duplicate sample of GP-4 for TPH analysis.
9. GP-1 collected as unfiltered = total metals analyses; GP-2 & GP-3 were filtered = dissolved metals analyses.
10. (#) = Exploration Area Designation.





EXPLANATION

TEST PIT EXPLORATION

TPH=TOTAL PETROLEUM HYDROCARBONS
GRO=GASOLINE RANGE ORGANICS
BTEX=BENZENE,TOLUENE,ETHYLBENZENE,XYLENES
MTBE=METHYLTERTBUTYL ETHER
ANALYTICAL RESULTS IN MG/KG

0 100
SCALE IN FEET

FIGURE 10
SOIL ANALYSES – AREAS #1 & #2
ST. JOHNSBURY,VT. SITE
TEWHEY ASSOCIATES

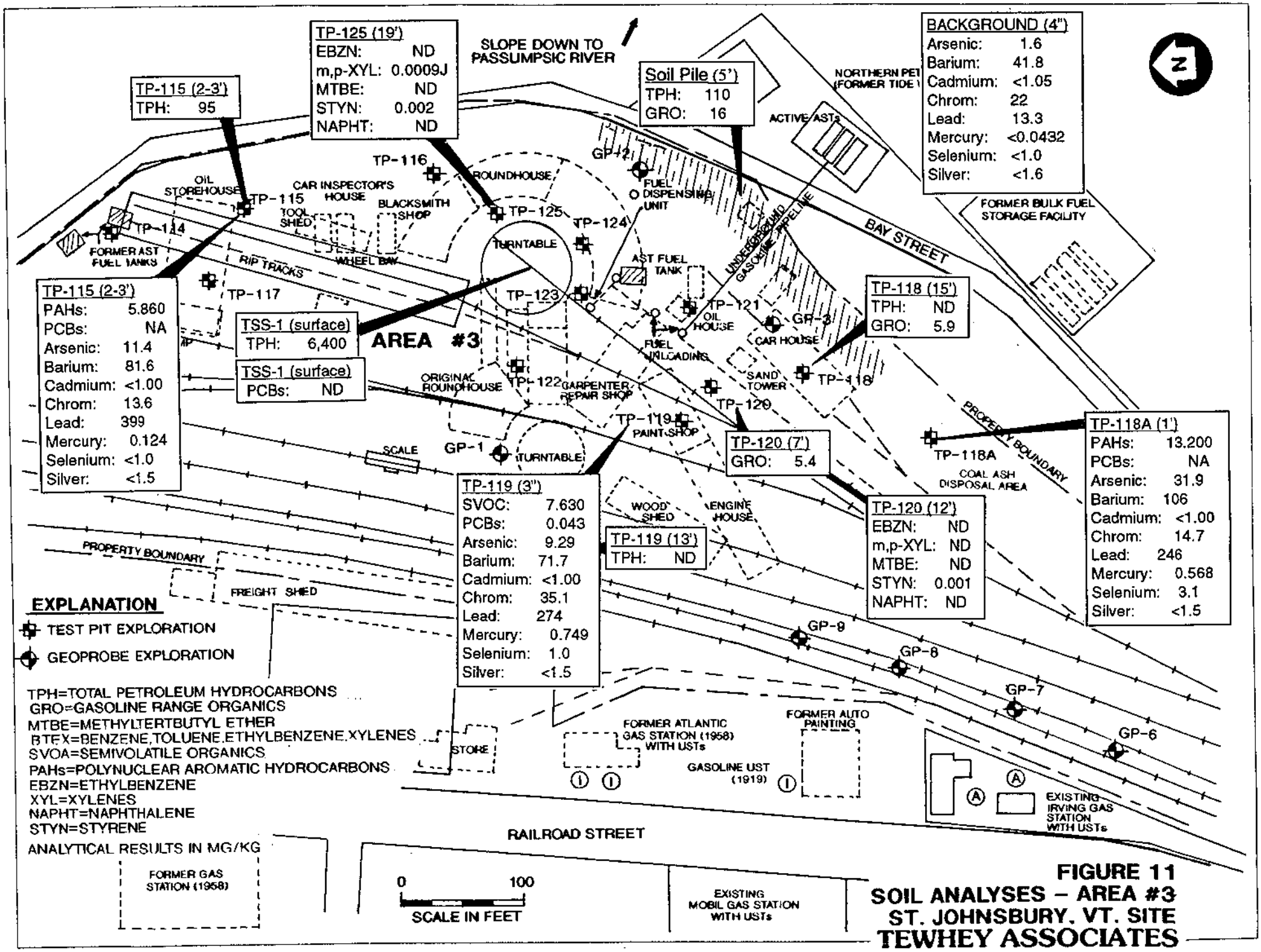


FIGURE 11
SOIL ANALYSES – AREA #3
ST. JOHNSBURY, VT. SITE
TEWHEY ASSOCIATES

Two additional soil samples were collected in Area #3 to evaluate soil piles and an area of staining observed in the bottom of the active turntable. The soil sample collected at 5 ft at the bottom of the pile was found to contain TPH at 110 mg/kg and GRO at 16 mg/kg. The PID headspace reading on soil collected with this sample was 10.2 ppm. The surface soil sample TSS-1 collected in the turntable bottom was found to contain TPH at 6,400 mg/kg.

Semivolatile Compounds: A sample collected at TP-119 (3-inches) was analyzed for Target Compound List (TCL) SVOC. The detection of 14 compounds resulted in a total SVOC value of 7.630 mg/kg. The detected compounds included napthalene, 2-methylnapthalene, acenapthalene, dibenzofuran, phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene and benzo(g,h,i)perylene. The individual compound concentrations ranged from 0.180J mg/kg of dibenzofuran to 1.3 mg/kg of pyrene. The most sensitive compound detected was benzo(a)pyrene at 0.540 mg/kg. The presence of the SVOC compounds may be related to the cinder/slag fill material in which the sample was collected or to the treated railroad ties present on the site. Two additional cinder/slag samples were collected for PAH analysis which tests for a set of compounds similar to the SVOC analysis. At TP-115 (2-3 ft), the total PAH detections were reported at 5.860 mg/kg. At TP-118A (1 ft), the total PAH detections were reported at 13.2 mg/kg.
The PAH compounds detected in these two samples were similar to those listed above. Benzo(a)pyrene was reported at values of 0.420 mg/kg at TP-115 and 0.820 mg/kg TP-118A.

PCBs: Two soil samples were collected in Area #3 for PCB analysis. One sample was collected at TP-119 at a depth of 3-inches in cinder/slag fill in the Paint Shop location. PCB-1260 was detected at 0.043 mg/kg in this sample. A second analysis completed on the surface stained soil at TSS-1 was reported as non-detected for PCBs.

Metals: Soil samples were collected in the cinder/slag fill at TP-115 (2-3 ft), TP-118A (1 ft), and TP-119 (3-inches) for analysis of eight heavy metals. A fourth background sample was collected from the southern portion of the rail yard for general comparison. The results show Lead with the highest detections ranging from 246 to 399 mg/kg in comparison to 13.3 mg/kg in the background sample. Mercury was elevated from 0.124 to 0.749 mg/kg compared to a background of <0.0432 mg/kg. Arsenic was elevated from 9.29 to 31.9 mg/kg compared to a background of 1.6 mg/kg. Barium was somewhat elevated from 71.7 to 106 mg/kg compared to a background of 41.8 mg/kg. Chromium was slightly elevated from 13.6 to 35.1 mg/kg compared to a background of 22 mg/kg.

Groundwater Quality. Area #3 analytical findings are shown in Figure 12 for groundwater quality. Samples collected at GP-1, GP-2 and GP-3 were analyzed for VOC, GRO, TPH, PAHs and metals. The findings are discussed in the following paragraphs.

Volatile Compounds: The VOC detections at GP-1 included 1,2-dichloroethane at 0.003 mg/L and 0.290 mg/L of MTBE. The MTBE suggests the presence of a relatively "fresh" source of gasoline residue in groundwater. Chloroform was reported at GP-2 at 0.007 mg/L.

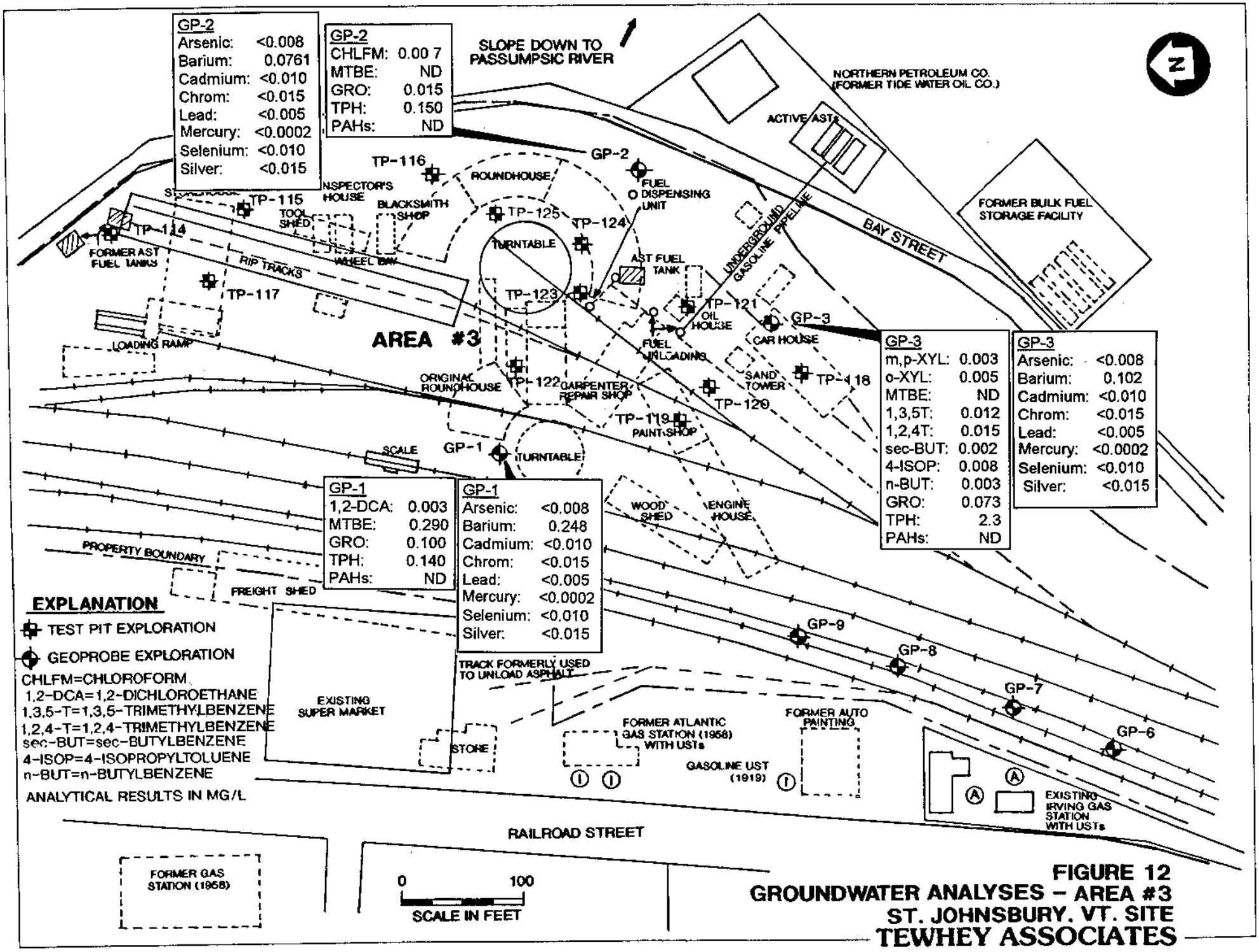


FIGURE 12
GROUNDWATER ANALYSES – AREA #3
ST. JOHNSBURY, VT. SITE
TEWHEY ASSOCIATES

GP-3 was reported with several petroleum-related constituents. These included m,p-xylene (0.003 mg/L), o-xylene (0.005 mg/L), 1,3,5-trimethylbenzene (0.012 mg/L), 1,2,4-trimethylbenzene (0.015 mg/L), sec-butylbenzene (0.002 mg/L), 4-isopropyltoluene (0.008 mg/L) and n-butylbenzene (0.003 mg/L). The low level and nature of these compounds suggests a "weathered" source of gasoline residue in groundwater and is consistent with the low GRO detections reported in nearby test pit soil samples at TP-118 and TP-120.

Both GRO and TPH analyses show further indications of the presence of petroleum residues in the vicinity of the Geoprobe wells. GRO was reported at 0.100 mg/L at GP-1, 0.015 mg/L at GP-2 and 0.073 mg/L at GP-3. TPH detections were 0.140, 0.150 and 2.3 mg/L, respectively, at these three locations. The relative magnitude of the GRO and TPH values suggest less weathering at GP-1 and heavier petroleum residues more resistant to weathering are present at GP-3. These data are consistent with the VOC results described previously.

PAHs: The PAH analysis at the three Geoprobe wells in Area #3 were reported with no detections.

Metals: Seven of the eight metals analyses on groundwater collected from these wells were reported with no detections. Barium was reported above the detection limits at values of 0.248 mg/L, 0.0761 mg/L and 0.102 mg/L for GP-1, GP-2 and GP-3, respectively.

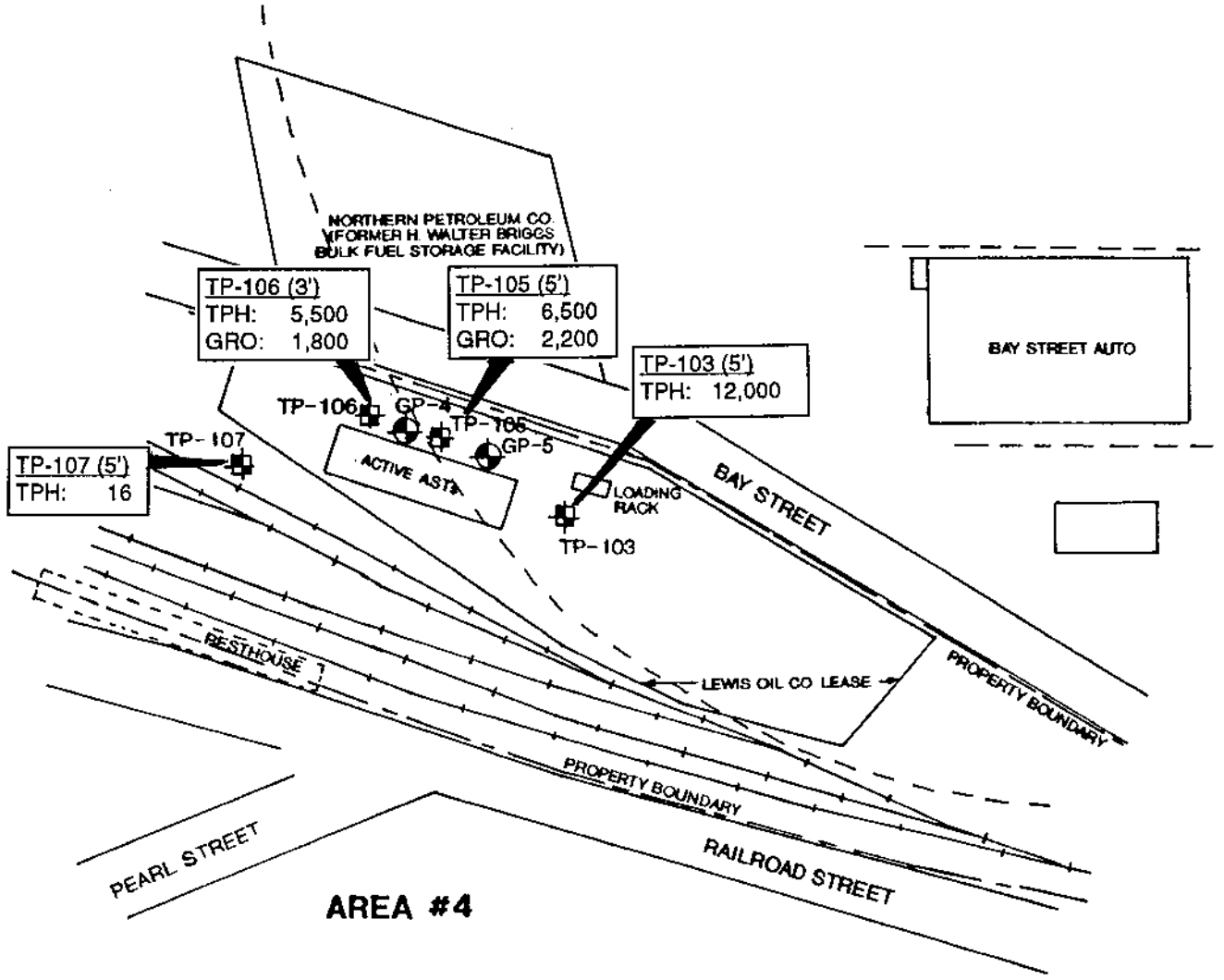
4.3.4 Area #4 Findings

Soil Quality. Area #4 analytical findings are shown in Figure 13 for soil quality. A total of four soil samples were submitted for laboratory analysis. The samples ranged in depth from 3 to 5 feet bgs. Soil samples collected from the test pits resulted in elevated PID headspace values ranging from 202 to 1,730 ppm. The laboratory analytical results for GRO and TPH analyses are described below.

GRO/TPH: In the three test pits completed in the Lewis Oil yard operations area, significant petroleum detections were reported. GRO was found to range from 1,800 to 2,200 mg/kg and TPH ranged from 5,500 to 12,000 mg/kg. One test pit, TP-107, was completed on the hillside behind the bulk storage tanks. This test pit was dug in the location of a former rail car, off-loading pipeline that lead to the bulk tanks located below the rail line. A soil sample collected at 5 feet resulted in a TPH of 16 mg/kg. The PID headspace readings on soil samples collected from this test pit were low ranging from 5.1 to 12.4 ppm.

Groundwater Quality. Area #4 analytical findings are shown in Figure 14 for groundwater quality. Two groundwater samples (i.e., GP-4 and GP-5) were submitted for laboratory analysis. The laboratory analytical results for GRO and TPH analyses are described below.

GRO/TPH: Significant petroleum detections were also reported in groundwater for the Lewis Oil leased parcel. GRO was found to range from 0.350 to 4.1 mg/L and TPH ranged from 2.4 to 4.0 mg/L. Free product was not found in these wells although a thin film of petroleum-type residue was noted on the surface of the water at the time of sampling.



EXPLANATION

TEST PIT EXPLORATION

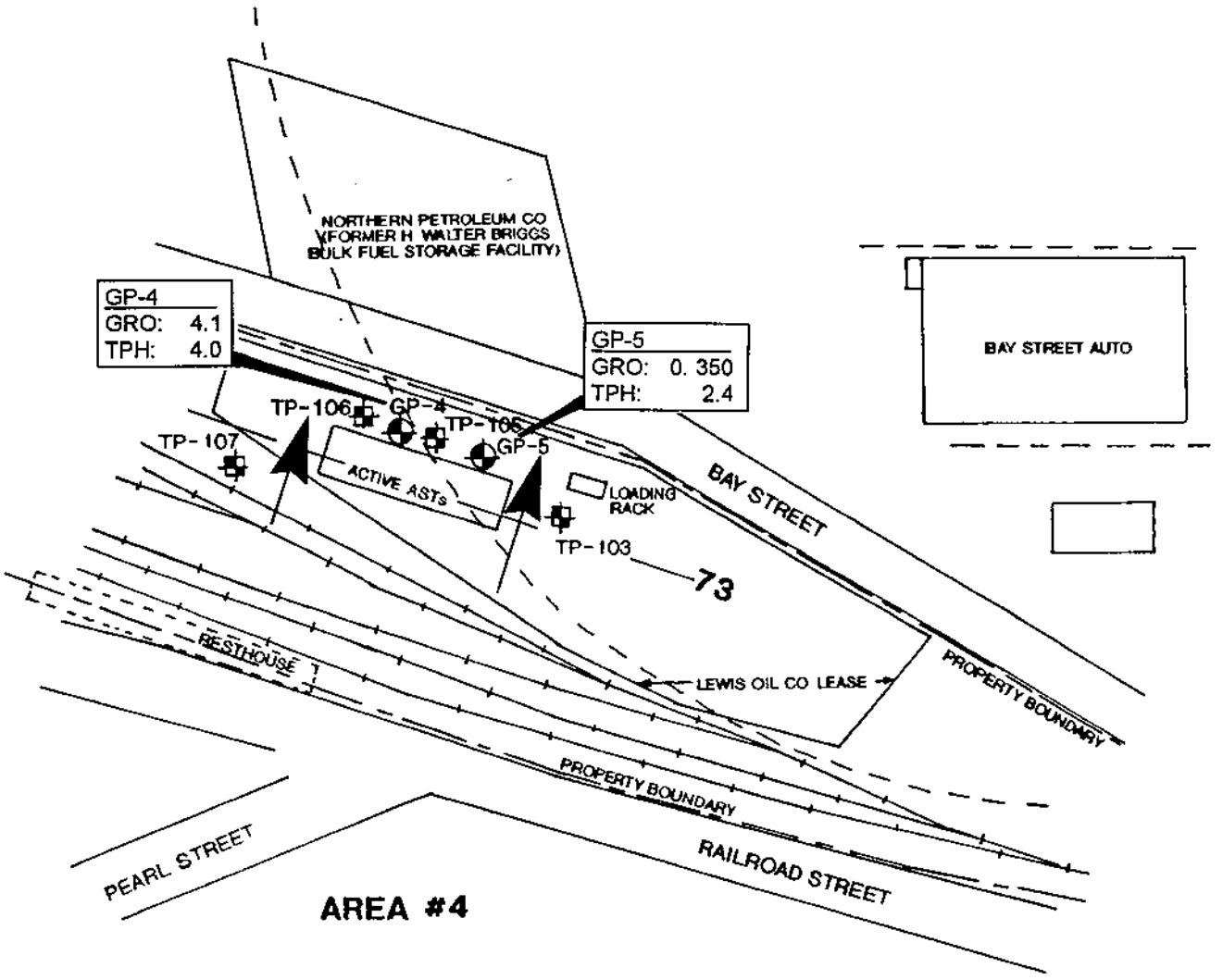
GEOPROBE EXPLORATION

TPH=TOTAL PETROLEUM HYDROCARBONS
GRO=GASOLINE RANGE ORGANICS
ANALYTICAL RESULTS IN MG/KG

0 100

SCALE IN FEET

FIGURE 13
SOIL ANALYSES – AREA #4
ST. JOHNSBURY, VT. SITE
TEWHEY ASSOCIATES



EXPLANATION

TEST PIT EXPLORATION

GEOPROBE EXPLORATION

TPH=TOTAL PETROLEUM HYDROCARBONS
GRO=GASOLINE RANGE ORGANICS ANALYTICAL RESULTS IN MG/L

INTERPRETED GROUNDWATER FLOW DIRECTION

73 INTERPRETED GROUNDWATER CONTOUR (FT)

72.7 WATER ELEVATION (FT) OBSERVED ON 12/4/97

0 100

SCALE IN FEET

FIGURE 14
GROUNDWATER ANALYSES – AREA #4
ST. JOHNSBURY,VT. SITE
TEWHEY ASSOCIATES

4.3.5 Area #5 Findings

Area #5 analytical findings are shown in Figure 15 for soil quality. A total of three soil samples were submitted for laboratory analysis. The samples ranged in depth from 24 to 30 feet bgs. Soil samples collected from the Geoprobe borings resulted in low PID headspace values ranging from 0.9 to 8.4 ppm. The laboratory analytical results for BTEX, MTBE and VOC analyses are described below.

