



September 6, 1995

Mr. Steve Finneron  
Sherburne School District  
HCR65, Box 48A  
Killington, Vermont 05751

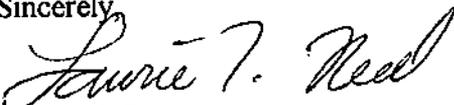
RE: Report on the Investigation of Subsurface Petroleum Contamination  
At Sherburne Elementary School, Sherburne, Vermont (VTDEC Site #95-1839)

Dear Mr. Finneron:

Enclosed, please find the above referenced report. We recommend no additional assessment at this site.

Griffin is pleased to have conducted this work for the Sherburne School District. If you have any questions or we can be of any assistance to you with any matter, please call.

Sincerely,

  
Laurie T. Reed,  
Project Geologist

c. Lynda Provencher, VTDEC

**REPORT ON THE INVESTIGATION  
OF SUBSURFACE  
PETROLEUM CONTAMINATION**

**AT**

**SHERBURNE ELEMENTARY SCHOOL  
SCHOOL HOUSE ROAD  
SHERBURNE, VERMONT**

**VTDEC SITE #95-1839**

**AUGUST, 1995**

**PREPARED FOR:**

**Sherburne School District  
HCR 65, Box 48A  
Killington, Vermont 05751**



**Griffin International Inc.  
PO Box 943 / 19 Commerce Street  
Williston, VT 05495  
(802) 865-4288**

**Griffin Project #7954722**

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## I. INTRODUCTION

This report describes the investigation of subsurface petroleum contamination at the Sherburne Elementary School located on School House Road in Sherburne, Vermont. This investigation was conducted by Griffin International Inc. (Griffin) for the Sherburne School District according to Griffin's Work Plan dated July 28, 1995.

The Sherburne School District entered into the Site Investigation Expressway Program, and this investigation was initiated by the Sherburne School District after the presence of subsurface petroleum contamination was identified at the site during the removal of a 10,000 gallon capacity fuel oil underground storage tank (UST) and related piping on July 19 through July 24, 1995.

No significant petroleum contamination was present in the vicinity of the UST, but on July 21, 1995, during the inspection of the pipe line excavation, discontinuous pools of free product were observed floating on perched groundwater in one location of the pipeline excavation. The product was recovered with sorbent pads. Soil along a 20 foot long zone of the trench appeared to be contaminated with No. 2 oil. About 5 cubic yards of soil were removed and the limits of the contamination were defined at depth and towards the west of the trench where sand and gravel fill ended at its contact with the underlying and adjacent silty sand confining layer. The contaminated soil was also defined in the trench north of the area where product was observed. The free product and contaminated soil appeared to be confined to a 2 foot thick layer of sand and gravel fill in the trench. Concentrations of volatile organic compounds (VOCs) detected by photo ionization detector (PID) ranged from 3 to 110 parts per million (ppm) in the area of observed contamination. The contamination was not defined towards the east of the trench on July 21, 1995. Excavation was temporarily stopped to make appropriate plans for further actions. On July 24, 1995, the excavation was continued. Limits of the contamination were defined in all directions, and all significantly contaminated soil was removed. The remedial excavation extended from approximately 5 feet north of the northwest corner of the school building for approximately 30 feet towards the north and averaged 7 feet wide and 4 feet deep.

About 30 cubic yards of petroleum contaminated soil were removed and stockpiled on and covered with 6 mil plastic sheeting. The soil was subsequently removed from the site and was recycled via asphalt batching.

Due to the very close proximity of the school supply well to the area of contamination, this limited site assessment was performed to determine if all significant contamination in the vicinity of the supply well was removed and to determine if the supply well had been impacted by the contamination.

## II. SITE DESCRIPTION

The site is located in a mainly residential area at the end of School House Road in the Town of Sherburne, Vermont (See Site Location Map in Appendix A.). The site is at an approximate elevation of 1,820 feet above sea level. Topography west of the school slopes steeply upward, and topography east of the school slopes steeply downward. Surface runoff at the site drains off the site towards the east. The general vicinity drains into an intermittent creek which flows from west to east and is located directly south of the site. This creek flows to the Roaring Brook located approximately 1/4 mile east of the site.