BTEX/MTBE: BTEX and MTBE were analyzed in three soil samples collected below the water table in GP-6, GP-7 and GP-8. No detections of BTEX were reported. Trace detections of MTBE were reported at 0.0019 mg/kg at GP-6 and 0.017 mg/kg at GP-7.

Volatile Compounds: No evidence of petroleum was found at GP-8 (24-26 ft). A deeper sample at 28-30 feet bgs was submitted for VOC analysis and trace levels of ethylbenzene (0.0007J mg/kg) and napthalene (0.007 mg/kg) were detected.

4.3.6 Quality Control Samples

Quality control blind duplicate soil samples were collected from TP-103 (5 ft) as Dup #1 for TPH analysis and from TP-106 (3 ft) as Dup #2 for GRO analysis. Dup #1 TPH results compared well at 13,000 mg/kg to 12,000 mg/kg in the identified test pit sample. Dup #2 GRO results compared less well at 880 mg/kg to 1,800 mg/kg in the identified test pit sample. The difference is likely related to the more volatile nature of GRO and lower likelihood of being as uniformly distributed in the soil as the heavier weight TPH material.

Quality control blind duplicate groundwater samples were collected from GP-3 as Dup #1 for VOC analysis and from GP-4 as Dup #2 for TPH analysis. The duplicate analyses for both samples compare reasonably well to the identified groundwater sample.

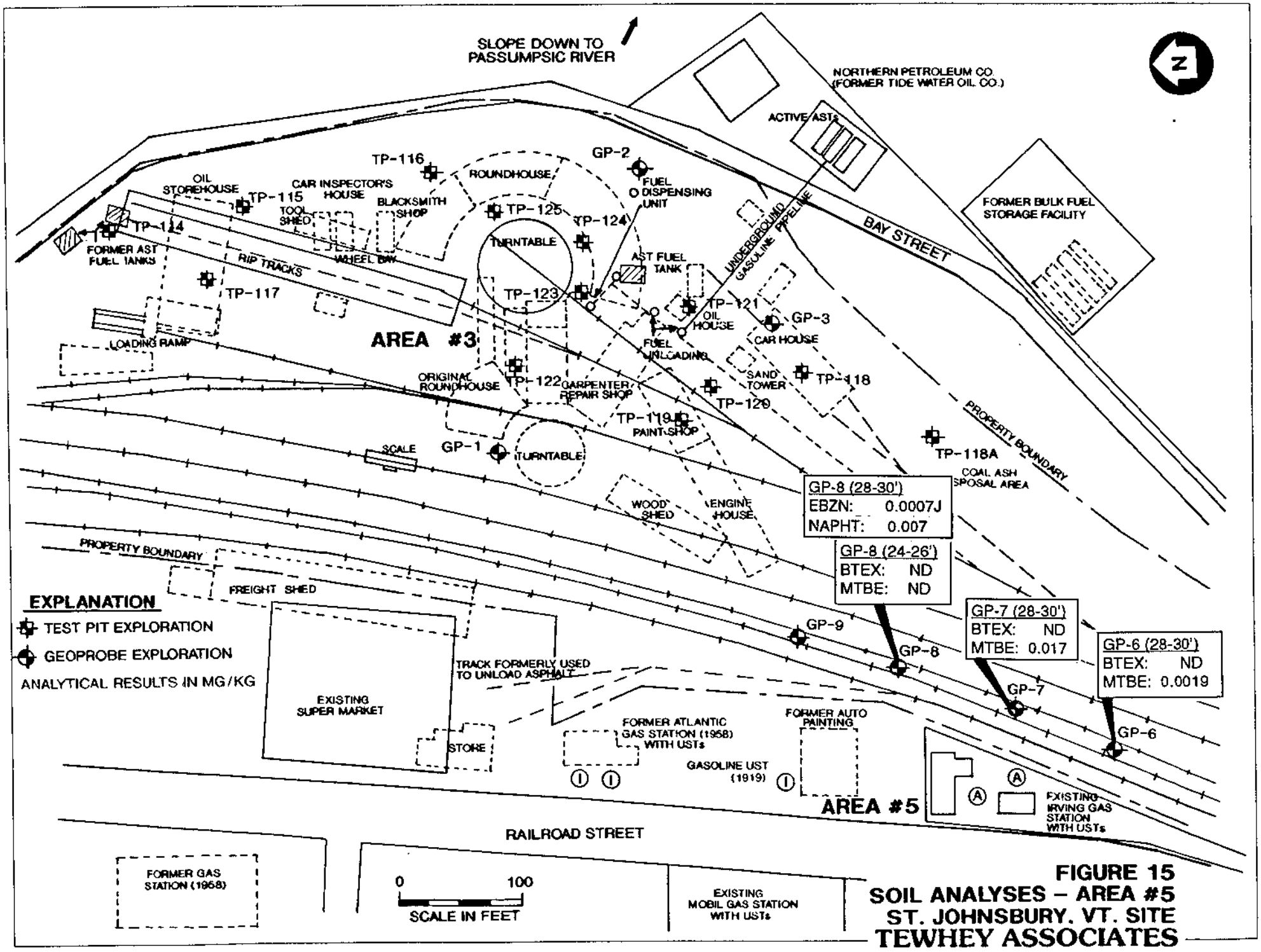


FIGURE 15
SOIL ANALYSES – AREA #5
ST. JOHNSBURY, VT. SITE
TEWHEY ASSOCIATES

5.0 REGULATORY OVERVIEW

The St. Johnsbury rail yard investigation provides a characterization of the soil and groundwater quality at the site. The principal findings show petroleum-related compounds consistent with the former railroad operations. As part of the site investigation, Tewhey Associates considered the VtDEC regulatory requirements for assessing the significance and possible remediation of environmental conditions which may pose a concern to nearby receptors. The regulatory framework and guidance levels that apply to the conditions found at and in the vicinity of the rail yard area are described below. With respect to the soil environment, the site has been in railroad use for many years and is likely to continue as such into the future. Given this type of industrial use, pristine soil quality is not likely to exist at present. Therefore, an assessment of the significance of the study findings is presented in the context of an ongoing rail yard operation. The range of values for individual parameters detected and the standards or guidance criteria that were used to evaluate the significance of the investigative findings are also discussed.

5.1 Assessment Framework

Soil Quality. The assessment of the significance of soil quality impacts at the site was based on the following regulatory standards and guidance information.

1. *Agency Guidelines For Petroleum Contaminated Soil and Debris*, Vermont State Agency of Natural Resources, Department of Environmental Conservation, Waste Management Division, Effective Date August 1996.
2. *Region III Risk-Based Correction Action Levels*, U.S. EPA Region III.
3. Telephone Discussion, January 1998, with John Smeltzer of the Vermont Department of Environmental Conservation regarding guidance values for TPH laboratory detections in soil.
4. Dragun, James, Ph.D, 1988, *The Soil Chemistry of Hazardous Materials*, The Hazardous Materials Control Research Institute, Silver Spring, Maryland, p. 77 (native soil concentrations).

Groundwater Quality. The assessment of the significance of groundwater quality impacts at the site was based on the following regulatory standard, however, this standard is applicable for groundwater resources that are active or potential sources for drinking water supplies. In areas of urban development and long-term industrial activity where groundwater is not being used locally such as the St. Johnsbury rail yard, this standard may not apply since there are no receptors at risk.

1. *Chapter 12 Groundwater Protection Rule and Strategy*, State of Vermont, Agency of Natural Resources, Department of Environmental Conservation, Rule Number 97-P14, Effective Date November 15, 1997.

5.2 Summary of Assessment Criteria

Using the assessment framework described above, the following Tables 10, 11, 12 provide (1) the list of compounds detected in the rail yard investigation, and (2) the corresponding regulatory or guidance values identified for assessing the significance of the analytical findings developed for the site. A

discussion of the detections that approach or exceed the referenced soil and groundwater criteria is provided in the following sections for the six study areas.

TABLE 10
ASSESSMENT CRITERIA FOR SOIL

VtDEC SOIL GUIDELINE THRESHOLD PID (ppm)		PRODUCT	VtDEC CORRECTIVE ACTION GUIDANCE FOR REMEDIATION
I.	< 20 < 10	Gasoline Fuel Oils	Backfill on-site providing no sensitive receptors immediately threatened by the soil.
II.	20-100 10-40	Gasoline Fuel Oils	Treat soil either on- or off-site, or backfill if a full site investigation will be performed.
III.	100-1,000 40-400	Gasoline Fuel Oils	Treat soil on-site. Encouraged to backfill to minimize vapor release. Full site investigation is required.
IV.	> 1,000 > 400	Gasoline Fuel Oils	Treat soil in-situ. Encouraged to backfill to minimize vapor release. Full site investigation is required. If excavated for removal, treat as hazardous waste.

Note: 1. *Agency Guidelines For Petroleum Contaminated Soil and Debris*, Vermont State Agency of Natural Resources, Department of Environmental Conservation, Waste Management Division, Effective Date August 1996.
2. Discussions with VtDEC indicate that < 200 ppm TPH in soil is acceptable for a residential setting and < 1,000 ppm TPH in soil is acceptable for an industrial setting.

TABLE 11
POTENTIAL ASSESSMENT CRITERIA FOR SOIL

PARAMETER	SITE RANGE Soil (mg/kg)	EPA REGION III IND. SOIL (mg/kg)	DRAGUN -SOIL (mg/kg)
Volatile Organics			
Methylene Chloride	0.003B-0.038B	760	--
Ethylbenzene	0.0007J	200,000	--
m,p-Xylene	0.0009J	1,000,000	--
Methyltertbutyl Ether	0.0019-0.017	10,000	--
Styrene	0.001-0.002	410,000	--
Acetone	0.006JB	200,000	--
Napthalene	0.007	82,000	--
Semivolatile Organics			
Napthalene	0.240J-0.320J	82,000	--
2-Methylnapthalene	0.340J-0.550	NA	--
Acenapthalene	0.190J-0.230J	120,000	--
Dibenzofuran	0.180J	8,200	--
Phenanthrene	0.540-1.3	NA	--
Anthracene	0.200J-0.300J	610,000	--
Fluoranthene	0.700-2.1	82,000	--
Pyrene	1.0-2.7	61,000	--
Benzo(a)anthracene	0.470-0.910	7.8	--
Chrysene	0.550-1.2	780	--
Benzo(b)fluoranthene	0.500-0.910	7.8	--
Benzo(k)fluoranthene	0.390-0.840	78	--
Benzo(a)pyrene	0.420-0.820	0.78	--
Indeno(1,2,3-cd)pyrene	0.340J-0.840	7.8	--
Benzo(g,h,i)perylene	0.270J-0.470	NA	--
GRO	5.4-2200	NA	--
TPH	12-*13,000*	NA	--
PCBs	0.043	2.9	--
Metals **Background**			
Arsenic 1.6	9.29-31.9	610	1.0-40
Barium 41.8	71.7-106	140,000	100-3500
Cadmium <1.05	<1.00	1000	0.01-7.0
Chromium 22	13.6-35.1	10,000	5.0-3000
Lead 13.3	246-399	400 (Residential)	2.0-200
Mercury <0.0432	0.124-0.749	610	0.01-0.08
Selenium <1.0	<1.0-3.1	10,000	0.1-2.0
Silver <1.6	<1.5	10,000	0.1-5.0

Notes: 1. Values in Italic are detections in a duplicate sample.
2. "NA" indicates a standard or criteria is not available; Dragun values available for elements only.
3. IND = indicates Industrial use based criteria.

TABLE 12
POTENTIAL ASSESSMENT CRITERIA FOR GROUNDWATER

PARAMETER	SITE RANGE in GW (mg/L)	VtDEC GQS (mg/L)
Volatile Organics		
Methylene Chloride	0.003B-0.004B	0.005
1,2-Dichloroethane	0.003	0.005
Chloroform	0.007	0.006
m,p-Xylene	0.003-*0.005*	10.0
o-Xylene	0.005-*0.007*	10.0
Methyltertbutyl Ether	0.290	0.040
1,3,5-Trimethylbenzene	0.012-*0.013*	0.004
1,2,4-Trimethylbenzene	0.015-*0.016*	0.005
sec-Butylbenzene	0.002	NA
4-Isopropyltoluene	0.008	NA
n-Butylbenzene	0.003	NA
Ethylbenzene	*0.0007J*	0.700
Isopropylbenzene	*0.001*	NA
1,3-Dichlorobenzene	*0.0009J*	0.600
Napthalene	*0.011B*	0.020
Hexachlorobutadiene	*0.002B*	0.001
GRO	0.015-4.1	NA
TPH	0.140-*4.2*	NA
PAHs	ND	Compound Specific
Metals		
Arsenic	< 0.008	0.050
Barium	0.0761-0.248	2.0
Cadmium	< 0.0100	0.005
Chromium	< 0.0150	0.100
Lead	< 0.005	0.015
Mercury	< 0.0002	0.002
Selenium	< 0.010	0.050
Silver	< 0.015	0.1

Notes: 1. Values in Italic are detections in a duplicate sample.
2. "NA" indicates a VtDEC Groundwater Quality Standard (GQS) is not available.

6.0 ASSESSMENT OF SOIL AND GROUNDWATER DATA

6.1 Area #1 Assessment

The field PID headspace readings measured in the soil were 13.1 and 13.7 ppm. A soil sample collected at 11 feet beneath the abandoned UST was analyzed for TPH, BTEX and MTBE. TPH was detected at 12 mg/kg and no detections of BTEX and MTBE were found. The PID readings were below the Category I, 20 ppm VtDEC Guideline Threshold for gasoline. There are no nearby public or private water supplies, surface waters, or indoor air environments threatened by these conditions.

On the basis of these findings, no further investigation or remedial action is warranted for Area #1. However, the abandoned UST should be addressed in accordance with the VtDEC requirements.

6.2 Area #2 Assessment

The field PID headspace readings measured in the soil ranged from 15.7 to 23.6 ppm. A soil sample collected at 18 feet bgs was analyzed for BTEX and MTBE and no detections were reported. Although several PID readings slightly exceeded the Category I, 20 ppm VtDEC Guideline Threshold for gasoline, there are no nearby public or private water supplies, surface waters, or indoor air environments threatened by these conditions.

On the basis of these findings, no further investigation or remedial action is warranted for Area #2.

6.3 Area #3 and General Yard Assessment

The field PID headspace readings measured in the soil ranged from 2.1 to 21.6 ppm except for an elevated reading of 200 ppm at 20-22 ft bgs at GP-3. Based on the assessment criteria for soil presented in Tables 10 and 11 and the values detected at the site, the data points that show detections above the criteria are summarized below:

- TSS-1 surface sample in the active turntable bottom measured TPH at 6,400 mg/kg which exceeds the VtDEC guidance of industrial use of 1,000 ppm. The impacted soil covers a small surface area and appeared to consist of an older residue of petroleum.

- Benzo(a)pyrene was detected at 0.820 mg/kg in the cinder/slag fill at 1 foot bgs at TP-118A which slightly exceeds the 0.78 mg/kg suggested EPA Region III, Risk-Based Corrective Action Level for industrial sites.

- Several metals including arsenic, barium, chromium, lead, mercury and selenium were detected above the background levels, and in the case of mercury and selenium, detections exceeded the range for native soil concentrations given by Dragun. However, none of the eight metals were found to exceed the EPA Region III values.

- Chloroform, 1,3,5-trimethylbenzene and 1,2,4-trimethylbenzene were detected at concentrations slightly above the VtDEC Groundwater Quality Standards (GQSs). MTBE was found at GP-1 approximately seven times greater than the GQS.

The findings described above are consistent with the long-term use as a railroad yard, in that, soil and groundwater show minor detections of hydrocarbons and other compounds. The original pristine environment in Area #3 has been affected somewhat by the railroad operations, however, no significant impacts were found. If necessary, soils containing petroleum residues (i.e., elevated GRO & TPH) could be actively managed on-site through natural biodegradation. Detections of petroleum constituents and other parameters in groundwater are not significant even though a few compounds exceed the GQSs. No significant source areas were found to correlate to these detections. Therefore, the detections likely represent low-level, sitewide conditions which, in general, stem from the many years of railroad operations. The slight exceedences of the GQSs do not pose a threat since there are no active water supplies that rely on the groundwater resources located within the downgradient influence of Area #3.

The presence of MTBE upgradient from the central yard area at GP-1 suggests a possible source of recent release into the ground since MTBE has been an additive to gasoline beginning in the 1980s. MTBE is often found at the leading edge of a groundwater plume, therefore, indicating that other constituents of gasoline may subsequently follow in time. MTBE was not observed in the two groundwater samples collected at GP-2 and GP-3 suggesting it has not yet arrived at these downgradient locations. Given the limited amount of available data, it is not possible to identify a potential source for the MTBE either on- or off-site. GP-1 should be monitored over a period of time to characterize any changes that may occur, or, if necessary, additional investigations could be considered in an effort to identify the source.

6.4 Area #4 Assessment

The Lewis Oil Company leased parcel is presently an active petroleum bulk storage facility. Other petroleum storage and distribution operations area located nearby along Bay Street. The field PID headspace readings reported in the soil ranged from 202 to 1,730 ppm. Both soil and groundwater samples collected in this area were analyzed for GRO and TPH. The results show thousands of parts per million of petroleum-impacted soil and part per million concentrations in groundwater. These findings indicate that petroleum residues exceed the Category III, VtDEC Guideline Threshold requiring full site characterization, and if remediation is warranted, treatment would need to be carried out at the site. Directly downgradient is an office and garage facility operated by Northern Petroleum Company. Northern Petroleum currently stores and handles petroleum products, therefore, the site may not be pristine with respect to these activities. Future actions taken with respect to the Lewis leased parcel, should consider the nature of the environmental conditions that may be present in the area downgradient from the site.

CPR has not operated the bulk storage facilities at the site. In the past (April 1990), the VtDEC required the current operator, Lewis Oil Company, to clean up an area of contamination identified at the site. This report describes evidence of further impact at the site. CPR would like to assist the VtDEC

as it works with the current operator to address remedial actions that may be required on the leased parcel.

6.5 Area #5 Assessment

The field PID headspace readings measured in the soil ranged from 0.9 to 8.4 ppm. Three soil samples collected between 24 and 30 feet bgs were analyzed for BTEX, MTBE and one VOC. Given that the PID readings were below the Category I, 20 ppm VtDEC Guideline Threshold for gasoline and only trace detections of ethylbenzene and MTBE were found, the findings indicate no significant contamination is present on the soil.

On the basis of these findings, no further investigation or remedial action is warranted for Area #5.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

At CPR's request, Tewhey Associates completed a Phase II Environmental Site Investigation of the St. Johnsbury rail yard. The investigation consisted of subsurface explorations, field measurements of soil and groundwater, laboratory testing of soil and groundwater, and data evaluation to assess the nature of the environmental findings with respect to regulatory criteria or guidelines used by the VtDEC. Based on the completion of this work, Tewhey Associates has summarized the findings and conclusions regarding the rail yard site as follows.

1. The site is currently an active rail yard which has existed since the 1850s. The yard is located in an urban area which is surrounded by various commercial and industrial land uses. The site and adjacent area are supplied by public water and sewer. The site and adjacent area have no known drinking water supplies that rely on the local groundwater resources. Canadian Pacific Railway owned the rail yard from 1964 to 1996 when it was sold to the Northern Vermont Railroad Company.

2. The rail yard exists as a flat to gently sloping terrace formation that is elevated more than 20 feet above the Passumpsic River located nearby to the east. The terrace formation is a glaciofluvial sand and gravel deposit. Similar glaciolacustrine sand and gravel exists as river valley bottom deposits to the east of the terrace formation. These glacial deposits are porous to water infiltration on the surface and permeable to subsurface groundwater flow. Bedrock is shallow in the eastern portion of the site and appears to slope to the south. Groundwater flow in these deposits is estimated to range from 50 to 280 feet per year.

3. Based on historical information gathered by CPR, six areas of the site including the general yard cinder/slag fill area were identified for investigation, sampling and analysis to determine if site-derived materials have been released into the ground and to assess possible off-site sources of groundwater impact.

4. No further investigation or remedial action appears warranted for Areas #1, #2 and #5. Based on the work completed in this study, final closure of the abandoned UST location in Area #1 can be achieved under the VtDEC requirements.

5. The relatively low levels of TPH, PAHs and metals detected in soil and cinder/slag fill are consistent with the long history of rail yard activities at the site. The detections of petroleum residues in Area #4, however, are significant. This area is currently leased by the Lewis Oil Co. which operates an active petroleum bulk storage facility. Based on VtDEC guidance, further site characterization may be needed to assess the potential threat to receptors and to determine if any remedial action is required. A soil sample collected from the turntable in Area #3 also contained elevated petroleum residues. The limited area of this impacted soil can be managed, if needed, through on-site treatment.

6. Groundwater is also significantly impacted in Area #4 thus requiring further interactions with the VtDEC to address any follow-on actions that may be required. Additional groundwater monitoring

may be considered in the future for Area #3 in order to establish the trend over time for those constituents detected above the VtDEC GQSs.

7.2 Recommendations

On the basis of the findings and conclusions described above, Tewhey Associates suggests that the following recommendations be considered for the site.

1. Implement closure of the abandoned UST in Area #1 with the VtDEC. Closure can be achieved through proper registration and removal of the UST and presentation of the investigative data which show no impact above the Category I Soil Guideline Threshold.

2. Develop and implement a monitoring program over a period of time to document the trends in concentrations for those parameters that exceed the GQSs.

3. As part of the monitoring program, install additional sampling well points to detect if gasoline contamination is migrating onto the site and is contributing to the MTBE identified at GP-1.