The geology of the site consists of metamorphic bedrock of the Pre-Cambrian Mount Holly Complex overlain by glacial till. According to records at the VTDEC Water Supply Division, overburden in the vicinity of the site is about 40 to 50 feet thick.

The site is abutted to the south by wooded land and in all other directions by residential properties. Water for the school is supplied by a supply well located directly north of the school building and approximately 30 feet southeast of the area of the removed petroleum contamination.

## III. INVESTIGATIVE PROCEDURES

Two soil samples were collected from the limits of the excavation to determine the levels of residual petroleum contamination. In addition, water samples were collected from the school supply well. A survey of the area was conducted in the vicinity of the site to identify possible receptors of petroleum contamination.

### A. Soil Sampling and Analyses

Twelve soil samples were collected on July 24, 1995 from the limits of the remedial excavation and screened for VOCs using a PID. The VOC concentrations as indicated by PID ranged from 0.4 to 4.5 ppm and averaged 1.7 ppm. All of the samples were composited into one sample. In addition, sample (E2) was collected from the southeast side of the excavation at the horizon of the perched water table. The composite sample and sample E2 were submitted to Endyne, Inc. where they were analyzed for VOCs via EPA Method 8020 and for total petroleum hydrocarbons (TPH) via modified EPA Method 8100. The samples were collected via Griffin's Soil Sampling Protocol which complies with state and industry standards. No contaminants were identified above method detection limits in either soil sample. Laboratory results are attached in Appendix B.

## B. Supply Sampling and Analyses

On July 31, 1995, Griffin collected drinking water samples from the school supply well. Two samples (one duplicate) were submitted to the Vermont Department of Health Laboratory where they were analyzed for VOCs via EPA Method 524.2. One sample was submitted to Endyne, Inc. where it was analyzed for TPH via EPA Method 418.1. All samples were collected according to Griffin's Supply Well Sampling Protocol which complies with state and industry standards. No contaminants were identified above method detection limits in any of the samples collected from the school supply well. Laboratory results are attached in Appendix C.

## IV. SOIL DISPOSAL

The Sherburne School site was determined to be unsuitable for the storage and passive treatment of petroleum contaminated soils. Permission was granted by the VTDEC on August 8, 1995, in a telephone conversation with Lynda Provencher, to remove the contaminated soils from the site so that they could be recycled into asphalt.

On July 31, 1995, a composite soil sample was made from eight discrete samples collected from the petroleum contaminated soil stockpile. The sample was submitted to Eastern Analytical, Inc. for comprehensive analyses required by the State of New Hampshire for asphalt batching of petroleum contaminated soils. Analyses indicated the contaminant to be fuel oil and soils to be acceptable for asphalt batching. Laboratory results are attached in Appendix D.

On August 14, 1995, 48.75 tons of contaminated soils were moved from the site to the MTS, Inc. asphalt plant located in Chichester, New Hampshire. The soils were subsequently incorporated into bituminous asphaltic cold mix product on August 18, 1995. Copies of the Certificate of Destruction and Bills of Lading for the soils are attached in Appendix E.

## V. RECEPTOR SURVEY AND RISK ASSESSMENT

Griffin conducted a visual survey of the site to identify local potential receptors of subsurface petroleum contaminants. In addition, supply well records were reviewed at the VTDEC Water Supply Division on July 26, 1995.

Potential receptors identified are the following:

- Surface water located south and east of the site.
- Groundwater tapped by several drinking water supply wells.
- Perched shallow groundwater.
- The school building.