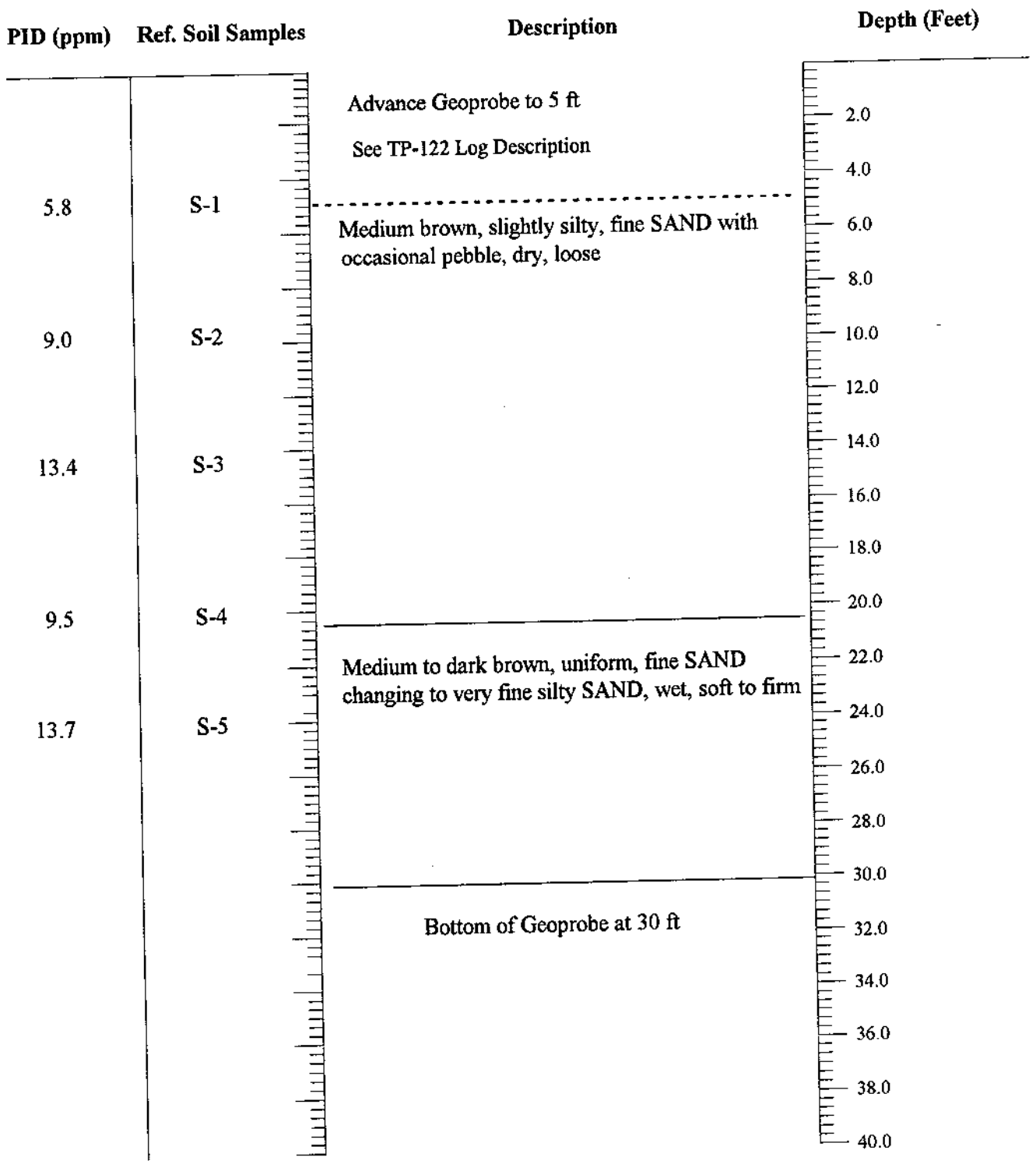
4. Assist the VtDEC as it works with the current operator to address any remedial action that may be appropriate for the leased parcel in Area #4.

5. Meet with the VtDEC to present oral and written reports of the Phase II investigation findings and discuss the nature of any follow-on work that may be required.

APPENDIX A

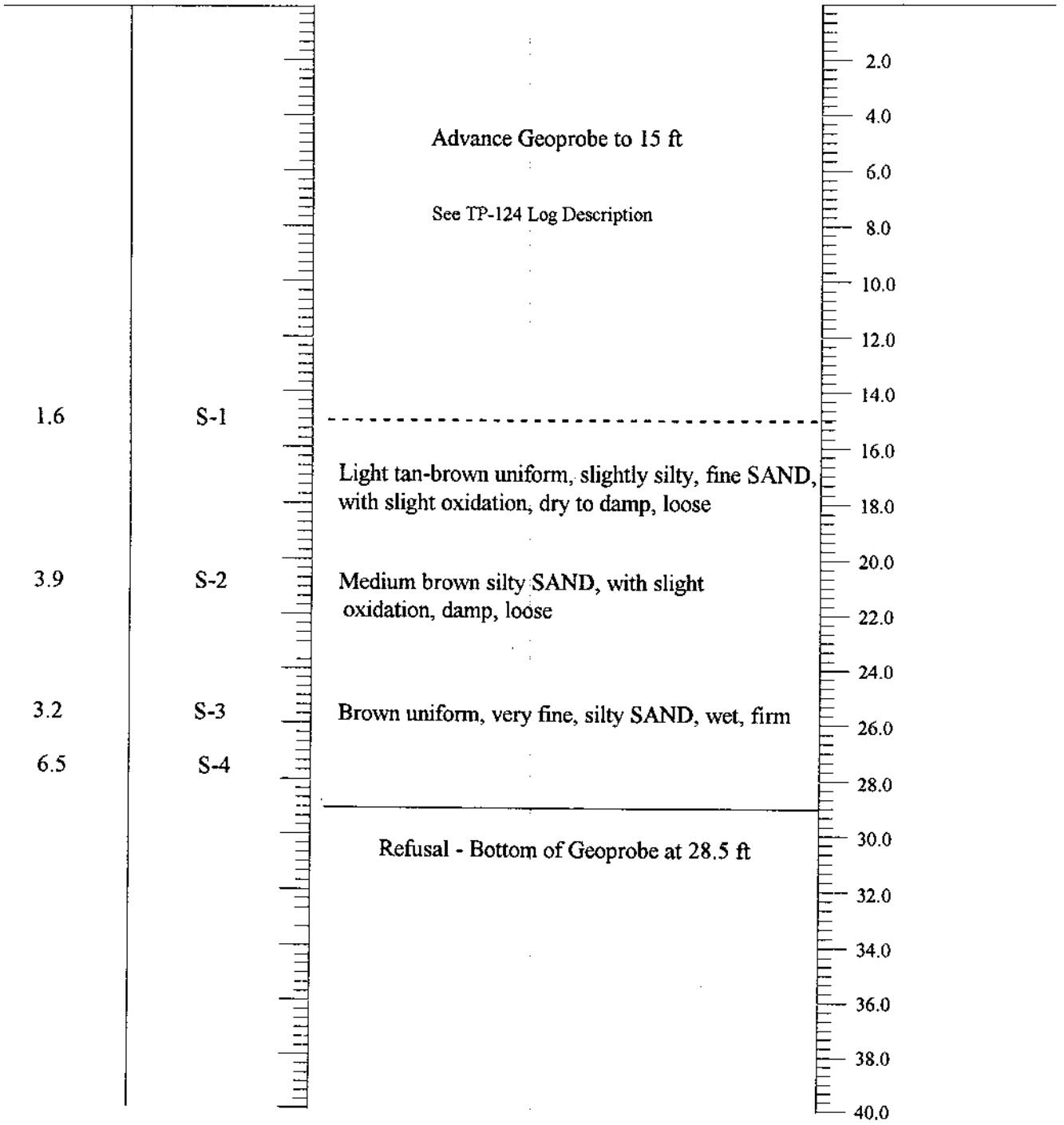
TEST PIT AND GEOPROBE LOGS

TEWHEY ASSOCIATES		GEOPROBE LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard	DRILLER:	Atlantic EcoTechnology, Inc.
PROJECT NO:	91-096		
DATE:	11-18-97	NO:	GP-1
INVESTIGATOR	R. Fortin	LOCATION:	West of Turntable



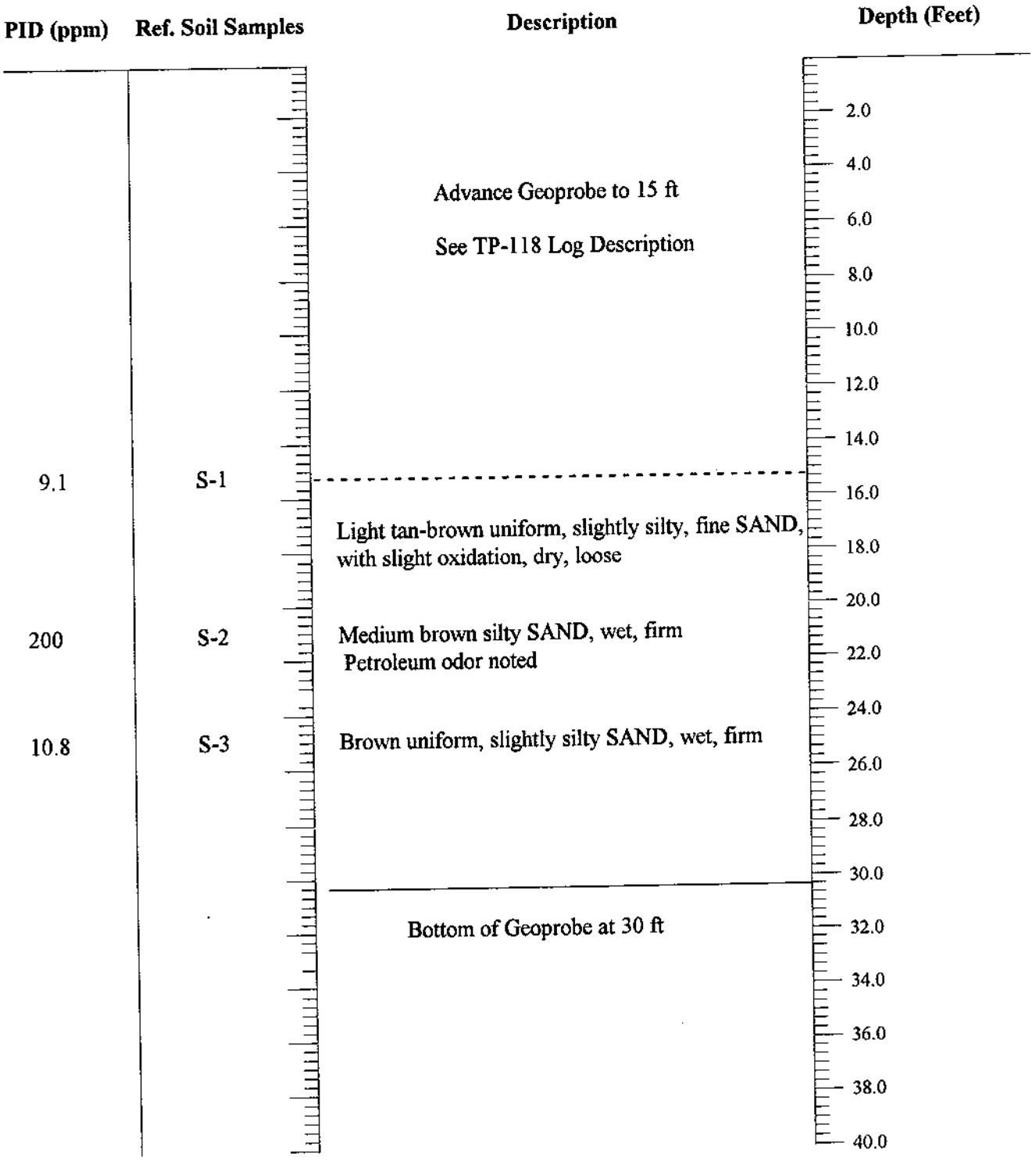
Comments:	Set 1-inch I.D. well point with 10-ft long, 10-slot, Schedule 40, PVC screen at 30-ft depth; filter sand and natural cave around screen; cement/ bentonite seal with protective casing at surface.
Water Table Present:	OBSERVED at 21.1 ft below ground surface on 11/18/97

TEWHEY ASSOCIATES		GEOPROBE LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard	**DRILLER:**	Atlantic EcoTechnology, Inc.
PROJECT NO:	91-096		
DATE:	11-18-97	**NO:**	GP-2
INVESTIGATOR	R. Fortin	**LOCATION:**	Southeast of Turntable



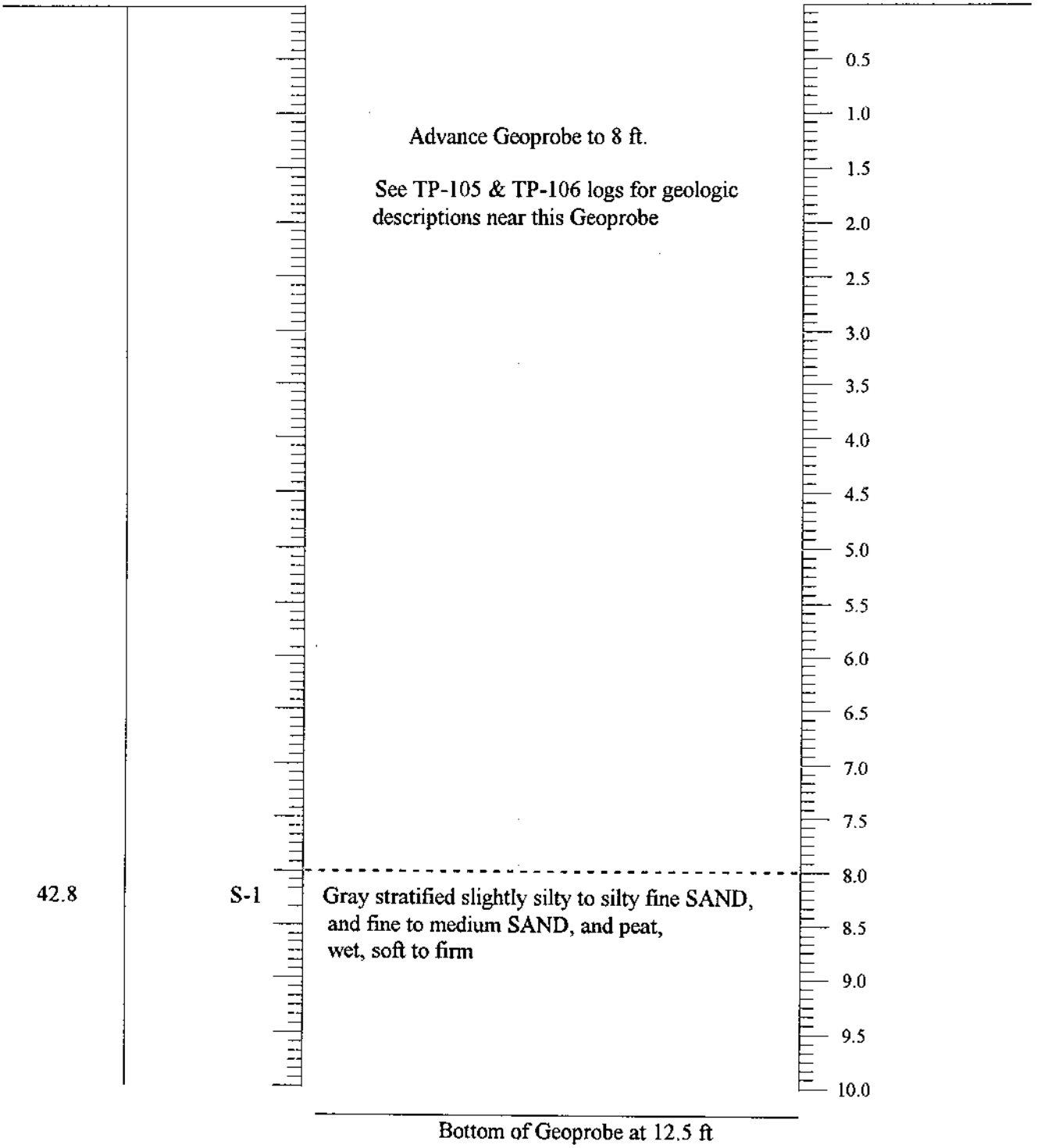
Comments:	Set 1-inch I.D. well point with 5-ft long, 10-slot, Schedule 40, PVC screen at 28.5 ft depth; filter sand and natural cave around screen; cement/ bentonite seal with protective casing at surface.
Water Table Present:	OBSERVED at 27.5 ft below ground surface on 11/18/97

TEWHEY ASSOCIATES		GEOPROBE LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard	DRILLER:	Atlantic EcoTechnology, Inc.
PROJECT NO:	91-096		
DATE:	11-18-97	NO:	GP-3
INVESTIGATOR	R. Fortin	LOCATION:	South of Turntable



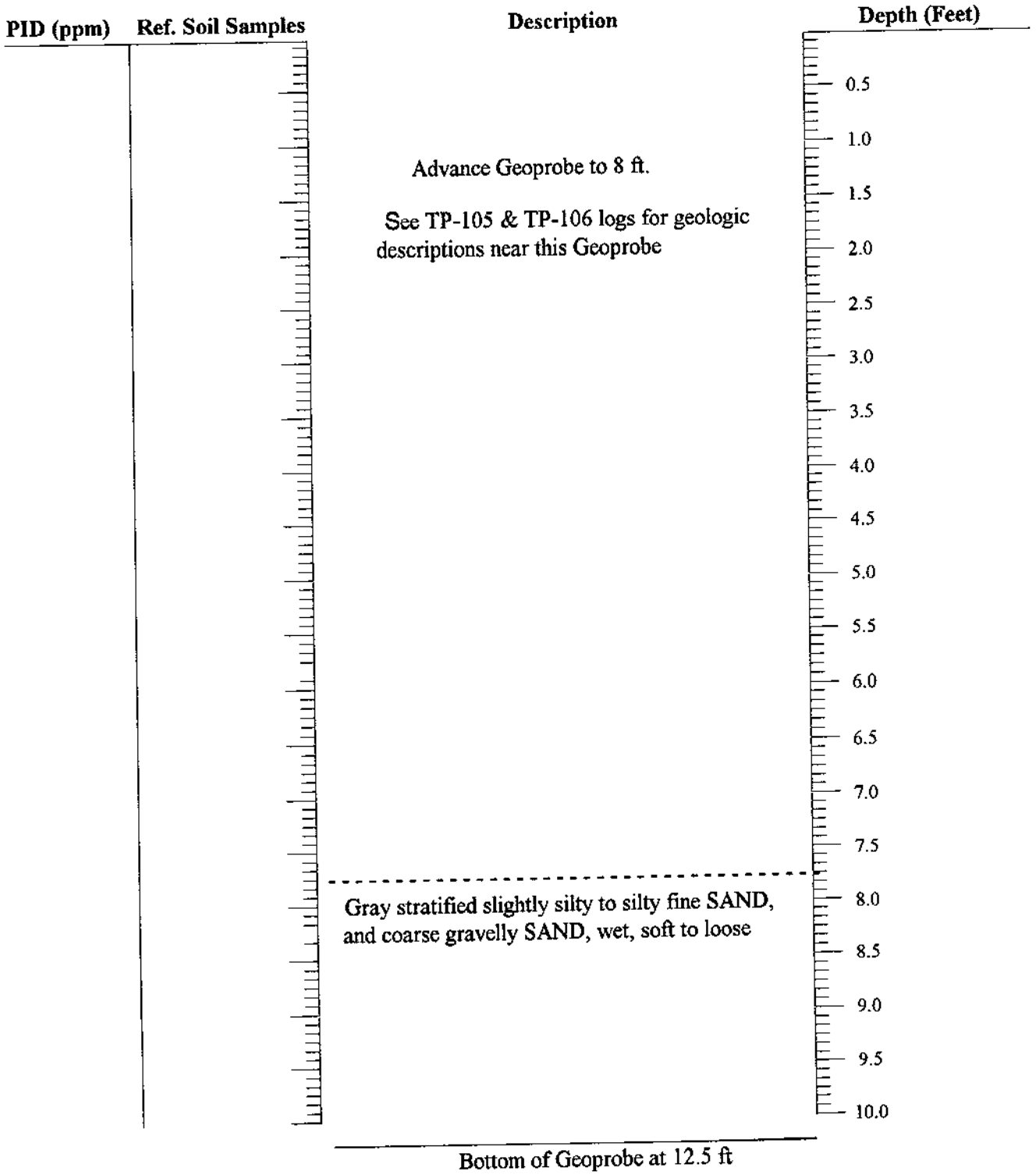
Comments:	Set 1-inch I.D. well point with 10-ft long, 10-slot, Schedule 40, PVC screen at 30-ft depth; filter sand and natural cave around screen; cement/ bentonite seal with protective casing at surface.
Water Table Present:	OBSERVED at 26.9 ft below ground surface on 11/18/97

TEWHEY ASSOCIATES		GEOPROBE LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard	**DRILLER:**	Atlantic EcoTechnology, Inc.
PROJECT NO:	91-096		
DATE:	11-19-97	**NO:**	GP-4
INVESTIGATOR	R. Fortin	**LOCATION:**	On Lewis Oil Lease Site



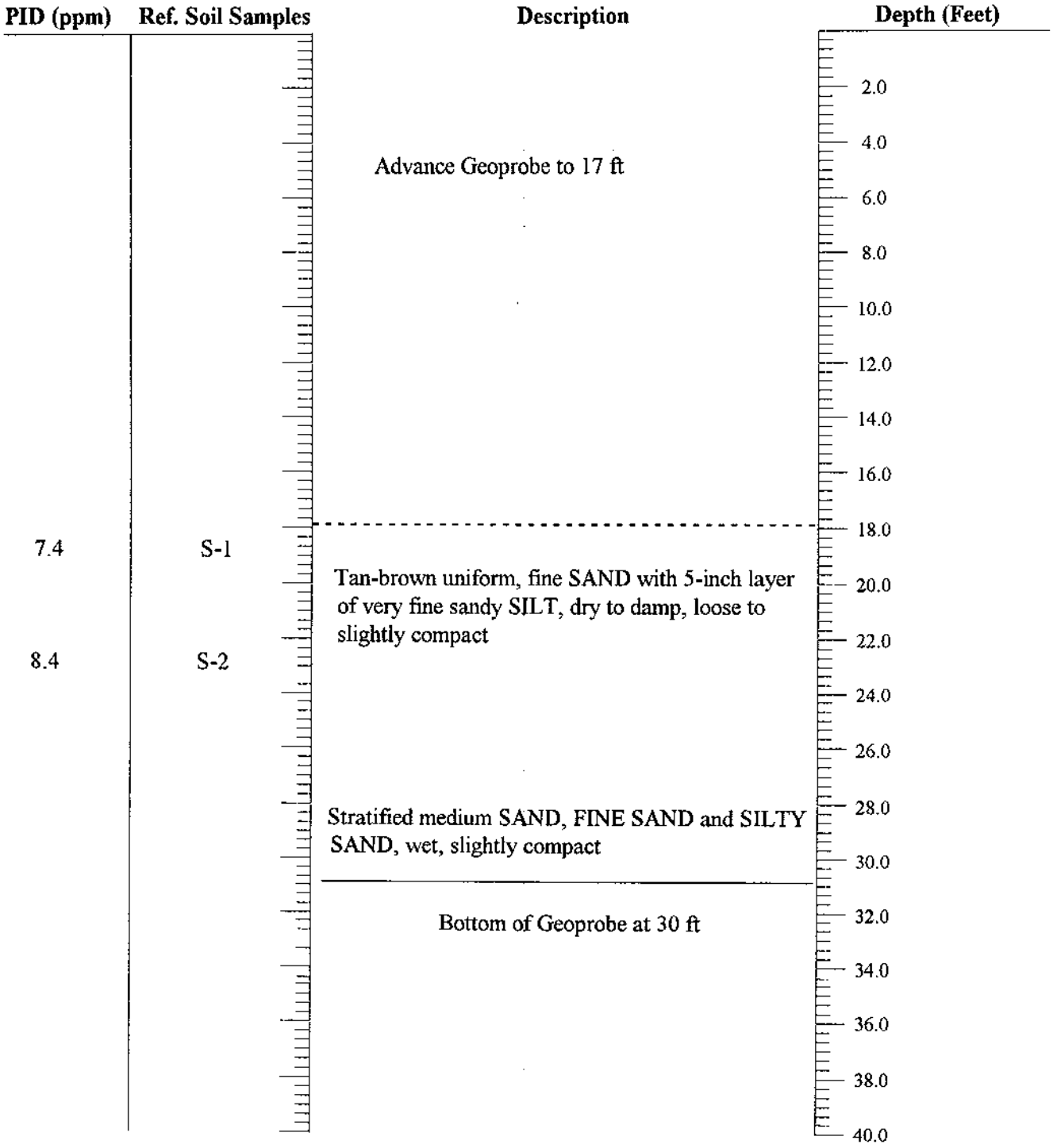
Comments:	Set 1-inch I.D. well point with 10-ft long, 10-slot, Schedule 40, PVC screen at 12.5-ft depth; filter sand and natural cave around screen; cement/ bentonite seal with protective casing at surface.
Water Table Present:	OBSERVED at 4.3 ft below ground surface on 11/19/97

TEWHEY ASSOCIATES		GEOPROBE LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard	**DRILLER:**	Atlantic EcoTechnology, Inc.
PROJECT NO:	91-096		
DATE:	11-19-97	**NO:**	GP-5
INVESTIGATOR	R. Fortin	**LOCATION:**	On Lewis Oil Lease Site



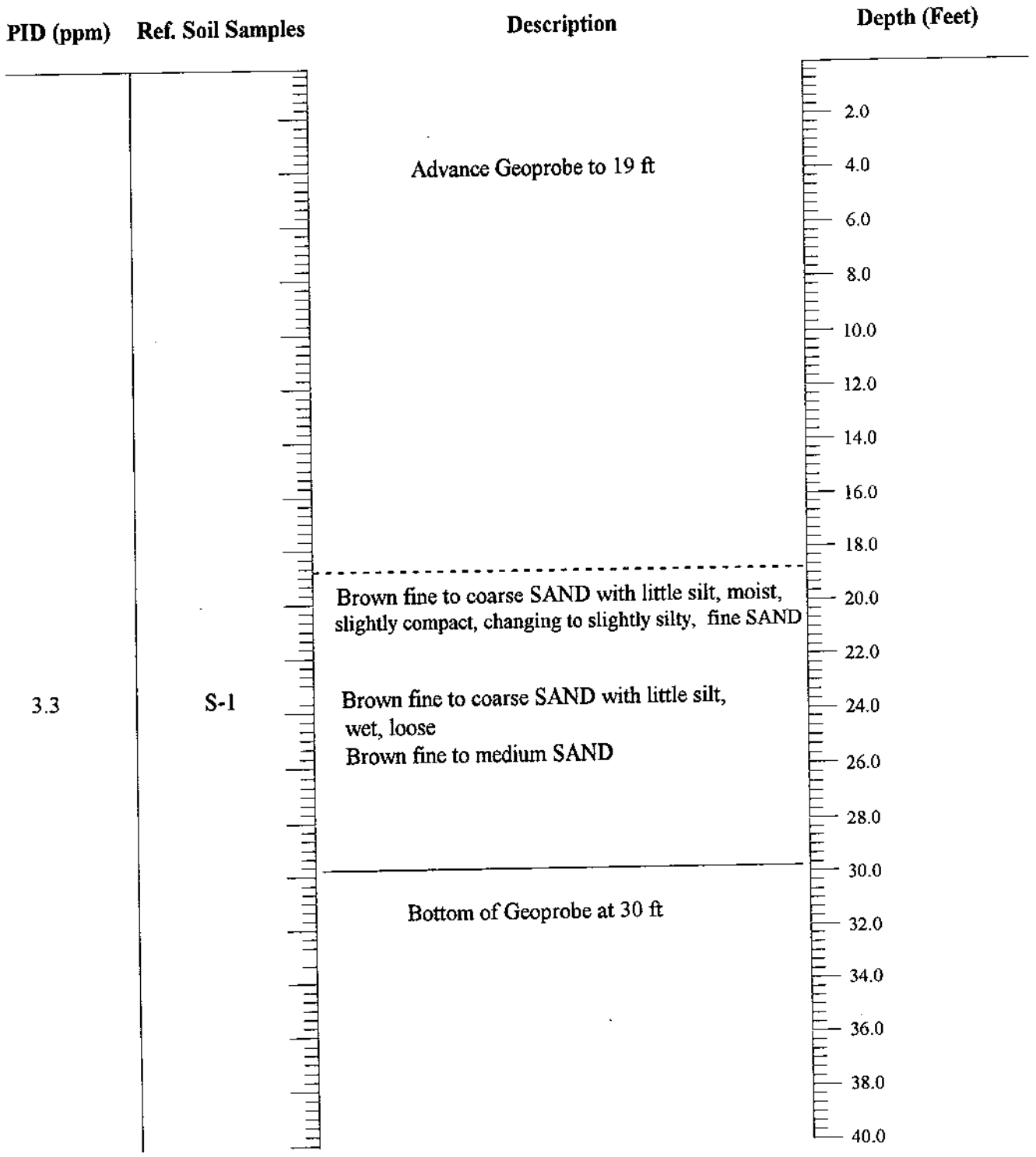
Comments:	Set 1-inch I.D. well point with 10-ft long, 10-slot, Schedule 40, PVC screen at 12.5-ft depth; filter sand and natural cave around screen; cement/ bentonite seal with protective casing at surface.
Water Table Present:	OBSERVED at 4.6 ft below ground surface on 11/19/97

TEWHEY ASSOCIATES		GEOPROBE LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard	**DRILLER:**	Atlantic EcoTechnology, Inc.
PROJECT NO:	91-096		
DATE:	11-19-97	**NO:**	GP-6
INVESTIGATOR	R. Fortin	**LOCATION:**	West Side of Rail Yard



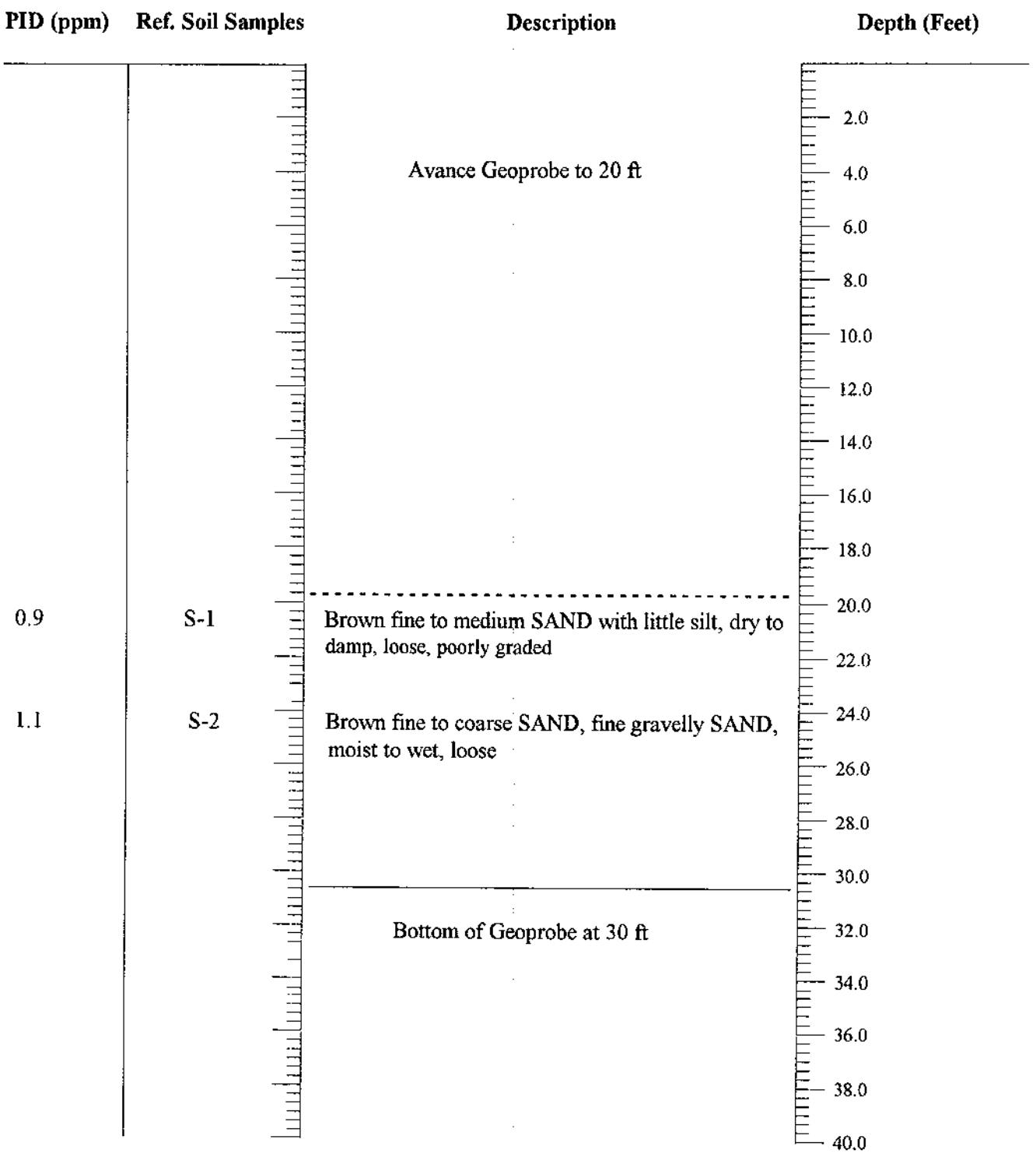
Comments:	No chemical odor or evidence of petroleum residue observed throughout Geoprobe. Lab sample collected at 28 ft.
Water Table Present:	Groundwater estimated at 24 ft.

TEWHEY ASSOCIATES		GEOPROBE LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard	DRILLER:	Atlantic EcoTechnology, Inc.
PROJECT NO:	91-096		
DATE:	11-19-97	NO:	GP-7
INVESTIGATOR	R. Fortin	LOCATION:	West Side of Rail Yard



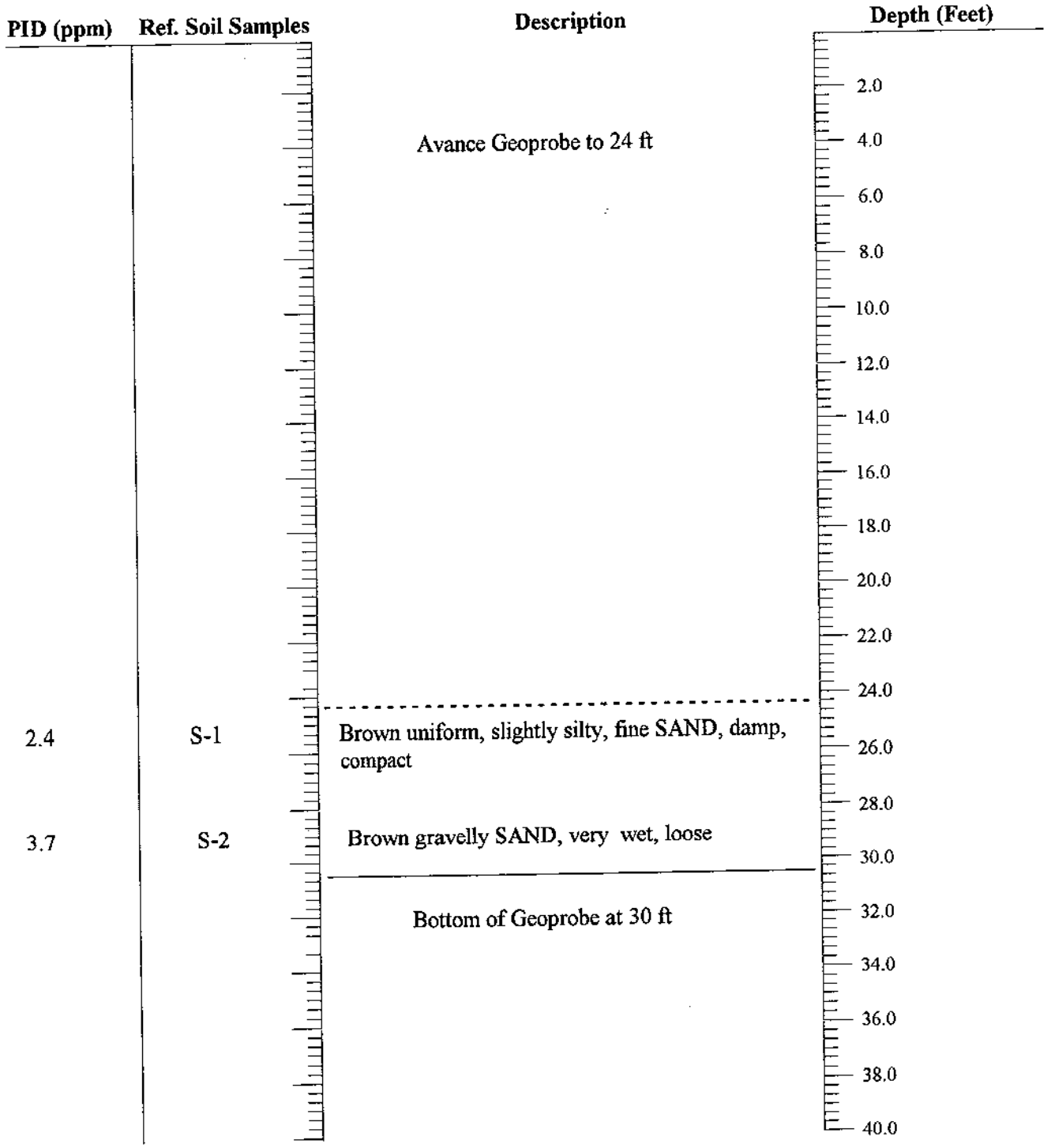
Comments:	No chemical odor or evidence of petroleum residue observed throughout Geoprobe. Lab sample collected at 28 ft.
Water Table Present:	Groundwater estimated at 24 ft.

TEWHEY ASSOCIATES		GEOPROBE LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard	**DRILLER:**	Atlantic EcoTechnology, Inc.
PROJECT NO:	91-096		
DATE:	11-19-97	**NO:**	GP-8
INVESTIGATOR	R. Fortin	**LOCATION:**	West Side of Rail Yard



Comments:	No chemical odor or evidence of petroleum residue observed throughout Geoprobe. Lab samples collected at 24 and 28 ft.
Water Table Present:	Groundwater estimated at 24 ft.

TEWHEY ASSOCIATES		GEOPROBE LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard	DRILLER:	Atlantic EcoTechnology, Inc.
PROJECT NO:	91-096		
DATE:	11-19-97	NO:	GP-9
INVESTIGATOR	R. Fortin	LOCATION:	West Side of Rail Yard



Comments:	No chemical odor or evidence of petroleum residue observed throughout Geoprobe. No lab samples collected.
Water Table Present:	Groundwater estimated at 26 ft.

TEWHEY ASSOCIATES		TEST PIT LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-29-97	**PIT NO:**	TP-101
INVESTIGATOR	R. Fortin	**LOCATION**	North End Rail Yard UST Location

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
		Black silty SAND mixed with cinders, trash, bricks and gravel, dry, loose	0.5, 1.0
		Brown uniform, fine SAND, dry, loose	1.5, 2.0
		Light tan-brown silty SAND with few cobbles and stones, dry to damp, loose to compact	2.5, 3.0
		10-foot long , 1 ft 10-inch diameter UST standing vertically in excavation	3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0
13.1	S-1		9.5
13.7	S-2		
		Bottom of Exploration at 11 ft	10.0

Comments:	No chemical odor or evidence of petroleum residue observed throughout test pit. Lab sample collected at 11 ft.
Water Table Present:	No groundwater encountered.

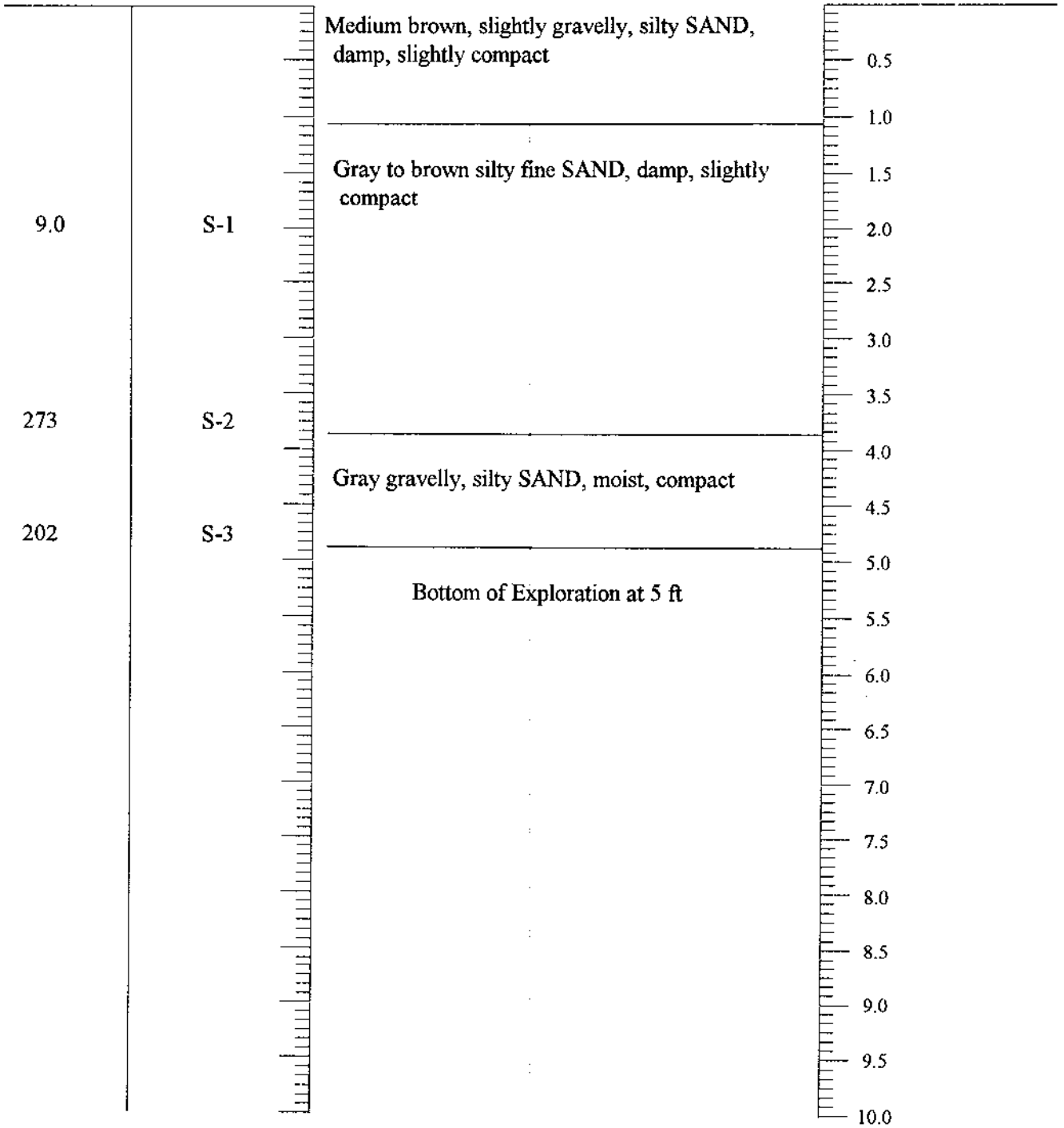
TEWHEY ASSOCIATES — **TEST PIT LOG**

PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-29-97	**PIT NO:**	TP-102
INVESTIGATOR	R. Fortin	**LOCATION**	South End Rail Yard UST Location

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
		Black silty SAND with little fine gravel and cinders, dry, loose	1.0
20.3	S-1	Medium brown medium to coarse SAND with little fine sand and gravel, dry, slightly compact	2.0
15.7	S-2		3.0
			4.0
			5.0
			6.0
			7.0
23.6	S-3		8.0
			9.0
22.3	S-4		10.0
		Gray gravelly medium SAND with some fine to coarse sand, dry to damp, slightly compact	11.0
23.3	S-5		12.0
			13.0
			14.0
			15.0
			16.0
		Gray GRAVEL stratified with slightly clayey, fine sandy SILT, moist to wet, loose to compact	17.0
22.5	S-6		18.0
		Bottom of Exploration at 18 ft	19.0
			20.0

Comments:	No chemical odor or evidence of petroleum residue observed throughout test pit. Lab sample collected at 18 ft.
Water Table Present:	Wet with slight seepage at bottom of test pit.

TEWHEY ASSOCIATES		TEST PIT LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-29-97	PIT NO:	TP-103
INVESTIGATOR	R. Fortin	LOCATION	Lewis Oil Lease Site - South End



Comments:	Petroleum residue odor observed in test pit. Lab sample collected at 5 ft.
Water Table Present:	Water seepage at 4.5 ft.

TEWHEY ASSOCIATES — **TEST PIT LOG**

PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-29-97	**PIT NO:**	TP-105
INVESTIGATOR	R. Fortin	**LOCATION**	Lewis Oil Lease Site - By Wall

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
7.6	S-1	Brown gravelly SAND with cinders, damp, loose to slightly compact	0.5, 1.0, 1.5, 2.0, 2.5
13.5	S-2	Gray slightly clayey, silty, very fine SAND, moist to wet, compact, with petroleum residue present	3.0, 3.5, 4.0, 4.5, 5.0
		Bottom of Exploration at 5 ft	5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10.0

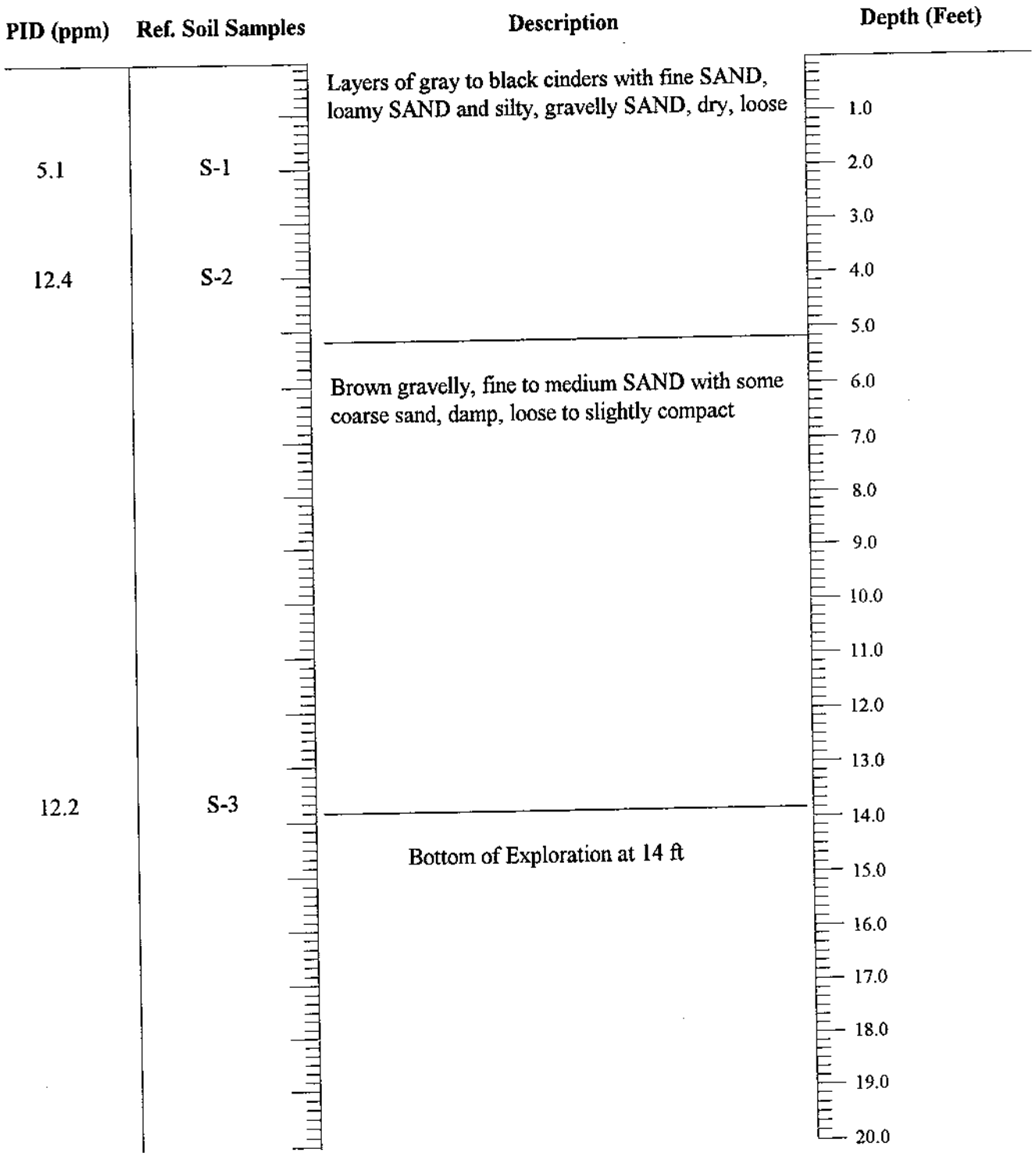
Comments:	Strong petroleum residue odor observed throughout test pit. Lab sample collected at 5 ft.
Water Table Present:	Water seepage at 3.5 ft.