At least nine supply wells are located within 1,000 feet of the Sherburne School. The school supply well is located about 30 feet southeast of the area of the No. 2 fuel oil release. State records indicate the following details regarding the school supply well:

- The well was drilled on June 22, 1970.
- The estimated yield of the well is 12 gpm.
- The well is 297 feet deep.
- 39 feet of overburden is present in the vicinity of the well.
- The well is cased to a depth of 50 feet below grade.

The water level in the supply well is relatively shallow which may indicate a upward hydraulic gradient in the bedrock aquifer. The approximate 40 feet of dense glacial till overburden prevented vertical migration of petroleum contamination in the area of the release. Since all significantly contaminated soils were removed, there is no remaining risk of impact to the supply well.

Perched shallow groundwater in the area of the release was impacted, but all of the contaminated water which was perched on the dense glacial till was removed during excavation of the contaminated soils. The soil sample collected from the horizon of the perched groundwater indicated no detectable petroleum compounds.

Since all significant petroleum contamination was removed, there is no remaining risk of impact to any potential receptors.

## **VI. CONCLUSIONS**

On the basis of this investigation, Griffin has concluded the following:

- 1) There has been a release of petroleum product (No. 2 fuel oil) at this site. The release appeared to have originated from the suction supply line which led from the former UST to the boiler room of the school building. Based on the concentration of fuel in the soil reported in the analytical results (Appendix D) and the density of fuel oil, it is calculated that approximately 85 gallons of No. 2 oil were released into the soils which were removed.
- 2) Analyses indicated that all significantly contaminated soils and contaminated perched shallow groundwater were removed. Therefore, no sensitive receptors remain at risk from the release.
- 3) Analyses indicate that the school supply well has not been impacted. No sensitive receptors (other than soil and perched shallow groundwater) were impacted by the release.

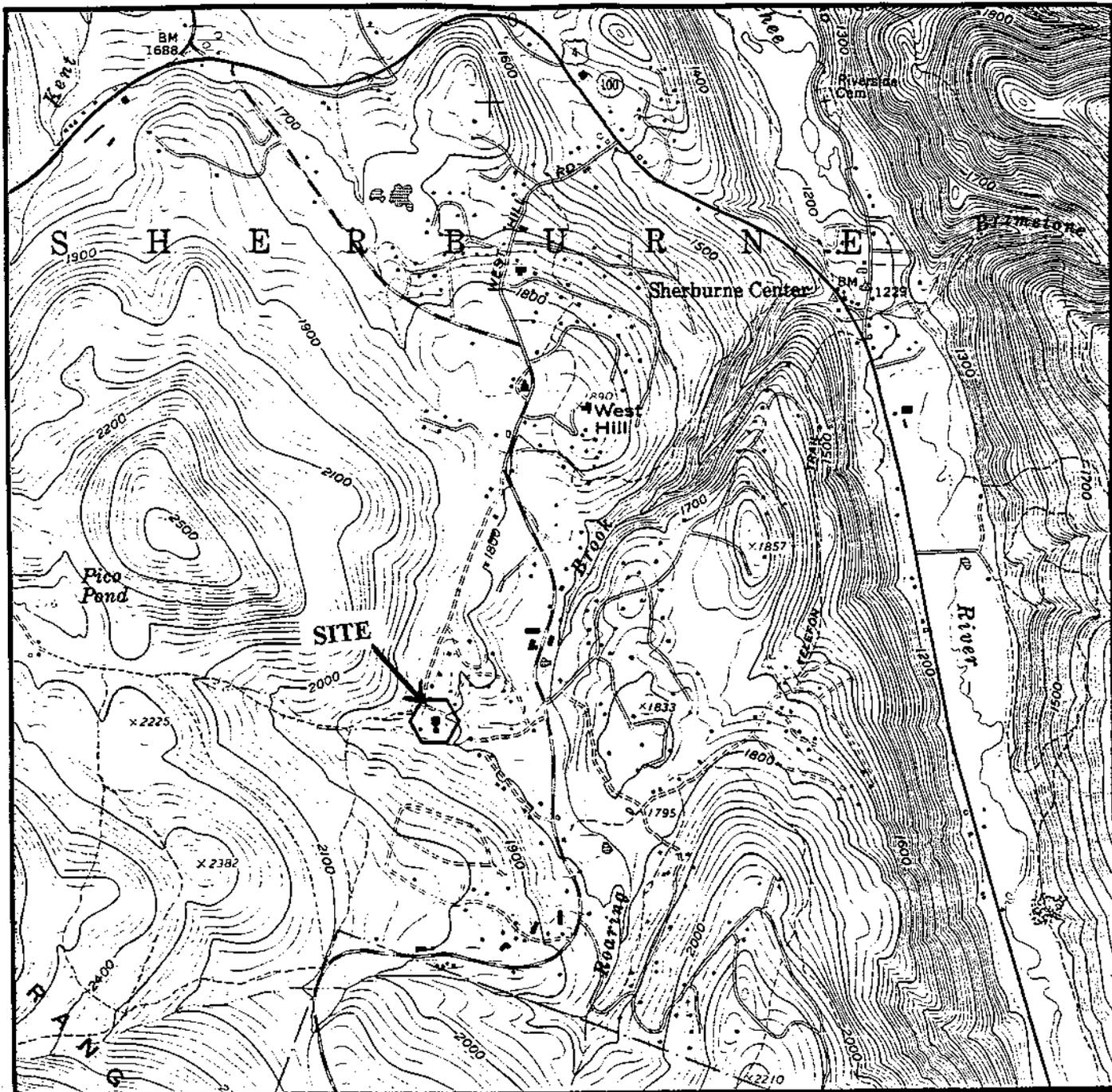
4) All petroleum contaminated soils removed from the subsurface have been recycled into asphaltic cold mix product.