TEWHEY ASSOCIATES		TEST PIT LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-29-97	**PIT NO:**	TP-106
INVESTIGATOR	R. Fortin	**LOCATION**	Lewis Oil Lease Site - North End

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
1730	S-1	Cinders mixed with gray-brown gravelly SAND, damp, slightly compact	0.5, 1.0, 1.5, 2.0, 2.5
		Gray, slightly clayey, very fine silty SAND, moist, compact, with petroleum residue present Concrete pad and water seepage at 4 ft	3.0, 3.5, 4.0
		Bottom of Exploration at 4 ft	4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10.0

Comments:	Strong petroleum residue odor observed throughout test pit. Lab sample collected at 3 ft.
Water Table Present:	Water seepage at 4 ft.

TEWHEY ASSOCIATES		TEST PIT LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-29-97	**PIT NO:**	TP-107
INVESTIGATOR	R. Fortin	**LOCATION**	West Behind Lewis Oil Lease



Comments:	Slight odor of petroleum residue observed in test pit. Lab sample collected at 5 ft.
Water Table Present:	No groundwater encountered.

TEWHEY ASSOCIATES		TEST PIT LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-29-97	**PIT NO:**	TP-114
INVESTIGATOR	R. Fortin	**LOCATION**	Northwest Corner of Repair Track

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
5.4	S-1	Gray crushed ROCK, dry, loose to compact	0.5
		Medium brown, slightly gravelly, silty SAND with small pebbles and rocks and loamy in upper section, dry to damp, moderately compact	1.0, 1.5
5.3	S-2		2.0, 2.5, 3.0, 3.5
6.9	S-3		4.0, 4.5, 5.0, 5.5
		Old 1.5-inch diameter iron pipe found at 6 ft	6.0
		Refusal - Bottom of Exploration at 6.5 ft	6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10.0

Comments:	No chemical odor or evidence of petroleum residue observed throughout test pit. No lab samples collected.
Water Table Present:	No groundwater encountered.

TEWHEY ASSOCIATES		TEST PIT LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-28-97	**PIT NO:**	TP-115
INVESTIGATOR	R. Fortin	**LOCATION**	Off Southeast Corner of Repair Track

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
2.6	S-1	Black ash and CINDER layers mixed with silty sandy loam, dry, loose	0.5 1.0 1.5
6.4	S-2		2.0 2.5
		Brown SAND and GRAVEL, dry to damp, loose to slightly compact	3.0 3.5 4.0 4.5
8.4	S-3		5.0
		Abandoned 1-inch water line and sewer pipe found at 5-6 ft	5.5
		Light tan to rust-brown slightly silty SAND with rocks and boulders, dry to damp, slightly compact	6.0 6.5 7.0 7.5 8.0 8.5
2.3	S-4		
		Refusal - Bottom of Exploration at 9 ft	9.0 9.5 10.0

Comments:	No chemical odor or evidence of petroleum residue observed throughout test pit. Lab sample collected at 2-3 ft.
Water Table Present:	No groundwater encountered.

TEWHEY ASSOCIATES		TEST PIT LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-28-97	**PIT NO:**	TP-116
INVESTIGATOR	R. Fortin	**LOCATION**	East of Turntable by Bay Street

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
		Brown to black sandy silt LOAM with ash and cinders, dry, loose Opposite end has mixed silty SAND, loamy sand and gravel with boulders and brick foundation	0.5, 1.0
		Clay tile drain at 2 ft broken by backhoe - no liquid	1.5, 2.0
8.7	S-1		2.5, 3.0, 3.5
		Light tan-brown uniform, fine SAND with oxidation, dry, loose	4.0, 4.5, 5.0, 5.5, 6.0
3.0	S-2	Brown sandy GRAVEL, damp, loose to slightly compact	6.5, 7.0, 7.5
		Bottom of Exploration at 8 ft	8.0, 8.5, 9.0, 9.5, 10.0

Comments:	No chemical odor or evidence of petroleum residue observed throughout test pit. No lab samples collected.
Water Table Present:	No groundwater encountered.

TEWHEY ASSOCIATES — **TEST PIT LOG**

PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-28-97	**PIT NO:**	TP-117
INVESTIGATOR	R. Fortin	**LOCATION**	Southwest Corner of Repair Track

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
		2-inch Size crushed ROCK over gray to black cinders, ash and SANDY SILT to medium brown slightly gravelly SAND, dry, loose	0.5, 1.0, 1.5
2.1	S-1	Brown SANDY GRAVEL, dry, loose	2.0, 2.5, 3.0
3.9	S-2	Light tan-brown slightly silty, very fine SAND with occasional lens of medium brown SILT and pebbles-stones, dry to damp, loose to slightly compact	3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10.0
3.5	S-3		
2.7	S-4	Bottom of Exploration at 12 ft	

Comments:	No chemical odor or evidence of petroleum residue observed throughout test pit. No lab samples collected.
Water Table Present:	No groundwater encountered.

TEWHEY ASSOCIATES		TEST PIT LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-29-97	**PIT NO:**	TP-118
INVESTIGATOR	R. Fortin	**LOCATION**	South of Oil House

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
		Brown gravelly SAND mixed with bricks, wood, rocks, trash, dry, loose	1.0
11.5	S-1		2.0
			3.0
18.0	S-2		4.0
		Brown uniform fine SAND and gravelly SAND, dry, loose to slightly compact	5.0
			6.0
			7.0
14.0	S-3	Light tan-brown, uniform, silty fine SAND with occasional silt lens and orange oxidation, damp, loose to partially cemented and compact	8.0
			9.0
			10.0
			11.0
			12.0
21.2	S-4		13.0
			14.0
21.6	S-5		15.0
			16.0
			17.0
			18.0
		Bottom of Exploration at 18 ft	19.0
			20.0

Comments:	No chemical odor or evidence of petroleum residue observed throughout test pit. Lab sample collected at 15 ft.
Water Table Present:	No groundwater encountered.

TEWHEY ASSOCIATES		TEST PIT LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-29-97	PIT NO:	TP-118A
INVESTIGATOR	R. Fortin	LOCATION	Ash Disposal Track Area

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
		Gray to black ash and cinders, dry, loose	0.5, 1.0, 1.5
7.1	S-1	Brown fine to medium SAND with little coarse sand, dry, slightly compact	2.0, 2.5, 3.0, 3.5, 4.0, 4.5
5.5	S-2	Brown very coarse sandy GRAVEL, dry to damp, loose to slightly compact	5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5
14.1	S-3		10.0

Bottom of Exploration at 10 ft

Comments:	No chemical odor or evidence of petroleum residue observed throughout test pit. Lab sample collected at 1 ft.
Water Table Present:	No groundwater encountered.

TEWHEY ASSOCIATES		TEST PIT LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-29-97	PIT NO:	TP-119
INVESTIGATOR	R. Fortin	LOCATION	South of Engine House

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
		Black silty SAND with little fine gravel and cinders, slightly loamy, dry, loose	1.0
5.6	S-1	Mix of fill consisting of fine SAND, GRAVEL, bricks and rocks	2.0
			3.0
6.0	S-2		4.0
		Rusty orange oxidation in gravel layer	5.0
		Light tan-brown, uniform, silty fine SAND with occasional medium brown SILT layer, damp, slightly compact	6.0
8.7	S-3		7.0
			8.0
			9.0
			10.0
			11.0
			12.0
10.5	S-4		13.0
		Bottom of Exploration at 13 ft	14.0
			15.0
			16.0
			17.0
			18.0
			19.0
			20.0

Comments:	No chemical odor or evidence of petroleum residue observed throughout test pit. Lab samples collected at 3 inches and 13 ft.
Water Table Present:	No groundwater encountered.

TEWHEY ASSOCIATES — **TEST PIT LOG**

PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-28-97	**PIT NO:**	TP-120
INVESTIGATOR	R. Fortin	**LOCATION**	South of Paint Shop

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
		Black silty SAND, dry, loose	1.0
4.5	S-1	Brown uniform fine SAND and gravelly SAND, dry, loose to slightly compact	2.0
			3.0
5.6	S-2		4.0
			5.0
			6.0
			7.0
14	S-3	Light tan-brown, uniform, silty fine SAND with occasional silt lens and orange oxidation, damp, loose to partially cemented and compact	8.0
			9.0
14.8	S-4		10.0
10.2	S-5		11.0
			12.0
			13.0
8.4	S-6		14.0
		Bottom of Exploration at 14 ft	15.0
			16.0
			17.0
			18.0
			19.0
			20.0

Comments:	An odor indicating possible petroleum or chemical residue was noted. Lab samples collected at 7 and 12 ft.
Water Table Present:	No groundwater encountered.

TEWHEY ASSOCIATES		TEST PIT LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-28-97	**PIT NO:**	TP-121
INVESTIGATOR	R. Fortin	**LOCATION**	South of Oil House

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
2.7	S-1	Brown gravelly SAND mixed with bricks, rocks boulders and ash, dry, loose	1.0
			2.0
		Brown sandy GRAVEL, dry, loose	3.0
3.0	S-2		4.0
			5.0
3.5	S-3	Light brown uniform, very fine silty SAND, dry to damp, slightly compact	6.0
			7.0
			8.0
4.1	S-4		9.0
			10.0
			11.0
			12.0
			13.0
			14.0
8.8	S-5		15.0
		Bottom of Exploration at 15 ft	16.0
			17.0
			18.0
			19.0
			20.0

Comments:	No chemical odor or evidence of petroleum residue observed throughout test pit. No lab samples collected.
Water Table Present:	No groundwater encountered.

TEWHEY ASSOCIATES		TEST PIT LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-28-97	**PIT NO:**	TP-122
INVESTIGATOR	R. Fortin	**LOCATION**	West of Turntable

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
		Brown to black slightly gravelly, silty SAND, dry, loose to slightly compact, change to Brown uniform fine SAND, dry, loose	1.0
7.8	S-1	Brown SANDY GRAVEL, dry, loose	2.0
			3.0
6.8	S-2		4.0
		Brown uniform fine SAND with little medium to coarse sand, dry loose	5.0
			6.0
			7.0
10.9	S-3	Light tan-brown, slightly silty, very fine SAND with slight orange oxidation and occasional medium brown silt lens	8.0
			9.0
			10.0
			11.0
			12.0
			13.0
4.0	S-4		14.0
		Bottom of Exploration at 14 ft	15.0
			16.0
			17.0
			18.0
			19.0
			20.0

Comments:	No chemical odor or evidence of petroleum residue observed throughout test pit. No lab samples collected.
Water Table Present:	No groundwater encountered.

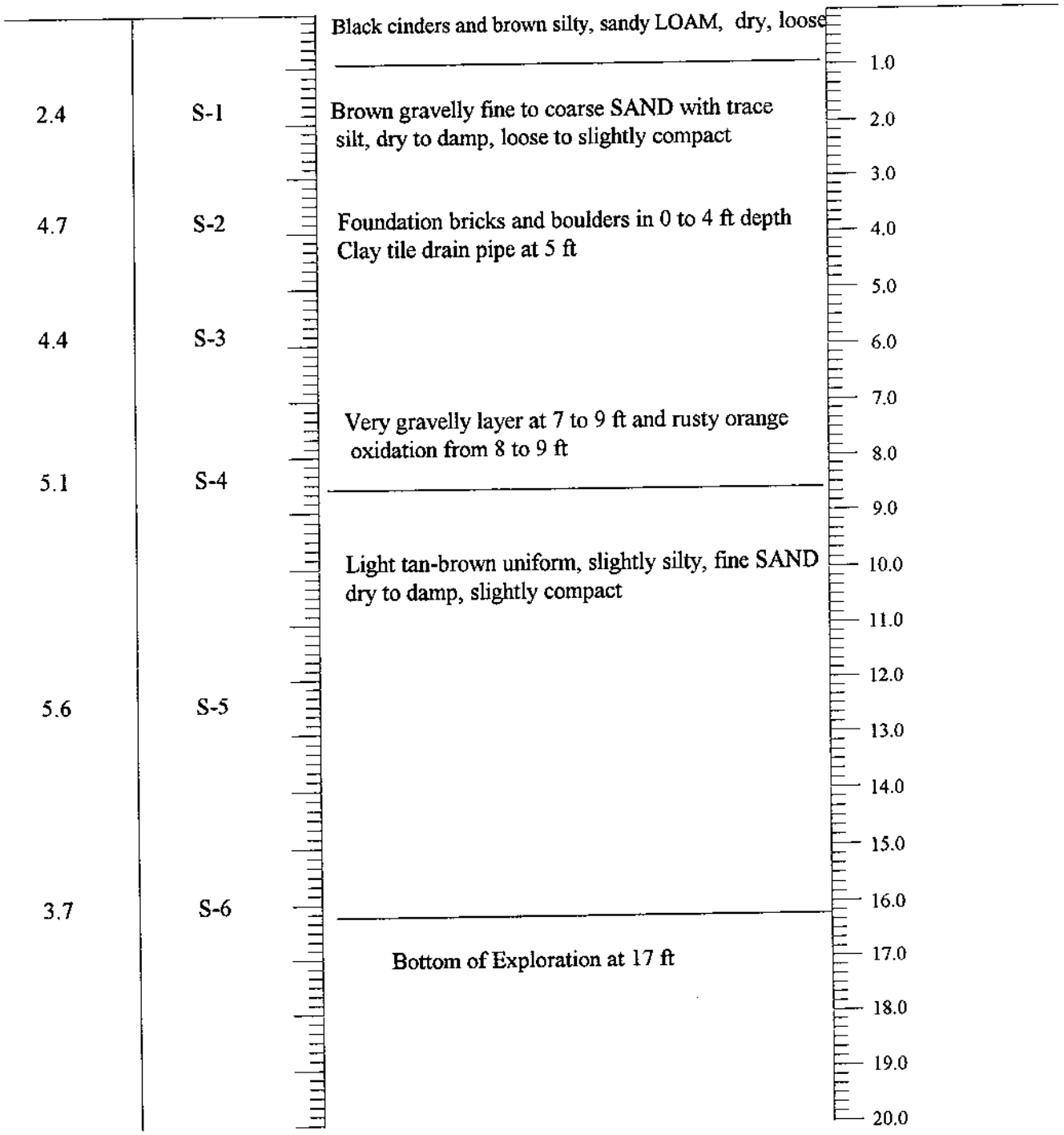
TEWHEY ASSOCIATES		TEST PIT LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-28-97	**PIT NO:**	TP-123
INVESTIGATOR	R. Fortin	**LOCATION**	South Side of Turntable

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
		Black cinders and brown silty, sandy LOAM, with red bricks & white to gray ash, dry, loose	0.5
4.0	S-1	Brown gravelly fine to coarse SAND with trace silt, dry, loose	1.0
			1.5
2.1	S-2		2.0
			2.5
			3.0
			3.5
3.2	S-3		4.0
			4.5
		Light tan-brown uniform fine SAND with gravel lenses and oxidation, dry, slightly compact One end of pit shows disturbed sandy fill over buried sewer pipe location	5.0
			5.5
3.3	S-4		6.0
			6.5
			7.0
4.5	S-5		7.5
			8.0
		Bottom of Exploration at 8 ft	8.5
			9.0
			9.5
			10.0

Comments:	No chemical odor or evidence of petroleum residue observed throughout test pit. No lab samples collected.
Water Table Present:	No groundwater encountered.

TEWHEY ASSOCIATES — **TEST PIT LOG**

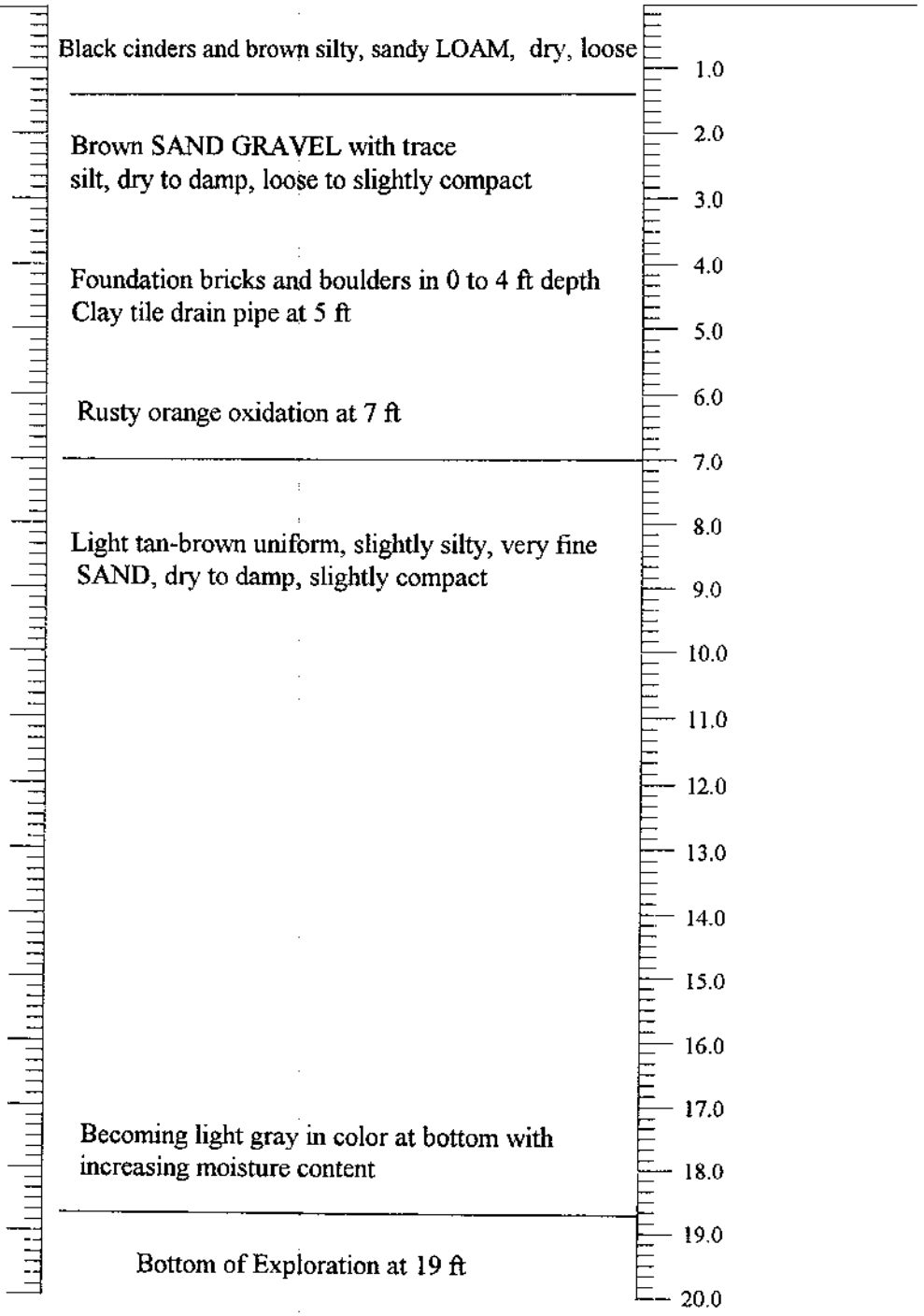
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-28-97	**PIT NO:**	TP-124
INVESTIGATOR	R. Fortin	**LOCATION**	Southeast Side of Turntable



Comments:	No chemical odor or evidence of petroleum residue observed throughout test pit. No lab samples collected.
Water Table Present:	No groundwater encountered.

TEWHEY ASSOCIATES		TEST PIT LOG	
PROJECT:	St. Johnsbury, Vt. Rail Yard		
PROJECT NO:	97-044		
DATE:	10-28-97	**PIT NO:**	TP-125
INVESTIGATOR	R. Fortin	**LOCATION**	East Side of Turntable

PID (ppm)	Ref. Soil Samples	Description	Depth (Feet)
4.2	S-1	Black cinders and brown silty, sandy LOAM, dry, loose	1.0
		Brown SAND GRAVEL with trace silt, dry to damp, loose to slightly compact	2.0
2.8	S-2		3.0
		Foundation bricks and boulders in 0 to 4 ft depth	4.0
3.2	S-3	Clay tile drain pipe at 5 ft	5.0
		Rusty orange oxidation at 7 ft	6.0
			7.0
2.6	S-4	Light tan-brown uniform, slightly silty, very fine SAND, dry to damp, slightly compact	8.0
			9.0
			10.0
			11.0
			12.0
			13.0
2.3	S-5		14.0
			15.0
			16.0
			17.0
		Becoming light gray in color at bottom with increasing moisture content	18.0
2.5	S-6		19.0
		Bottom of Exploration at 19 ft	20.0



Comments:	No chemical odor or evidence of petroleum residue observed throughout test pit. Lab sample collected at 19 ft.
Water Table Present:	No groundwater encountered.

APPENDIX B

LABORATORY ANALYTICAL DATA

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-1
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-101 (11')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Purgeable Aromatics+MTBE								
Benzene	<0.6	µg/kgdrywt	1.1	0.50	EPA 8021	11/07/97	MD	
Toluene	<1.1	µg/kgdrywt	1.1	1.0	EPA 8021	11/07/97	MD	
Ethylbenzene	<1.1	µg/kgdrywt	1.1	1.0	EPA 8021	11/07/97	MD	
Xylenes	<1.1	µg/kgdrywt	1.1	1.0	EPA 8021	11/07/97	MD	
Methyltertbutyl ether	<0.6	µg/kgdrywt	1.1	0.50	EPA 8021	11/07/97	MD	
a,a,a-Trifluorotoluene (% Recovery)	113.	%	1.1		EPA 8021	11/07/97	MD	
TPH								1
TPH	12.	mg/kgdrywt	1.1	5.0	Mod.8100	11/09/97	RH	
o-Terphenyl	67.	%	1.1		Mod.8100	11/09/97	RH	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/05/97 by ESE using SW3550

11/21/97

LJO/jcbkp(dw)/rh

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-2
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-102 (18')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	84.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

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(1) Sample Preparation on 11/03/97 by BAC

11/21/97

LJO/backp(dw)/msm

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
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Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-2
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-102 (18')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Purgeable Aromatics+MTBE								
Benzene	<0.6	µg/kgdrywt	1.2	0.50	EPA 8021	11/07/97	MD	
Toluene	<1.2	µg/kgdrywt	1.2	1.0	EPA 8021	11/07/97	MD	
Ethylbenzene	<1.2	µg/kgdrywt	1.2	1.0	EPA 8021	11/07/97	MD	
Xylenes	<1.2	µg/kgdrywt	1.2	1.0	EPA 8021	11/07/97	MD	
Methyltertbutyl ether	<0.6	µg/kgdrywt	1.2	0.50	EPA 8021	11/07/97	MD	
a,a,a-Trifluorotoluene (% Recovery)	104.	%	1.2		EPA 8021	11/07/97	MD	

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11/21/97

LJO/jcbkp(dw)/mld/pdl/pr

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-3
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-125 (19')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	79.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

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(1) Sample Preparation on 11/03/97 by BAC

11/21/97

LJO/backp(dw)/msm

340 County Road No. 5
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Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-3
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-125 (19')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
VOAs (8260)								1,2
Dichlorodifluoromethane	<2.6	µg/kgdrywt	1.3	2	EPA 8260	10/31/97	KB	
Chloromethane	<2.6	µg/kgdrywt	1.3	2	EPA 8260	10/31/97	KB	
Vinyl chloride	<2.6	µg/kgdrywt	1.3	2	EPA 8260	10/31/97	KB	
Bromomethane	<2.6	µg/kgdrywt	1.3	2	EPA 8260	10/31/97	KB	
Chloroethane	<2.6	µg/kgdrywt	1.3	2	EPA 8260	10/31/97	KB	
Trichlorofluoromethane	<2.6	µg/kgdrywt	1.3	2	EPA 8260	10/31/97	KB	
1,1-Dichloroethene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Methylene chloride	B38	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
trans-1,2-Dichloroethene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,1-Dichloroethane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
cis-1,2-Dichloroethene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
2,2-Dichloropropane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Bromochloromethane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Chloroform	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	

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(1) "J" flag denotes an estimated value less than the Laboratory's Practical Quantitation Level.

(2) A result reported with a "B" qualifier indicates the analytes were detected in the laboratory method blank analyzed concurrently with the sample. The concentrations of Acetone and Methylene Chloride in the method blank were J3 ug/kgdrywt and 1 ug/kgdrywt respectively.

11/21/97

LJO/jcbert/jey/kp(dw)

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210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-3
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-125 (19')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
1,1,1-Trichloroethane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,2-Dichloroethane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,1-Dichloropropene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Carbon tetrachloride	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Benzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,2-Dichloropropane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Trichloroethene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
cis-1,3-Dichloropropene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Dibromomethane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Bromodichloromethane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Toluene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
trans-1,3-Dichloropropene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,1,2-Trichloroethane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,3-Dichloropropane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Dibromochloromethane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	

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11/21/97

LJO/jcbert/jey/kp(dw)

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Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-3
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-125 (19')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Tetrachloroethene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,2-Dibromoethane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Chlorobenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,1,1,2-tetrachloroethane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Ethylbenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
m-Xylene/p-Xylene	J0.9	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Bromoform	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
o-Xylene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Styrene	2.	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,1,2,2-Tetrachloroethane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,2,3-Trichloropropane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Isopropylbenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Bromobenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
2-Chlorotoluene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
n-Propylbenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	

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11/21/97

LJO/jcbert/jey/kp(dw)

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Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-3
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-125 (19')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
4-Chlorotoluene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,3,5-Trimethylbenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
tert-Butylbenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,2,4-Trimethylbenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
sec-Butylbenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,3-Dichlorobenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
4-Isopropyltoluene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,4-Dichlorobenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,2-Dichlorobenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
n-Butylbenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,2-Dibromo-3-chloropropane	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,2,4-Trichlorobenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Naphthalene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
Hexachlorobutadiene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	
1,2,3-Trichlorobenzene	<1.3	µg/kgdrywt	1.3	1	EPA 8260	10/31/97	KB	

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11/21/97

LJO/jcbert/jey/kp(dw)

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Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-3
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-125 (19')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Dibromofluoromethane (Surr.)	101.	%	1.3		EPA 8260	10/31/97	KB	
Toluene-d8 (%)	100.	%	1.3		EPA 8260	10/31/97	KB	
p-Bromofluorobenzene (%)	95.	%	1.3		EPA 8260	10/31/97	KB	
1,2-Dichloroethane-d4 (Surr.)	97	%	1.3	0	EPA 8260	10/31/97	KB	
Acetone	JB6	µg/kgdrywt	1.3	5	EPA 8260	10/31/97	KB	
2-Butanone	<6.5	µg/kgdrywt	1.3	5	EPA 8260	10/31/97	KB	
4-Methyl-2-pentanone	<3.9	µg/kgdrywt	1.3	3	EPA 8260	10/31/97	KB	
2-Hexanone	<5.2	µg/kgdrywt	1.3	4	EPA 8260	10/31/97	KB	
Methyltertbutyl ether	<2.6	µg/kgdrywt	1.3	2.0	EPA 8260	10/31/97	KB	

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11/21/97

LJO/jcbert/jey/kp(dw)

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-4
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-120 (12')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	94.	wt %	1.0	0.10	CLP/CIP SOW	11/06/97	BC	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/05/97 by BAC

11/21/97

LJO/backp(dw)/msm

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

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REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-120 (12')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
VOAs (8260)								1
Dichlorodifluoromethane	<2.2	µg/kgdrywt	1.1	2	EPA 8260	10/31/97	KB	
Chloromethane	<2.2	µg/kgdrywt	1.1	2	EPA 8260	10/31/97	KB	
Vinyl chloride	<2.2	µg/kgdrywt	1.1	2	EPA 8260	10/31/97	KB	
Bromomethane	<2.2	µg/kgdrywt	1.1	2	EPA 8260	10/31/97	KB	
Chloroethane	<2.2	µg/kgdrywt	1.1	2	EPA 8260	10/31/97	KB	
Trichlorofluoromethane	<2.2	µg/kgdrywt	1.1	2	EPA 8260	10/31/97	KB	
1,1-Dichloroethene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Methylene chloride	B30	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
trans-1,2-Dichloroethene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,1-Dichloroethane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
cis-1,2-Dichloroethene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
2,2-Dichloropropane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Bromochloromethane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Chloroform	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,1,1-Trichloroethane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	

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(1) A result reported with a "B" qualifier indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample. The concentration of Methylene Chloride in the method blank was 1 ug/kgdrywt.

11/21/97

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Tel: (207) 874-2400 Fax: (207) 775-6029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3336

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SO PORTLAND, ME 04106

Lab Number : WN-2967-4
Report Date: 11/21/97
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Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-120 (12')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
1,2-Dichloroethane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,1-Dichloropropene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Carbon tetrachloride	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Benzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,2-Dichloropropane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Trichloroethene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
cis-1,3-Dichloropropene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Dibromomethane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Bromodichloromethane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Toluene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
trans-1,3-Dichloropropene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,1,2-Trichloroethane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,3-Dichloropropane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Dibromochloromethane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Tetrachloroethene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,2-Dibromoethane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	

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210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

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SO PORTLAND, ME 04106

Lab Number : WN-2967-4
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-120 (12')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Chlorobenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,1,1,2-tetrachloroethane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Ethylbenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
m-Xylene/p-Xylene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Bromoform	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
o-Xylene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Styrene	1.	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,1,2,2-Tetrachloroethane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,2,3-Trichloropropane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Isopropylbenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Bromobenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
2-Chlorotoluene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
n-Propylbenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
4-Chlorotoluene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,3,5-Trimethylbenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
tert-Butylbenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	

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11/21/97

LJO/jcbert/jey/kp(dw)

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REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-120 (12')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
1,2,4-Trimethylbenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
sec-Butylbenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,3-Dichlorobenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
4-Isopropyltoluene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,4-Dichlorobenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,2-Dichlorobenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
n-Butylbenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,2-Dibromo-3-chloropropane	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,2,4-Trichlorobenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Naphthalene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Hexachlorobutadiene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
1,2,3-Trichlorobenzene	<1.1	µg/kgdrywt	1.1	1	EPA 8260	10/31/97	KB	
Dibromofluoromethane (Surr.)	100.	%	1.1		EPA 8260	10/31/97	KB	
Toluene-d8 (%)	99.	%	1.1		EPA 8260	10/31/97	KB	
p-Bromofluorobenzene (%)	95.	%	1.1		EPA 8260	10/31/97	KB	
1,2-Dichloroethane-d4 (Surr.)	98	%	1.1	0	EPA 8260	10/31/97	KB	

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11/21/97

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Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

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SO PORTLAND, ME 04106

Lab Number : WN-2967-4
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-120 (12')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Acetone	<5.5	µg/kgdrywt	1.1	5	EPA 8260	10/31/97	KB	
2-Butanone	<5.5	µg/kgdrywt	1.1	5	EPA 8260	10/31/97	KB	
4-Methyl-2-pentanone	<3.3	µg/kgdrywt	1.1	3	EPA 8260	10/31/97	KB	
2-Hexanone	<4.4	µg/kgdrywt	1.1	4	EPA 8260	10/31/97	KB	
Methyltertbutyl ether	<2.2	µg/kgdrywt	1.1	2.0	EPA 8260	10/31/97	KB	

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11/21/97

LJO/jcbert/jey/kp(dw)

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
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SO PORTLAND, ME 04106

Lab Number : WN-2967-5
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-120 (7')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	93.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

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(1) Sample Preparation on 11/03/97 by BAC

11/21/97

LJO/backp(dw)/msm

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Tel: (207) 874-2400 Fax: (207) 775-4029

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Lab Number : WN-2967-5
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-120 (7')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Gasoline Range Organics								1
Gasoline Range Organics	5.4	mg/kgdrywt	1.1	2.5	8015M-GRO	11/11/97	TL	
4-Bromofluorobenzene	78.	%	1.1		8015M-GRO	11/11/97	TL	
a,a,a-Trifluorotoluene (%	56.	%	1.1		8015M-GRO	11/11/97	TL	

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(1) Sample Preparation on 11/11/97 by TL

11/21/97

LJO/jcbkp(dw)/pdl

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Lab Number : WN-2967-6
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
BLIND DUP #2	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	81.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

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(1) Sample Preparation on 11/03/97 by BAC

11/21/97

LJO/backp(dw)/msm

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ANALYTICAL SERVICES

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Lab Number : WN-2967-6
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
BLIND DUP #2	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Gasoline Range Organics								1,2
Gasoline Range Organics	880.	mg/kgdrywt	4.9	2.5	8015M-GRO	11/11/97	TL	
4-Bromofluorobenzene	138.	%	4.9		8015M-GRO	11/11/97	TL	
a,a,a-Trifluorotoluene (%	84.	%	4.9		8015M-GRO	11/11/97	TL	

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(1) Sample Preparation on 11/11/97 by TL
(2) Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.

11/21/97

LJO/jcbkp(dw)/pdl

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Lab Number : WN-2967-7
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-119 (13')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	85.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

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(1) Sample Preparation on 11/03/97 by BAC

11/21/97

LJO/backp(dw)/msm

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Lab Number : WN-2967-7
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REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-119 (13')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
TPH								1
TPH	<6.	mg/kgdrywt	1.2	5.0	Mod.8100	11/09/97	RH	
o-Terphenyl	64.	%	1.2		Mod.8100	11/09/97	RH	

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(1) Sample Preparation on 11/05/97 by ESE using SW3550

11/21/97

LJO/jcbkp(dw)/rh

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Lab Number : WN-2967-8
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-103 (5')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	79.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

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(1) Sample Preparation on 11/03/97 by BAC

11/21/97

LJO/backp(dw)/msm

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Lab Number : WN-2967-8
Report Date: 11/21/97
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Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-103 (5')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
TPH								1,2,3
TPH	12000.	mg/kgdrywt	250	5.0	Mod.8100	11/10/97	RH	
o-Terphenyl	DL	%	250		Mod.8100	11/10/97	RH	

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(1) Sample Preparation on 11/05/97 by ESE using SW3550
(2) Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.
(3) "DL" flag denotes inability to calculate surrogate recovery due to sample dilution.

11/21/97

LJO/jcbkp(dw)/rh

Katahdin
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Lab Number : WN-2967-9
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-107 (5')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	96.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by BAC

11/21/97

LJO/backp(dw)/msm

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-9
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-107 (5')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
TPH								1
TPH	16.	mg/kgdrywt	1.0	5.0	Mod.8100	11/09/97	RH	
o-Terphenyl	69.	%	1.0		Mod.8100	11/09/97	RH	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/05/97 by ESE using SW3550

11/21/97

LJO/jcbkp(dw)/rh

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-10
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
BLIND DUP #1	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	78.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by BAC

11/21/97

LJO/backp(dw)/msm

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Tel: (207) 874-2400 Fax: (207) 775-4029

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Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

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JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-10
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
BLIND DUP #1	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
TPH								1,2,3
TPH	13000.	mg/kgdrywt	250	5.0	Mod.8100	11/11/97	RH	
o-Terphenyl	DL	%	250		Mod.8100	11/11/97	RH	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/05/97 by ESE using SW3550
(2) Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.
(3) "DL" flag denotes inability to calculate surrogate recovery due to sample dilution.

11/21/97

LJO/jcbkp(dw)/rh

Katahdin
ANALYTICAL SERVICES

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SO PORTLAND, ME 04106

Lab Number : WN-2967-11
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-119 (3")	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Arsenic, Total	9.29	mg/kgdrywt	1.0	0.8	6010/200.7	11/04/97	EM	1
Barium, Total	71.7	mg/kgdrywt	1.0	0.50	6010/200.7	11/04/97	EM	1
Cadmium, Total	<1.00	mg/kgdrywt	1.0	1.00	6010/200.7	11/04/97	EM	1
Chromium, Total	35.1	mg/kgdrywt	1.0	1.50	6010/200.7	11/04/97	EM	1
Lead, Total	274.	mg/kgdrywt	1.0	0.5	6010/200.7	11/04/97	EM	1
Mercury, Total	0.749	µg/gdrywt	1.0	0.0400	7471	11/05/97	GB	2
Selenium, Total	1.0	mg/kgdrywt	1.0	1.0	6010/200.7	11/04/97	EM	1
Silver, Total	<1.5	mg/kgdrywt	1.0	1.5	6010/200.7	11/04/97	EM	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by PLC using 3050
(2) Sample Preparation on 11/04/97 by GFB using 7471

11/21/97

LJO/ejnkp(dw)
NK03ICS1

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

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Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
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500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-11
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-119 (3")	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	91.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by BAC

11/21/97

LJO/backp(dw)/msm

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Katahdin
ANALYTICAL SERVICES

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Lab Number : WN-2967-11
Report Date: 11/21/97
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Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-119 (3")	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
PCBs only by USEPA 8081								1
PCB-1016	<19.	µg/kgdrywt	1.1	17	EPA 8081	11/11/97	LB	
PCB-1221	<36.	µg/kgdrywt	1.1	33	EPA 8081	11/11/97	LB	
PCB-1232	<19.	µg/kgdrywt	1.1	17	EPA 8081	11/11/97	LB	
PCB-1242	<19.	µg/kgdrywt	1.1	17	EPA 8081	11/11/97	LB	
PCB-1248	<19.	µg/kgdrywt	1.1	17	EPA 8081	11/11/97	LB	
PCB-1254	<19.	µg/kgdrywt	1.1	17	EPA 8081	11/11/97	LB	
PCB-1260	43.	µg/kgdrywt	1.1	17	EPA 8081	11/11/97	LB	
2,4,5,6-Tetrachloro-meta-xylene (%	78.	%	1.1		EPA 8081	11/11/97	LB	
Decachlorobiphenyl (% Recovery)	83.	%	1.1		EPA 8081	11/11/97	LB	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/05/97 by KGT using EPA 3550A

11/21/97

LJO/jcbkp(dw)/pdl

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Katahdin
ANALYTICAL SERVICES

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500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-11
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REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-119 (3")	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
TCL Semivolatile Organics by USEPA 8270B								1,2,3
Phenol	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
bis(2-Chloroethyl)ether	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
2-Chlorophenol	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
1,3-Dichlorobenzene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
1,4-Dichlorobenzene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
1,2-Dichlorobenzene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
2-Methylphenol	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
bis(2-Chloroisopropyl) ether	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
4-Methylphenol	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
n-Nitroso-dipropylamine	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Hexachloroethane	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Nitrobenzene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by KRT using EPA 3550A
(2) "J" flag denotes an estimated value less than the Laboratory's Practical Quantitation Level.
(3) Internal standard area(s) are out of criteria. Reanalysis confirmed matrix interference.

11/21/97

LJO/jcbejn/jjc/kp(dw)

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Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-11
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-119 (3")	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Isophorone	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
2-Nitrophenol	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
2,4-Dimethylphenol	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
bis(2-Chloroethoxy)methane	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
2,4-Dichlorophenol	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
1,2,4-Trichlorobenzene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Naphthalene	J320.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
4-Chloroaniline	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Hexachlorobutadiene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
4-Chloro-3-methylphenol	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
2-Methylnaphthalene	550.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Hexachlorocyclopentadiene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
2,4,6-Trichlorophenol	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
2,4,5-Trichlorophenol	<900.	µg/kgdrywt	1.1	820	EPA 8270B	11/18/97	JG	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

11/21/97

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Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-11
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-119 (3")	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
2-Chloronaphthalene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
2-Nitroaniline	<900.	µg/kgdrywt	1.1	820	EPA 8270B	11/18/97	JG	
Dimethylphthalate	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Acenaphthylene	J230.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
2,6-Dinitrotoluene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
3-Nitroaniline	<900.	µg/kgdrywt	1.1	820	EPA 8270B	11/18/97	JG	
Acenaphthene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
2,4-Dinitrophenol	<900.	µg/kgdrywt	1.1	820	EPA 8270B	11/18/97	JG	
4-Nitrophenol	<900.	µg/kgdrywt	1.1	820	EPA 8270B	11/18/97	JG	
Dibenzofuran	J180.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
2,4-Dinitrotoluene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Diethylphthalate	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
4-Chlorophenyl phenyl ether	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Fluorene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	

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11/21/97

LJO/jcbejn/jjc/kp(dw)

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
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REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-119 (3")	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
4-Nitroaniline	<900.	µg/kgdrywt	1.1	820	EPA 8270B	11/18/97	JG	
4,6-Dinitro-2-methylphenol	<900.	µg/kgdrywt	1.1	820	EPA 8270B	11/18/97	JG	
n-Nitrosodiphenylamine	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
4-Bromophenyl phenyl ether	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Hexachlorobenzene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Pentachlorophenol	<900.	µg/kgdrywt	1.1	820	EPA 8270B	11/18/97	JG	
Phenanthrene	540.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Anthracene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Carbazole	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Di-n-butylphthalate	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Fluoranthene	700.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Pyrene	1300.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Butyl benzylphthalate	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
3,3'-Dichlorobenzidine	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	

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11/21/97

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Katahdin
ANALYTICAL SERVICES

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500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-11
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-119 (3")	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Benzo(a)anthracene	470.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Chrysene	550.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
bis(2-Ethylhexyl)phthalate	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Di-n-octylphthalate	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Benzo(b)fluoranthene	810.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Benzo(k)fluoranthene	630.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Benzo(a)pyrene	540.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Indeno(1,2,3-cd)pyrene	540.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Dibenzo(a,h)anthracene	<360.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
Benzo(g,h,i)perylene	J270.	µg/kgdrywt	1.1	330	EPA 8270B	11/18/97	JG	
2-Fluorophenol (% Recovery)	69.	%	1.1		EPA 8270B	11/18/97	JG	
Phenol-d5 (% Recovery)	79.	%	1.1		EPA 8270B	11/18/97	JG	
Nitrobenzene-d5 (% Recovery)	70.	%	1.1		EPA 8270B	11/18/97	JG	
2-Fluorobiphenyl (% Recovery)	80.	%	1.1		EPA 8270B	11/18/97	JG	

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11/21/97

LJO/jcbejn/jjc/kp(dw)

Katahdin
ANALYTICAL SERVICES

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500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-11
Report Date: 11/21/97
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Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-119 (3")	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
2,4,6-Tribromophenol (% Recovery)	71.	%	1.1		EPA 8270B	11/18/97	JG	
Terphenyl-d14 (% Recovery)	120.	%	1.1		EPA 8270B	11/18/97	JG	

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11/21/97

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ANALYTICAL SERVICES

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Lab Number : WN-2967-12
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-118 (15')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	96.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by BAC

11/21/97

LJO/backp(dw)/msm

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-12
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-118 (15')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Gasoline Range Organics								1
Gasoline Range Organics	5.9	mg/kgdrywt	1.0	2.5	8015M-GRO	11/11/97	TL	
4-Bromofluorobenzene	88.	%	1.0		8015M-GRO	11/11/97	TL	
a,a,a-Trifluorotoluene (%	50.	%	1.0		8015M-GRO	11/11/97	TL	
TPH								2
TPH	<5.	mg/kgdrywt	1.0	5.0	Mod.8100	11/09/97	RH	
o-Terphenyl	70.	%	1.0		Mod.8100	11/09/97	RH	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/11/97 by TL
(2) Sample Preparation on 11/05/97 by ESE using SW3550

11/21/97

LJO/jcbkp(dw)/rh

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-13
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-105 (5')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	70.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by BAC

11/21/97

LJO/backp(dw)/msm

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-13
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-105 (5')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Gasoline Range Organics								1,2,3
Gasoline Range Organics	2200.	mg/kgdrywt	5.7	2.5	8015M-GRO	11/11/97	TL	
4-Bromofluorobenzene	120.	%	5.7		8015M-GRO	11/11/97	TL	
a,a,a-Trifluorotoluene (%	81.	%	5.7		8015M-GRO	11/11/97	TL	
TPH								4,3,5
TPH	6500.	mg/kgdrywt	280	5.0	Mod.8100	11/11/97	RH	
o-Terphenyl	DL	%	280		Mod.8100	11/11/97	RH	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/11/97 by TL
(2) Sample dilution required due to matrix interference, sample viscosity or other matrix-related problem; therefore , standard laboratory Practical Quantitation Level (PQL) could not be achieved.
(3) Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.
(4) Sample Preparation on 11/05/97 by ESE using SW3550
(5) "DL" flag denotes inability to calculate surrogate recovery due to sample dilution.