## **VII RECOMMENDATIONS**

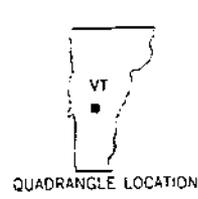
No additional monitoring or investigation is necessary at this site. We recommend that the VTDEC, Hazardous Materials Management Division, Sites Management Section designate the Sherburne Elementary School "sites management activities complete" (SMAC) and remove the site from the Vermont Hazardous Wastes Sites List.

**APPENDIX A**

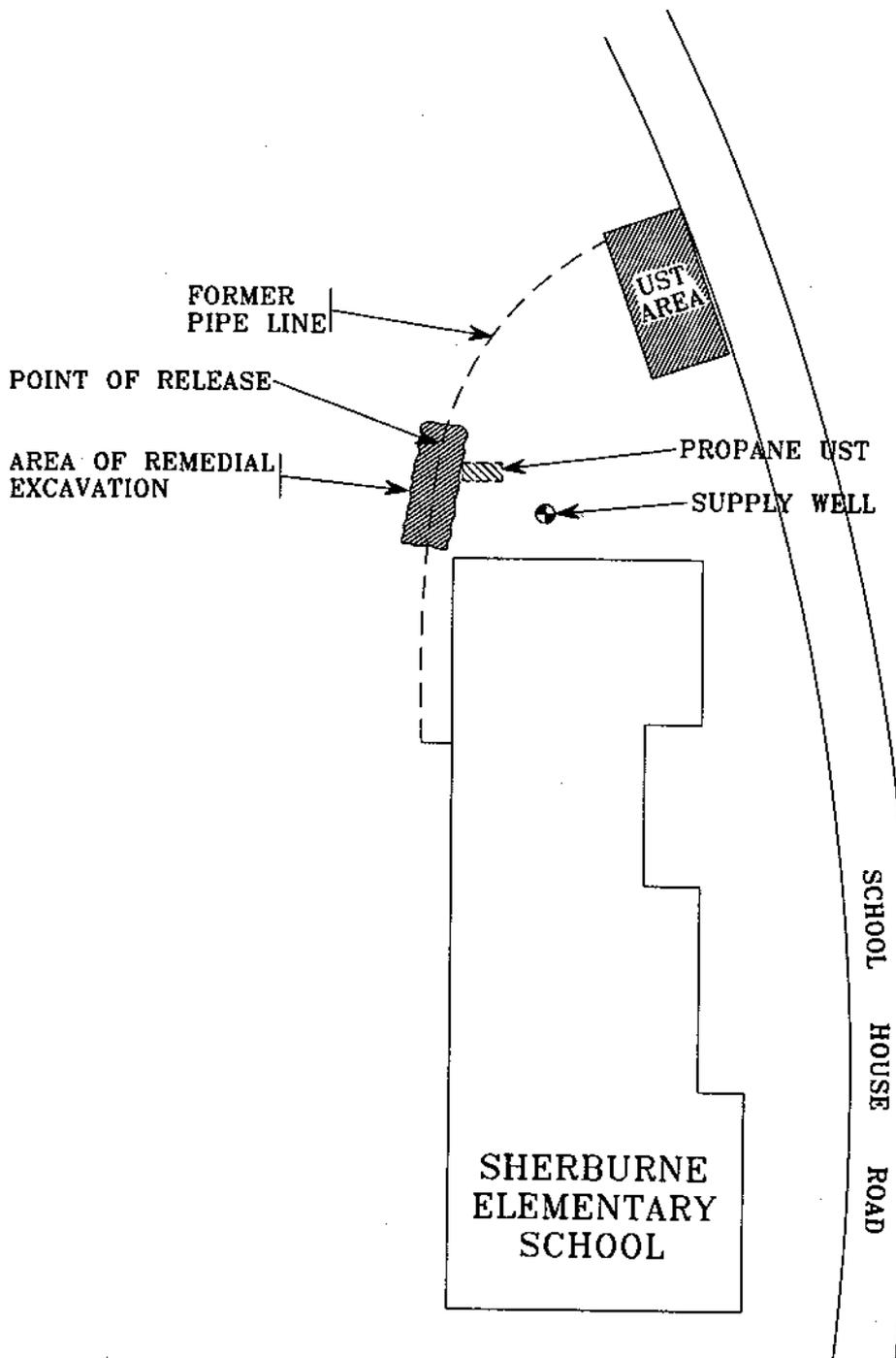
SITE LOCATION MAP  
SITE SKETCH



Site Location Map  
 Sherburne Elementary School  
 School House Road  
 Sherburne, Vermont



Source: USGS Pico Peak, Vermont Quadrangle  
 1:24,000 Dated: 1968, Photo Revised: 1980



JOB #: 7954722



**SHERBURNE ELEMENTARY SCHOOL**

SHERBURNE,

VERMONT

**SITE SKETCH**

DATE: 9/5/95

DWG.#: 2

SCALE: NONE

DRN.:SB

APP.:LR

**APPENDIX B**

SOIL LABORATORY RESULTS



**ENDYNE, INC.**

Laboratory Services

32 James Brown Drive  
Williston, Vermont 05495  
(802) 879-4333  
FAX 879-7103

REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International  
PROJECT NAME: Sherburne School  
DATE REPORTED: August 7, 1995  
DATE SAMPLED: July 24, 1995

PROJECT CODE: SHER1569  
REF. #: 77,382 - 77,383

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody record.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy were monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate data was determined to be within Laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.  
Laboratory Director

enclosures

RECEIVED



**ENDYNE, INC.**

**Laboratory Services**

32 James Brown Drive  
Williston, Vermont 05495  
(802) 879-4333  
FAX 879-7103

**LABORATORY REPORT**

**EPA METHOD 8020 COMPOUNDS -- PURGEABLE AROMATICS**

CLIENT: Griffin International  
PROJECT NAME: Sherburne School  
REPORT DATE: August 7, 1995  
SAMPLER: L. Reed  
DATE SAMPLED: July 24, 1995  
DATE RECEIVED: July 25, 1995