11/21/97

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ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-14
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-106 (3')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	73.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by BAC

11/21/97

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340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-14
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-106 (3')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Gasoline Range Organics								1,2,3
Gasoline Range Organics	1800.	mg/kgdrywt	6.3	2.5	8015M-GRO	11/11/97	TL	
4-Bromofluorobenzene	MI180	%	6.3		8015M-GRO	11/11/97	TL	
a,a,a-Trifluorotoluene (%	70.	%	6.3		8015M-GRO	11/11/97	TL	
TPH								4,3,5
TPH	5500.	mg/kgdrywt	140	5.0	Mod.8100	11/10/97	RH	
o-Terphenyl	DL	%	140		Mod.8100	11/10/97	RH	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/11/97 by TL
(2) "MI" denotes surrogate recovery out of criteria due to matrix interference.
(3) Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.
(4) Sample Preparation on 11/05/97 by ESE using SW3550
(5) "DL" flag denotes inability to calculate surrogate recovery due to sample dilution.

11/21/97

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Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-15
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
SOIL PILE (5')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	94.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by BAC

11/21/97

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340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

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ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-15
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
SOIL PILE (5')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Gasoline Range Organics								1
Gasoline Range Organics	16.	mg/kgdrywt	1.1	2.5	8015M-GRO	11/11/97	TL	
4-Bromofluorobenzene	90.	%	1.1		8015M-GRO	11/11/97	TL	
a,a,a-Trifluorotoluene (%	62.	%	1.1		8015M-GRO	11/11/97	TL	
TPH								2,3
TPH	110.	mg/kgdrywt	4.2	5.0	Mod.8100	11/10/97	RH	
o-Terphenyl	85.	%	4.2		Mod.8100	11/10/97	RH	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/11/97 by TL
(2) Sample Preparation on 11/05/97 by ESE using SW3550
(3) Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.

11/21/97

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Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-16
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-115 (2-3')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Arsenic, Total	11.4	mg/kgdrywt	1.0	0.8	6010/200.7	11/04/97	EM	1
Barium, Total	81.6	mg/kgdrywt	1.0	0.50	6010/200.7	11/04/97	EM	1
Cadmium, Total	<1.00	mg/kgdrywt	1.0	1.00	6010/200.7	11/04/97	EM	1
Chromium, Total	13.6	mg/kgdrywt	1.0	1.50	6010/200.7	11/04/97	EM	1
Lead, Total	399.	mg/kgdrywt	5.0	0.5	6010/200.7	11/05/97	EM	1
Mercury, Total	0.124	µg/gdrywt	1.0	0.0400	7471	11/05/97	GB	2
Selenium, Total	<1.0	mg/kgdrywt	1.0	1.0	6010/200.7	11/04/97	EM	1
Silver, Total	<1.5	mg/kgdrywt	1.0	1.5	6010/200.7	11/04/97	EM	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by PLC using 3050
(2) Sample Preparation on 11/04/97 by GFB using 7471

11/21/97

LJO/ejnkp(dw)
NK03ICS1

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-16
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-115 (2-3')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	88.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by BAC

11/21/97

LJO/backp(dw)/msm

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
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Lab Number : WN-2967-16
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Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-115 (2-3')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
TPH								1,2
TPH	95.	mg/kgdrywt	2.2	5.0	Mod.8100	11/11/97	RH	
o-Terphenyl	86.	%	2.2		Mod.8100	11/11/97	RH	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/05/97 by ESE using SW3550
(2) Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.

11/21/97

LJO/jcbkp(dw)/rh

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

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ANALYTICAL SERVICES

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500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-16
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-115 (2-3')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Polynuclear Aromatic Hydrocarbons								1,2,3
Naphthalene	<360.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
2-Methylnaphthalene	<360.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Acenaphthylene	<360.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Acenaphthene	<360.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Fluorene	<360.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Phenanthrene	890.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Anthracene	J200.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Fluoranthene	1000.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Pyrene	1000.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Benzo(a)anthracene	500.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Chrysene	620.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Benzo(b)fluoranthene	500.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Benzo(k)fluoranthene	390.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by KRT using EPA 3550A
(2) "J" flag denotes an estimated value less than the Laboratory's Practical Quantitation Level.
(3) Internal standard area(s) are out of criteria. Reanalysis confirmed matrix interference.

11/21/97

LJO/jcbejn/jjc/kp(dw)

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-16
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-115 (2-3')	Solid	R FORTIN	10/28/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Benzo(a)pyrene	420.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Indeno(1,2,3-cd)pyrene	J340.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Dibenzo(a,h)anthracene	<360.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Benzo(g,h,i)perylene	<360.	µg/kgdrywt	1.1	330	EPA 8270	11/13/97	JG	
Nitrobenzene-d5 (% Recovery)	59.	%	1.1		EPA 8270	11/13/97	JG	
2-Fluorobiphenyl (% Recovery)	66.	%	1.1		EPA 8270	11/13/97	JG	
Terphenyl-d14 (% Recovery)	80.	%	1.1		EPA 8270	11/13/97	JG	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

11/21/97

LJO/jcbejn/jjc/kp(dw)

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-17
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-118A	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Arsenic, Total	31.9	mg/kgdrywt	1.0	0.8	6010/200.7	11/04/97	EM	1
Barium, Total	106.	mg/kgdrywt	1.0	0.50	6010/200.7	11/04/97	EM	1
Cadmium, Total	<1.00	mg/kgdrywt	1.0	1.00	6010/200.7	11/04/97	EM	1
Chromium, Total	14.7	mg/kgdrywt	1.0	1.50	6010/200.7	11/04/97	EM	1
Lead, Total	246.	mg/kgdrywt	1.0	0.5	6010/200.7	11/04/97	EM	1
Mercury, Total	0.568	µg/gdrywt	1.0	0.0400	7471	11/05/97	GB	2
Selenium, Total	3.1	mg/kgdrywt	1.0	1.0	6010/200.7	11/04/97	EM	1
Silver, Total	<1.5	mg/kgdrywt	1.0	1.5	6010/200.7	11/04/97	EM	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by PLC using 3050
(2) Sample Preparation on 11/04/97 by GFB using 7471

11/21/97

LJO/ejnkp(dw)
NK03ICS1

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

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JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-17
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-118A	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	82.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by BAC

11/21/97

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Katahdin
ANALYTICAL SERVICES

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SO PORTLAND, ME 04106

Lab Number : WN-2967-17
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TP-118A	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Polynuclear Aromatic Hydrocarbons								1,2,3
Naphthalene	J240.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
2-Methylnaphthalene	J340.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Acenaphthylene	J190.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Acenaphthene	<400.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Fluorene	<400.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Phenanthrene	1300.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Anthracene	J300.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Fluoranthene	2100.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Pyrene	2700.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Benzo(a)anthracene	910.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Chrysene	1200.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Benzo(b)fluoranthene	950.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Benzo(k)fluoranthene	840.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by KRT using EPA 3550A
(2) "J" flag denotes an estimated value less than the Laboratory's Practical Quantitation Level.
(3) Internal standard area(s) are out of criteria. Reanalysis confirmed matrix interference.

11/21/97

LJO/jcbejn/jjc/kp(dw)

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-17
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-118A	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Benzo(a)pyrene	820.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Indeno(1,2,3-cd)pyrene	840.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Dibenzo(a,h)anthracene	<400.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Benzo(g,h,i)perylene	470.	µg/kgdrywt	1.2	330	EPA 8270	11/13/97	JG	
Nitrobenzene-d5 (% Recovery)	66.	%	1.2		EPA 8270	11/13/97	JG	
2-Fluorobiphenyl (% Recovery)	71.	%	1.2		EPA 8270	11/13/97	JG	
Terphenyl-d14 (% Recovery)	118.	%	1.2		EPA 8270	11/13/97	JG	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

11/21/97

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340 County Road No. 5
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Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-18
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TSS-1	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	94.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/03/97 by BAC

11/21/97

LJO/backp(dw)/msm

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-18
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
TSS-1	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
PCBs only by USEPA 8081								1
PCB-1016	<19.	µg/kgdrywt	1.1	17	EPA 8081	11/11/97	LB	
PCB-1221	<36.	µg/kgdrywt	1.1	33	EPA 8081	11/11/97	LB	
PCB-1232	<19.	µg/kgdrywt	1.1	17	EPA 8081	11/11/97	LB	
PCB-1242	<19.	µg/kgdrywt	1.1	17	EPA 8081	11/11/97	LB	
PCB-1248	<19.	µg/kgdrywt	1.1	17	EPA 8081	11/11/97	LB	
PCB-1254	<19.	µg/kgdrywt	1.1	17	EPA 8081	11/11/97	LB	
PCB-1260	<19.	µg/kgdrywt	1.1	17	EPA 8081	11/11/97	LB	
2,4,5,6-Tetrachloro-meta-xylene (%	83.	%	1.1		EPA 8081	11/11/97	LB	
Decachlorobiphenyl (% Recovery)	69.	%	1.1		EPA 8081	11/11/97	LB	
TPH								2,3,4
TPH	6400.	mg/kgdrywt	260	5.0	Mod.8100	11/10/97	RH	
o-Terphenyl	DL	%	260		Mod.8100	11/10/97	RH	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/05/97 by KGT using EPA 3550A
(2) Sample Preparation on 11/05/97 by ESE using SW3550
(3) Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.
(4) "DL" flag denotes inability to calculate surrogate recovery due to sample dilution.

11/21/97

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Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3336

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3249-1
Report Date: 12/09/97
PO No. : 744
Project : ST. JOHNSBURY, VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-6(28-30)	Solid	CLIENT	11/19/97	11/20/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	79.	wt %	1.0	0.10	CLP/CIP SOW	11/25/97	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/24/97 by JF

12/09/97

LJO/backp(dw)/msm

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P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3249-1
Report Date: 12/09/97
PO No. : 744
Project : ST. JOHNSBURY, VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-6 (28-30)	Solid	CLIENT	11/19/97	11/20/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Purgeable Aromatics+MTBE								
Benzene	<0.6	µg/kgdrywt	1.2	0.50	EPA 8021	12/02/97	PR	
Toluene	<1.2	µg/kgdrywt	1.2	1.0	EPA 8021	12/02/97	PR	
Ethylbenzene	<1.2	µg/kgdrywt	1.2	1.0	EPA 8021	12/02/97	PR	
Xylenes	<1.2	µg/kgdrywt	1.2	1.0	EPA 8021	12/02/97	PR	
Methyltertbutyl ether	1.9	µg/kgdrywt	1.2	0.50	EPA 8021	12/02/97	PR	
a,a,a-Trifluorotoluene (% Recovery)	110.	%	1.2		EPA 8021	12/02/97	PR	

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12/09/97

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Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3249-2
Report Date: 12/09/97
PO No. : 744
Project : ST. JOHNSBURY, VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-7(28-30)	Solid	CLIENT	11/19/97	11/20/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	87.	wt %	1.0	0.10	CLP/CIP SOW	11/25/97	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/24/97 by JF

12/09/97

LJO/backp(dw)/msm

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3249-2
Report Date: 12/09/97
PO No. : 744
Project : ST. JOHNSBURY, VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-7(28-30)	Solid	CLIENT	11/19/97	11/20/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Purgeable Aromatics+MTBE								
Benzene	<0.6	µg/kgdrywt	1.2	0.50	EPA 8021	12/02/97	PR	
Toluene	<1.2	µg/kgdrywt	1.2	1.0	EPA 8021	12/02/97	PR	
Ethylbenzene	<1.2	µg/kgdrywt	1.2	1.0	EPA 8021	12/02/97	PR	
Xylenes	<1.2	µg/kgdrywt	1.2	1.0	EPA 8021	12/02/97	PR	
Methyltertbutyl ether	17.	µg/kgdrywt	1.2	0.50	EPA 8021	12/02/97	PR	
a,a,a-Trifluorotoluene (% Recovery)	109.	%	1.2		EPA 8021	12/02/97	PR	

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Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

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ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3249-3
Report Date: 12/09/97
PO No. : 744
Project : ST. JOHNSBURY, VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-8 (24-26)	Solid	CLIENT	11/19/97	11/20/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	86.	wt %	1.0	0.10	CLP/CIP SOW	11/25/97	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/24/97 by JF

12/09/97

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Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

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JOHN D TEWHEY ASSOC
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SO PORTLAND, ME 04106

Lab Number : WN-3249-3
Report Date: 12/09/97
PO No. : 744
Project : ST. JOHNSBURY, VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-8(24-26)	Solid	CLIENT	11/19/97	11/20/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Purgeable Aromatics+MTBE								
Benzene	<0.6	µg/kgdrywt	1.2	0.50	EPA 8021	12/03/97	PR	
Toluene	<1.2	µg/kgdrywt	1.2	1.0	EPA 8021	12/03/97	PR	
Ethylbenzene	<1.2	µg/kgdrywt	1.2	1.0	EPA 8021	12/03/97	PR	
Xylenes	<1.2	µg/kgdrywt	1.2	1.0	EPA 8021	12/03/97	PR	
Methyltertbutyl ether	<0.6	µg/kgdrywt	1.2	0.50	EPA 8021	12/03/97	PR	
a,a,a-Trifluorotoluene (% Recovery)	114.	%	1.2		EPA 8021	12/03/97	PR	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

12/09/97

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210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3249-4
Report Date: 12/09/97
PO No. : 744
Project : ST. JOHNSBURY, VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-8 (28-30)	Solid	CLIENT	11/19/97	11/20/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	86.	wt %	1.0	0.10	CLP/CIP SOW	11/25/97	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/24/97 by JF

12/09/97

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Tel: (207) 874-2400 Fax: (207) 775-4029

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Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

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SO PORTLAND, ME 04106

Lab Number : WN-3249-4
Report Date: 12/09/97
PO No. : 744
Project : ST. JOHNSBURY, VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-8(28-30)	Solid	CLIENT	11/19/97	11/20/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
VOAs (8260)								1,2
Dichlorodifluoromethane	<2.4	µg/kgdrywt	1.2	2	EPA 8260	11/28/97	JY	
Chloromethane	<2.4	µg/kgdrywt	1.2	2	EPA 8260	11/28/97	JY	
Vinyl chloride	<2.4	µg/kgdrywt	1.2	2	EPA 8260	11/28/97	JY	
Bromomethane	<2.4	µg/kgdrywt	1.2	2	EPA 8260	11/28/97	JY	
Chloroethane	<2.4	µg/kgdrywt	1.2	2	EPA 8260	11/28/97	JY	
Trichlorofluoromethane	<2.4	µg/kgdrywt	1.2	2	EPA 8260	11/28/97	JY	
1,1-Dichloroethene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Methylene chloride	B3	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
trans-1,2-Dichloroethene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,1-Dichloroethane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
cis-1,2-Dichloroethene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
2,2-Dichloropropane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Bromochloromethane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Chloroform	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	

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(1) "J" flag denotes an estimated value less than the Laboratory's Practical Quantitation Level.
(2) A result reported with a "B" qualifier indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample. The concentration of Methylene Chloride in the method blank was lug/kg.

12/09/97

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210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3249-4
Report Date: 12/09/97
PO No. : 744
Project : ST. JOHNSBURY, VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-8(28-30)	Solid	CLIENT	11/19/97	11/20/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
1,1,1-Trichloroethane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,2-Dichloroethane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,1-Dichloropropene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Carbon tetrachloride	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Benzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,2-Dichloropropane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Trichloroethene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
cis-1,3-Dichloropropene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Dibromomethane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Bromodichloromethane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Toluene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
trans-1,3-Dichloropropene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,1,2-Trichloroethane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,3-Dichloropropane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Dibromochloromethane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	

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12/09/97

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Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3249-4
Report Date: 12/09/97
PO No. : 744
Project : ST. JOHNSBURY, VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-8(28-30)	Solid	CLIENT	11/19/97	11/20/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Tetrachloroethene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,2-Dibromoethane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Chlorobenzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,1,1,2-tetrachloroethane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Ethylbenzene	J0.7	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
m-Xylene/p-Xylene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Bromoform	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
o-Xylene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Styrene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,1,2,2-Tetrachloroethane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,2,3-Trichloropropane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Isopropylbenzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Bromobenzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
2-Chlorotoluene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
n-Propylbenzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	

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12/09/97

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Katahdin
ANALYTICAL SERVICES

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SO PORTLAND, ME 04106

Lab Number : WN-3249-4
Report Date: 12/09/97
PO No. : 744
Project : ST. JOHNSBURY, VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-8 (28-30)	Solid	CLIENT	11/19/97	11/20/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
4-Chlorotoluene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,3,5-Trimethylbenzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
tert-Butylbenzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,2,4-Trimethylbenzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
sec-Butylbenzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,3-Dichlorobenzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
4-Isopropyltoluene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,4-Dichlorobenzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,2-Dichlorobenzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
n-Butylbenzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,2-Dibromo-3-chloropropane	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,2,4-Trichlorobenzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Naphthalene	7.	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
Hexachlorobutadiene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	
1,2,3-Trichlorobenzene	<1.2	µg/kgdrywt	1.2	1	EPA 8260	11/28/97	JY	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

12/09/97

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340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3249-4
Report Date: 12/09/97
PO No. : 744
Project : ST. JOHNSBURY, VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-8 (28-30)	Solid	CLIENT	11/19/97	11/20/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Dibromofluoromethane (Surr.)	90.	%	1.2		EPA 8260	11/28/97	JY	
Toluene-d8 (%)	98.	%	1.2		EPA 8260	11/28/97	JY	
p-Bromofluorobenzene (%)	88.	%	1.2		EPA 8260	11/28/97	JY	
Acetone	<6.	µg/kgdrywt	1.2	5	EPA 8260	11/28/97	JY	
2-Butanone	<6.	µg/kgdrywt	1.2	5	EPA 8260	11/28/97	JY	
4-Methyl-2-pentanone	<3.6	µg/kgdrywt	1.2	3	EPA 8260	11/28/97	JY	
2-Hexanone	<4.8	µg/kgdrywt	1.2	4	EPA 8260	11/28/97	JY	
Methyltertbutyl ether	<2.4	µg/kgdrywt	1.2	2	EPA 8260	11/28/97	JY	

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12/09/97

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340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-2967-1
Report Date: 11/21/97
PO No. : 744
Project : ST JOHNSBURY VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
TP-101 (11')	Solid	R FORTIN	10/29/97	10/30/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	87.	wt %	1.0	0.10	CLP/CIP SOW	11/04/97	BC	1

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(1) Sample Preparation on 11/03/97 by BAC

11/21/97

LJO/backp(dw)/msm

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-2
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-2	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Arsenic, Dissolved	<0.008	mg/L	1.0	0.008	6010/200.7	12/12/97	EM	1
Barium, Dissolved	0.0761	mg/L	1.0	0.0050	6010/200.7	12/12/97	EM	1
Cadmium, Dissolved	<0.0100	mg/L	1.0	0.0100	6010/200.7	12/12/97	EM	1
Chromium, Dissolved	<0.0150	mg/L	1.0	0.0150	6010/200.7	12/12/97	EM	1
Lead, Dissolved	<0.005	mg/L	1.0	0.005	6010/200.7	12/12/97	EM	1
Mercury, Dissolved	<0.200	µg/L	1.0	0.200	245.1	12/08/97	GB	2
Selenium, Dissolved	<0.010	mg/L	1.0	0.010	6010/200.7	12/12/97	EM	1
Silver, Dissolved	<0.015	mg/L	1.0	0.015	6010/200.7	12/12/97	EM	1

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(1) Sample Preparation on 12/08/97 by PLC using 3010
(2) Sample Preparation on 12/06/97 by GFB using 245.1

12/31/97

LJO/ejnkp(dw)
NL08ICW1
CC: R. FORTIN

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: 207-775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-2
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-2	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Gasoline Range Organics								
Gasoline Range Organics	15.	µg/L	1.0	10	8015M-GRO	12/15/97	TL	
4-Bromofluorobenzene	88.	%	1.0		8015M-GRO	12/15/97	TL	
TPH								1
TPH	150.	µg/L	1.0	50	Mod.8100	12/13/97	RH	
o-Terphenyl	74.	%	1.0		Mod.8100	12/13/97	RH	

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(1) Sample Preparation on 12/09/97 by KGT

12/31/97

LJO/jcbkp(dw)/rh

CC: R. FORTIN

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-0029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-2
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-2	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Polynuclear Aromatic Hydrocarbons								1
Naphthalene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
2-Methylnaphthalene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Acenaphthylene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Acenaphthene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Fluorene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Phenanthrene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Anthracene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Fluoranthene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Pyrene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(a)anthracene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Chrysene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(b)fluoranthene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(k)fluoranthene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(a)pyrene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Indeno(1,2,3-cd)pyrene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	

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(1) Sample Preparation on 12/08/97 by TCB using EPA 3520

12/31/97

LJO/jcbebg/jfg/kp(dw)
NL09BNW1
CC: R. FORTIN

340 Cottrell Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-2
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-2	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Dibenzo(a,h)anthracene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(g,h,i)perylene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Nitrobenzene-d5 (% Recovery)	74.	%	1.0		EPA 8270	12/15/97	SW	
2-Fluorobiphenyl (% Recovery)	81.	%	1.0		EPA 8270	12/15/97	SW	
Terphenyl-d14 (% Recovery)	67.	%	1.0		EPA 8270	12/15/97	SW	

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12/31/97

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340 County Road No. 5
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Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

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ANALYTICAL SERVICES

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Lab Number : WN-3376-2
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REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-2	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
VOAs (8260)								1
Dichlorodifluoromethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Chloromethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Vinyl chloride	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Bromomethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Chloroethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Trichlorofluoromethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
1,1-Dichloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Methylene chloride	B3	µg/L	1.0	1	EPA 8260	12/12/97	KB	
trans-1,2-Dichloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1-Dichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
cis-1,2-Dichloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
2,2-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromochloromethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Chloroform	7.	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,1-Trichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	

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(1) A result reported with a "B" qualifier indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample. The concentration of Methylene Chloride in the method blank was 3ug/L.

12/31/97

LJO/jcbjdy/kp(dw)/pag

CC: R. FORTIN

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-2
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-2	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
1,2-Dichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Carbon tetrachloride	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Benzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Trichloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
cis-1,3-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Dibromomethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromodichloromethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Toluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
trans-1,3-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,2-Trichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,3-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Dibromochloromethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Tetrachloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dibromoethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	

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12/31/97

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CC: R. FORTIN

500 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5771 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-2
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-2	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Chlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,1,2-tetrachloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Ethylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
m-Xylene/p-Xylene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromoform	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
o-Xylene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Styrene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,2,2-Tetrachloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2,3-Trichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Isopropylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
2-Chlorotoluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
n-Propylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
4-Chlorotoluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,3,5-Trimethylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
tert-Butylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	

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12/31/97

LJO/jcbjdy/kp(dw)/pag

CC: R. FORTIN

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-2
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-2	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
1,2,4-Trimethylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
sec-Butylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,3-Dichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
4-Isopropyltoluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,4-Dichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
n-Butylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dibromo-3-chloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2,4-Trichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Naphthalene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Hexachlorobutadiene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2,3-Trichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Dibromofluoromethane (Surr.)	107.	%	1.0		EPA 8260	12/12/97	KB	
Toluene-d8 (%)	99.	%	1.0		EPA 8260	12/12/97	KB	
p-Bromofluorobenzene (%)	92.	%	1.0		EPA 8260	12/12/97	KB	
Acetone	<5	µg/L	1.0	5	EPA 8260	12/12/97	KB	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

12/31/97

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CC: R. FORTIN

3 Mill County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-2
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-2	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
2-Butanone	<5	µg/L	1.0	5	EPA 8260	12/12/97	KB	
4-Methyl-2-pentanone	<3	µg/L	1.0	3	EPA 8260	12/12/97	KB	
2-Hexanone	<4	µg/L	1.0	4	EPA 8260	12/12/97	KB	
Methyltertbutyl ether	<2.	µg/L	1.0	2.	EPA 8260	12/12/97	KB	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

12/31/97

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CC: R. FORTIN

344 Cottrell Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: 207-874-2400 Fax: 207-775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603)-431-5777 Fax: (603)-436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-3
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-3	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Arsenic, Dissolved	<0.008	mg/L	1.0	0.008	6010/200.7	12/12/97	EM	1
Barium, Dissolved	0.102	mg/L	1.0	0.0050	6010/200.7	12/12/97	EM	1
Cadmium, Dissolved	<0.0100	mg/L	1.0	0.0100	6010/200.7	12/12/97	EM	1
Chromium, Dissolved	<0.0150	mg/L	1.0	0.0150	6010/200.7	12/12/97	EM	1
Lead, Dissolved	<0.005	mg/L	1.0	0.005	6010/200.7	12/12/97	EM	1
Mercury, Dissolved	<0.200	µg/L	1.0	0.200	245.1	12/08/97	GB	2
Selenium, Dissolved	<0.010	mg/L	1.0	0.010	6010/200.7	12/12/97	EM	1
Silver, Dissolved	<0.015	mg/L	1.0	0.015	6010/200.7	12/12/97	EM	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 12/08/97 by PLC using 3010
(2) Sample Preparation on 12/06/97 by GFB using 245.1

12/31/97

LJO/ejnkp(dw)
NL08ICW1
CC: R. FORTIN

340 County Road No. 8
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-3
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-3	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Gasoline Range Organics								
Gasoline Range Organics	73.	µg/L	1.0	10	8015M-GRO	12/15/97	TL	
4-Bromofluorobenzene	84.	%	1.0		8015M-GRO	12/15/97	TL	
TPH								1
TPH	2300.	µg/L	1.0	50	Mod.8100	12/13/97	RH	
o-Terphenyl	86.	%	1.0		Mod.8100	12/13/97	RH	

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(1) Sample Preparation on 12/09/97 by KGT

12/31/97

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CC: R. FORTIN

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: 207-874-2400 Fax: 207-775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5[illegible] Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-3
Report Date: 12/31/97
PO.No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-3	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Polynuclear Aromatic Hydrocarbons								1
Naphthalene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
2-Methylnaphthalene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Acenaphthylene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Acenaphthene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Fluorene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Phenanthrene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Anthracene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Fluoranthene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Pyrene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(a)anthracene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Chrysene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(b)fluoranthene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(k)fluoranthene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(a)pyrene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Indeno(1,2,3-cd)pyrene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	

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(1) Sample Preparation on 12/08/97 by TCB using EPA 3520

12/31/97

LJO/jcbebg/jfg/kp(dw)
NL09BNW1
CC: R. FORTIN

Mill County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-8778 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-3
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-3	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Dibenzo(a,h)anthracene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(g,h,i)perylene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Nitrobenzene-d5 (% Recovery)	72.	%	1.0		EPA 8270	12/15/97	SW	
2-Fluorobiphenyl (% Recovery)	81.	%	1.0		EPA 8270	12/15/97	SW	
Terphenyl-d14 (% Recovery)	33.	%	1.0		EPA 8270	12/15/97	SW	

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12/31/97

LJO/jcbebg/jfg/kp(dw)
NL09BNW1
CC: R. FORTIN

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: 207-87[illegible]-2400 Fax: 207-775-0029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

KATAHDIN ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-3
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-3	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
VOAs (8260)								1
Dichlorodifluoromethane	<2	µg/L	1.0	2	EPA 8260	12/13/97	KB	
Chloromethane	<2	µg/L	1.0	2	EPA 8260	12/13/97	KB	
Vinyl chloride	<2	µg/L	1.0	2	EPA 8260	12/13/97	KB	
Bromomethane	<2	µg/L	1.0	2	EPA 8260	12/13/97	KB	
Chloroethane	<2	µg/L	1.0	2	EPA 8260	12/13/97	KB	
Trichlorofluoromethane	<2	µg/L	1.0	2	EPA 8260	12/13/97	KB	
1,1-Dichloroethene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Methylene chloride	B3	µg/L	1.0	1	EPA 8260	12/13/97	KB	
trans-1,2-Dichloroethene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,1-Dichloroethane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
cis-1,2-Dichloroethene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
2,2-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Bromochloromethane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Chloroform	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,1,1-Trichloroethane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	

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(1) A result reported with a "B" qualifier indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample. The concentration of Methylene Chloride in the method blank was 3ug/L.

12/31/97

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ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-3
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-3	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
1,2-Dichloroethane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,1-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Carbon tetrachloride	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Benzene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,2-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Trichloroethene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
cis-1,3-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Dibromomethane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Bromodichloromethane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Toluene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
trans-1,3-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,1,2-Trichloroethane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,3-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Dibromochloromethane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Tetrachloroethene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,2-Dibromoethane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	

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12/31/97

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CC: R. FORTIN

56 Quarry Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-3
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-3	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Chlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,1,1,2-tetrachloroethane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Ethylbenzene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
m-Xylene/p-Xylene	3.	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Bromoform	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
o-Xylene	5.	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Styrene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,1,2,2-Tetrachloroethane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,2,3-Trichloropropane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Isopropylbenzene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Bromobenzene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
2-Chlorotoluene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
n-Propylbenzene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
4-Chlorotoluene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,3,5-Trimethylbenzene	12.	µg/L	1.0	1	EPA 8260	12/13/97	KB	
tert-Butylbenzene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

12/31/97

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CC: R. FORTIN

146 County Road No. 9
P.O. Box 726, Westbrook, ME 04098
Tel: (207) 87?-2400 Fax: (207) 7??-8029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5??? Fax: (603) 436-3556

Katahdin ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-3
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-3	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
1,2,4-Trimethylbenzene	15.	µg/L	1.0	1	EPA 8260	12/13/97	KB	
sec-Butylbenzene	2.	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,3-Dichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
4-Isopropyltoluene	8.	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,4-Dichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,2-Dichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
n-Butylbenzene	3.	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,2-Dibromo-3-chloropropane	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,2,4-Trichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Naphthalene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Hexachlorobutadiene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
1,2,3-Trichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/13/97	KB	
Dibromofluoromethane (Surr.)	103.	%	1.0		EPA 8260	12/13/97	KB	
Toluene-d8 (%)	104.	%	1.0		EPA 8260	12/13/97	KB	
p-Bromofluorobenzene (%)	98.	%	1.0		EPA 8260	12/13/97	KB	
Acetone	<5	µg/L	1.0	5	EPA 8260	12/13/97	KB	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

12/31/97

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CC: R. FORTIN

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-3
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-3	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
2-Butanone	<5	µg/L	1.0	5	EPA 8260	12/13/97	KB	
4-Methyl-2-pentanone	<3	µg/L	1.0	3	EPA 8260	12/13/97	KB	
2-Hexanone	<4	µg/L	1.0	4	EPA 8260	12/13/97	KB	
Methyltertbutyl ether	<2.	µg/L	1.0	2.	EPA 8260	12/13/97	KB	

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12/31/97

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CC: R. FORTIN

342 County Road No. 5
P.O. Box 220, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-2029

230 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5771 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-1
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-1	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Arsenic, Total	<0.008	mg/L	1.0	0.008	6010/200.7	12/12/97	EM	1
Barium, Total	0.248	mg/L	1.0	0.0050	6010/200.7	12/12/97	EM	1
Cadmium, Total	<0.0100	mg/L	1.0	0.0100	6010/200.7	12/12/97	EM	1
Chromium, Total	<0.0150	mg/L	1.0	0.0150	6010/200.7	12/12/97	EM	1
Lead, Total	<0.005	mg/L	1.0	0.005	6010/200.7	12/12/97	EM	1
Mercury, Total	<0.200	µg/L	1.0	0.200	245.1	12/08/97	GB	2
Selenium, Total	<0.010	mg/L	1.0	0.010	6010/200.7	12/12/97	EM	1
Silver, Total	<0.015	mg/L	1.0	0.015	6010/200.7	12/12/97	EM	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 12/08/97 by PLC using 3010
(2) Sample Preparation on 12/06/97 by GFB using 245.1

12/31/97

LJO/ejnkp(dw)
NL08ICW1
CC: R. FORTIN

56 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: 207-874-2400 Fax: 207-775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-1
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-1	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Gasoline Range Organics								
Gasoline Range Organics	100.	µg/L	1.0	10	8015M-GRO	12/15/97	TL	
4-Bromofluorobenzene	65.	%	1.0		8015M-GRO	12/15/97	TL	
TPH								1
TPH	140.	µg/L	1.0	50	Mod.8100	12/13/97	RH	
o-Terphenyl	82.	%	1.0		Mod.8100	12/13/97	RH	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 12/09/97 by KGT

12/31/97

LJO/jcbkp(dw)/rh

CC: R. FORTIN

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-5356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-1
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
GP-1	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Polynuclear Aromatic Hydrocarbons								1
Naphthalene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
2-Methylnaphthalene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Acenaphthylene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Acenaphthene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Fluorene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Phenanthrene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Anthracene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Fluoranthene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Pyrene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(a)anthracene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Chrysene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(b)fluoranthene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(k)fluoranthene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(a)pyrene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Indeno(1,2,3-cd)pyrene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 12/08/97 by TCB using EPA 3520

12/31/97

LJO/jcbebg/jfg/kp(dw)
NL09BNW1
CC: R. FORTIN

56 Main Street, Westbrook, ME 04092
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-1
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-1	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Dibenzo(a,h)anthracene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Benzo(g,h,i)perylene	<10.	µg/L	1.0	10	EPA 8270	12/15/97	SW	
Nitrobenzene-d5 (% Recovery)	78.	%	1.0		EPA 8270	12/15/97	SW	
2-Fluorobiphenyl (% Recovery)	81.	%	1.0		EPA 8270	12/15/97	SW	
Terphenyl-d14 (% Recovery)	48.	%	1.0		EPA 8270	12/15/97	SW	

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12/31/97

LJO/jcbebg/jfg/kp(dw)
NL09BNW1
CC: R. FORTIN

160 Center Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 433-5577 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-1
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-1	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
VOAs (8260)								1
Dichlorodifluoromethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Chloromethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Vinyl chloride	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Bromomethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Chloroethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Trichlorofluoromethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
1,1-Dichloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Methylene chloride	B4	µg/L	1.0	1	EPA 8260	12/12/97	KB	
trans-1,2-Dichloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1-Dichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
cis-1,2-Dichloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
2,2-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromochloromethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Chloroform	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,1-Trichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

(1) A result reported with a "B" qualifier indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample. The concentration of Methylene Chloride in the method blank was 3ug/L.

12/31/97

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CC: R. FORTIN

3 Mill County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

216 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-5356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-1
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-1	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
1,2-Dichloroethane	3.	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Carbon tetrachloride	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Benzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Trichloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
cis-1,3-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Dibromomethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromodichloromethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Toluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
trans-1,3-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,2-Trichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,3-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Dibromochloromethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Tetrachloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dibromoethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

12/31/97

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CC: R. FORTIN

Suite 1 Centre Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-1
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-1	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Chlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,1,2-tetrachloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Ethylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
m-Xylene/p-Xylene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromoform	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
o-Xylene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Styrene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,2,2-Tetrachloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2,3-Trichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Isopropylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
2-Chlorotoluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
n-Propylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
4-Chlorotoluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,3,5-Trimethylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
tert-Butylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

12/31/97

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CC: R. FORTIN

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-1
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-1	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
1,2,4-Trimethylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
sec-Butylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,3-Dichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
4-Isopropyltoluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,4-Dichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
n-Butylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dibromo-3-chloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2,4-Trichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Naphthalene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Hexachlorobutadiene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2,3-Trichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Dibromofluoromethane (Surr.)	108.	%	1.0		EPA 8260	12/12/97	KB	
Toluene-d8 (%)	96.	%	1.0		EPA 8260	12/12/97	KB	
p-Bromofluorobenzene (%)	87.	%	1.0		EPA 8260	12/12/97	KB	
Acetone	<5	µg/L	1.0	5	EPA 8260	12/12/97	KB	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

12/31/97

LJO/jcbjdy/kp(dw)/pag

CC: R. FORTIN

3600 County Road No. 6
P.O. Box 720, Westbrook, ME 04098
Tel: 207-874-2400 Fax: 207-775-6029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-8777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-1
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-1	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
2-Butanone	<5	µg/L	1.0	5	EPA 8260	12/12/97	KB	
4-Methyl-2-pentanone	<3	µg/L	1.0	3	EPA 8260	12/12/97	KB	
2-Hexanone	<4	µg/L	1.0	4	EPA 8260	12/12/97	KB	
Methyltertbutyl ether	290.	µg/L	5.	2.	EPA 8260	12/12/97	KB	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

12/31/97

LJO/jcbjdy/kp(dw)/pag

CC: R. FORTIN

Coast Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: 207-87 -2400 Fax: 20 -775-6029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-5
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-4	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Gasoline Range Organics								1
Gasoline Range Organics	4100.	µg/L	20	10	8015M-GRO	12/16/97	TL	
4-Bromofluorobenzene	116.	%	20		8015M-GRO	12/16/97	TL	
TPH								2,1
TPH	4000.	µg/L	2.0	50	Mod.8100	12/16/97	RH	
o-Terphenyl	75.	%	2.0		Mod.8100	12/16/97	RH	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.
(2) Sample Preparation on 12/09/97 by KGT

12/31/97

LJO/jcbkp(dw)/rh

CC: R. FORTIN

56 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: 207-775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5771 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-6
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
GP-5	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Gasoline Range Organics								1
Gasoline Range Organics	350.	µg/L	5	10	8015M-GRO	12/16/97	TL	
4-Bromofluorobenzene	100.	%	5		8015M-GRO	12/16/97	TL	
TPH								2
TPH	2400.	µg/L	1.0	50	Mod.8100	12/13/97	RH	
o-Terphenyl	86.	%	1.0		Mod.8100	12/13/97	RH	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.
(2) Sample Preparation on 12/09/97 by KGT

12/31/97

LJO/jcbkp(dw)/rh

CC: R. FORTIN

Saco Organic Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5[illegible] Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-7
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
DUP-2	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
TPH								
TPH	4200.	µg/L	2.0	50	Mod.8100	12/16/97	RH	1,2
o-Terphenyl	81.	%	2.0		Mod.8100	12/16/97	RH	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 12/09/97 by KGT
(2) Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.

12/31/97

LJO/jcbkp(dw)/rh
NL09TPW8
CC: R. FORTIN

560 Conley Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-8700 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-10
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED
TRIP BLANK	Aqueous	FORTIN	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
1,1,1-Trichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Carbon tetrachloride	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Benzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Trichloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
cis-1,3-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Dibromomethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromodichloromethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Toluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
trans-1,3-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,2-Trichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,3-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Dibromochloromethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

12/31/97

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CC: R. FORTIN

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 87-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-8
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
DUP-1	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
1,1,1-Trichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Carbon tetrachloride	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Benzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Trichloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
cis-1,3-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Dibromomethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromodichloromethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Toluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
trans-1,3-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,2-Trichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,3-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Dibromochloromethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	

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CC: R. FORTIN

160 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: 207-874-2400 Fax: 207-775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: 603-431-5777 Fax: 603-436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-8
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
DUP-1	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Tetrachloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dibromoethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Chlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,1,2-tetrachloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Ethylbenzene	J0.7	µg/L	1.0	1	EPA 8260	12/12/97	KB	
m-Xylene/p-Xylene	5.	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromoform	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
o-Xylene	7.	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Styrene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,2,2-Tetrachloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2,3-Trichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Isopropylbenzene	1.	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
2-Chlorotoluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
n-Propylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	

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CC: R. FORTIN

341 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5[illegible] Fax: (603) 436-5356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-8
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
DUP-1	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
4-Chlorotoluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,3,5-Trimethylbenzene	13.	µg/L	1.0	1	EPA 8260	12/12/97	KB	
tert-Butylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2,4-Trimethylbenzene	16.	µg/L	1.0	1	EPA 8260	12/12/97	KB	
sec-Butylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,3-Dichlorobenzene	J0.9	µg/L	1.0	1	EPA 8260	12/12/97	KB	
4-Isopropyltoluene	8.	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,4-Dichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
n-Butylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dibromo-3-chloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2,4-Trichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Naphthalene	B11	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Hexachlorobutadiene	B2	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2,3-Trichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	

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CC: R. FORTIN

341 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-8
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
DUP-1	Aqueous	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Dibromofluoromethane (Surr.)	102.	%	1.0		EPA 8260	12/12/97	KB	
Toluene-d8 (%)	102.	%	1.0		EPA 8260	12/12/97	KB	
p-Bromofluorobenzene (%)	94.	%	1.0		EPA 8260	12/12/97	KB	
Acetone	<5	µg/L	1.0	5	EPA 8260	12/12/97	KB	
2-Butanone	<5	µg/L	1.0	5	EPA 8260	12/12/97	KB	
4-Methyl-2-pentanone	<3	µg/L	1.0	3	EPA 8260	12/12/97	KB	
2-Hexanone	<4	µg/L	1.0	4	EPA 8260	12/12/97	KB	
Methyltertbutyl ether	<2.	µg/L	1.0	2.	EPA 8260	12/12/97	KB	

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12/31/97

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CC: R. FORTIN

Saco County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-9
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
BACKGROUND SOIL	Solid	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Arsenic, Total	1.6	mg/Kgdrywt	1.0	0.8	6010/200.7	12/15/97	EM	1
Barium, Total	41.8	mg/Kgdrywt	1.0	0.50	6010/200.7	12/16/97	EM	1
Cadmium, Total	<1.05	mg/Kgdrywt	1.0	1.00	6010/200.7	12/16/97	EM	1
Chromium, Total	22.0	mg/Kgdrywt	1.0	1.50	6010/200.7	12/16/97	EM	1
Lead, Total	13.3	mg/Kgdrywt	1.0	0.5	6010/200.7	12/16/97	EM	1
Mercury, Total	<0.0432	µg/gdrywt	1.0	0.0400	7471	12/10/97	GB	2
Selenium, Total	<1.0	mg/Kgdrywt	1.0	1.0	6010/200.7	12/15/97	EM	1
Silver, Total	<1.6	mg/Kgdrywt	1.0	1.5	6010/200.7	12/15/97	EM	1

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(1) Sample Preparation on 12/12/97 by PLC using 3050
(2) Sample Preparation on 12/08/97 by PLC using 7471

12/31/97

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NL12ICS1
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ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-9
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
BACKGROUND SOIL	Solid	FORTIN	12/04/97	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	92.	wt %	1.0	0.10	CLP/CIP SOW	12/11/97	JF	1

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(1) Sample Preparation on 12/10/97 by JF

12/31/97

LJO/backp(dw)/msm

CC: R. FORTIN

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-10
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED
TRIP BLANK	Aqueous	FORTIN	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
VOAs (8260)								1,2
Dichlorodifluoromethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Chloromethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Vinyl chloride	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Bromomethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Chloroethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
Trichlorofluoromethane	<2	µg/L	1.0	2	EPA 8260	12/12/97	KB	
1,1-Dichloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Methylene chloride	B11	µg/L	1.0	1	EPA 8260	12/12/97	KB	
trans-1,2-Dichloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1-Dichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
cis-1,2-Dichloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
2,2-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromochloromethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Chloroform	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	

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(1) "J" flag denotes an estimated value less than the Laboratory's Practical Quantitation Level.
(2) A result reported with a "B" qualifier indicates the analytes were detected in the laboratory method blank analyzed concurrently with the sample. The concentrations of Methylene Chloride and Naphthalene in the method blank were 3ug/L and 1ug/L respectively.

12/31/97

LJO/jcbjdy/kp(dw)/pag

CC: R. FORTIN

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-10
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED
TRIP BLANK	Aqueous	FORTIN	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
1,1,1-Trichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Carbon tetrachloride	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Benzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Trichloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
cis-1,3-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Dibromomethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromodichloromethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Toluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
trans-1,3-Dichloropropene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,2-Trichloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,3-Dichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Dibromochloromethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	

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340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
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210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

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SO PORTLAND, ME 04106

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REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED
TRIP BLANK	Aqueous	FORTIN	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Tetrachloroethene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dibromoethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Chlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,1,2-tetrachloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Ethylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
m-Xylene/p-Xylene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromoform	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
o-Xylene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Styrene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,1,2,2-Tetrachloroethane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2,3-Trichloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Isopropylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Bromobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
2-Chlorotoluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
n-Propylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	

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CC: R. FORTIN

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-0029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3556

Katahdin
ANALYTICAL SERVICES

Lab Number : WN-3376-10
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CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED
TRIP BLANK	Aqueous	FORTIN	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
4-Chlorotoluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,3,5-Trimethylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
tert-Butylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2,4-Trimethylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
sec-Butylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,3-Dichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
4-Isopropyltoluene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,4-Dichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
n-Butylbenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2-Dibromo-3-chloropropane	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2,4-Trichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Naphthalene	BJ0.9	µg/L	1.0	1	EPA 8260	12/12/97	KB	
Hexachlorobutadiene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	
1,2,3-Trichlorobenzene	<1	µg/L	1.0	1	EPA 8260	12/12/97	KB	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

12/31/97

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CC: R. FORTIN

3 Mill County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: 207-775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5[illegible] Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

CLIENT: RICH FORTIN
JOHN D TEWHEY ASSOC
500 SOUTHBOROUGH DRIVE
SO PORTLAND, ME 04106

Lab Number : WN-3376-10
Report Date: 12/31/97
PO No. : 744
Project : ST. JOHNSBURY,VT

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED
TRIP BLANK	Aqueous	FORTIN	12/05/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Dibromofluoromethane (Surr.)	101.	%	1.0		EPA 8260	12/12/97	KB	
Toluene-d8 (%)	103.	%	1.0		EPA 8260	12/12/97	KB	
p-Bromofluorobenzene (%)	100.	%	1.0		EPA 8260	12/12/97	KB	
Acetone	J3.	µg/L	1.0	5	EPA 8260	12/12/97	KB	
2-Butanone	<5	µg/L	1.0	5	EPA 8260	12/12/97	KB	
4-Methyl-2-pentanone	<3	µg/L	1.0	3	EPA 8260	12/12/97	KB	
2-Hexanone	<4	µg/L	1.0	4	EPA 8260	12/12/97	KB	
Methyltertbutyl ether	<2.	µg/L	1.0	2.	EPA 8260	12/12/97	KB	

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CC: R. FORTIN

340 Gorham Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5771 Fax: (603) 436-3556