PROJECT CODE: SHER1569  
ANALYSIS DATE: August 2, 1995  
STATION: E2  
REF.#: 77,382  
SAMPLED: 17:30

<u>Parameter</u>	<u>Detection Limit (ug/kg)</u>	<u>Concentration As Received (ug/kg)</u>
Benzene	20	ND <sup>1</sup>
Chlorobenzene	20	ND
1,2-Dichlorobenzene	20	ND
1,3-Dichlorobenzene	20	ND
1,4-Dichlorobenzene	20	ND
Ethylbenzene	20	ND
Toluenes	20	ND
Total Xylenes	20	ND
MTBE	200	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

BROMOBENZENE SURROGATE RECOVERY: 101%

PERCENT SOLIDS: 87%

NOTES:

1 None detected

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**ENDYNE, INC.**

Laboratory Services

32 James Brown Drive  
Williston, Vermont 05495  
(802) 879-4333  
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8020 COMPOUNDS -- PURGEABLE AROMATICS

CLIENT: Griffin International  
PROJECT NAME: Sherburne School  
REPORT DATE: August 7, 1995  
SAMPLER: L. Reed  
DATE SAMPLED: July 24, 1995  
DATE RECEIVED: July 25, 1995

PROJECT CODE: SHER1569  
ANALYSIS DATE: August 2, 1995  
STATION: (E1 - E12) Composite  
REF.#: 77,383  
SAMPLED: 17:30

<u>Parameter</u>	<u>Detection Limit (ug/kg)</u>	<u>Concentration As Received (ug/kg)</u>
Benzene	20	ND <sup>1</sup>
Chlorobenzene	20	ND
1,2-Dichlorobenzene	20	ND
1,3-Dichlorobenzene	20	ND
1,4-Dichlorobenzene	20	ND
Ethylbenzene	20	ND
Toluenes	20	ND
Total Xylenes	20	ND
MTBE	200	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

BROMOBENZENE SURROGATE RECOVERY: 101%

PERCENT SOLIDS: 88%

NOTES:

1 None detected

RECEIVED AUG - 9 1995



32 James Brown Drive  
Williston, Vermont 05495  
(802) 879-4333

14348

77382-77385 CHAIN-OF-CUSTODY RECORD

Project Name: <u>Sherburne School</u> Site Location: <u>Sherburne, VT</u>	Reporting Address: <u>PO Box 943, Williston, VT 05495</u>	Billing Address: <u>Same</u>
Endyne Project Number: <u>SHER 1569</u>	Company: <u>Griffin</u> Contact Name/Phone #: <u>Laurie Reed/8654288</u>	Sampler Name: <u>L. Reed</u> Phone #: <u>8654288</u>

Lab #	Sample Location	Matrix	G R A B	C O M P	Date/Time	Sample Containers		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
						No.	Type/Size				
77382	E2	Soil	X		7-24-95 17:30	2	250ml glass	602	27/30		
77383	(E1-E12) composite	"		X	17:30	"	"	602	"		

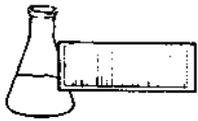
Relinquished by: Signature <u>[Signature]</u>	Received by: Signature <u>Beth Ward</u>	Date/Time <u>7-25-95 3:45</u>
Relinquished by: Signature <u>Beth Ward</u>	Received by: Signature <u>[Signature]</u>	Date/Time <u>7-25-95 7:55</u>

New York State Project: Yes  No

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8018/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD <sub>5</sub>	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCPLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify): <u>TPH via Mod. 8100</u>										

RECEIVED AIR - 9 1995



**ENDYNE, INC.**

**Laboratory Services**

32 James Brown Drive  
Williston, Vermont 05495  
(802) 879-4333  
FAX 879-7103

**REPORT OF LABORATORY ANALYSIS**

**CLIENT:** Griffin International  
**PROJECT NAME:** Sherburne School  
**DATE REPORTED:** August 8, 1995  
**DATE SAMPLED:** July 24, 1995

**PROJECT CODE:** SHER1570  
**REF. #:** 77,384 - 77,385

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody record.

Chain of custody did not indicate sample preservation.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

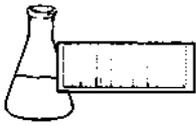
Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy were monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Reviewed by,

Harry B. Locker, Ph.D.  
Laboratory Director

enclosures



**ENDYNE, INC.**

Laboratory Services

32 James Brown Drive  
Williston, Vermont 05495  
(802) 879-4333  
FAX 879-7103

LABORATORY REPORT

TOTAL PETROLEUM HYDROCARBONS (TPH) BY MODIFIED EPA METHOD 8100

DATE: August 8, 1995  
CLIENT: Griffin International  
PROJECT: Sherburne School  
PROJECT CODE: SHER1570  
COLLECTED BY: L. Reed  
DATE SAMPLED: July 24, 1995  
DATE RECEIVED: July 25, 1995

<u>Reference #</u>	<u>Sample ID</u>	<u>Concentration (mg/kg as received)<sup>1</sup></u>
77,384	E2; 17:30	ND <sup>2</sup>
77,385	(E1-E12) Composite; 17:30	ND

Notes:

- 1 Method detection limit is 5 mg/kg.
- 2 None Detected



**APPENDIX C**

SUPPLY WELL LABORATORY RESULTS



VE: **V96-037** HEALTH LABORATORY  
 R AVENUE  
 NT 05402-0070  
 863-7335 800-660-9997

LAB NO.: **V96 031**  
 DATE RECEIVED:

**WATER SAMPLE COLLECTION INFORMATION**

**Aug 1 1 17 PM '95**

REPORT TO BE SENT TO

GRIFFIN INTERNATIONAL, INC.  
 P.O. BOX 943  
 FOR SHERBURNE ELEM.  
 WILLISTON, VT 05495

DATE OF COLLECTION <b>Aug 31 95</b> MO DAY YR	TIME OF COLLECTION <b>3:25</b> (CIRCLE AM OR PM) <b>PM</b>	SAMPLE TAKEN IN TOWN OF <b>SHERBURNE</b>	SAMPLER <b>Tom Beck Griffin Int</b>	DAY PHONE NO. (INCLUDE AREA C) <b>502 805-4280</b>
---	--	---	--	---

SUBMITTERS REMARKS

LABORATORY REMARKS  
 KIT FOR VOC - PUBLIC WATER SUPPLIES --  
 EPA METHOD 524.2  
*3 samples ok  
 1 trip w/ kibble*

**NOTE: INCOMPLETE INFORMATION ON THIS REQUEST FORM  
 MAY RESULT IN THE EXAMINATION BEING DELAYED OR  
 THE SPECIMEN BEING REJECTED.**

K#: 9381524  
 OA  
 U#: 25884 872795(M)  
 CA: 5207110/27520

**SECTION BELOW FOR PUBLIC WATER USE ONLY**

WSID	WATER SYSTEM NAME	SAMPLE LOCATION
------	-------------------	-----------------

**SAMPLER TITLE:**  
 OPERATOR  HEALTH DEPT.  HEALTH OFFICER  STATE AGENCY  OTHER

**PURPOSE OF SAMPLE:**  
 TOTAL COLIFORM SAMPLE  ROUTINE  REPEAT  REPLACEMENT  OTHER

ALL OTHER SAMPLES  COMPLIANCE MONITORING  REPEAT  OTHER

TYPE OF SAMPLE:  SOURCE  DISTRIBUTION  OTHER

**FIELD DATA:**  
 CHLORINE RESIDUAL: \_\_\_\_\_ mg/l FREE Cl<sub>2</sub> \_\_\_\_\_ mg/l TOTAL Cl<sub>2</sub> NOT:  CHLORINATED  MEASURED  
 TEMP: \_\_\_\_\_ ° F OR C (CIRCLE F OR C)

**SAMPLE NOT ANALYZED BECAUSE:**  
 NO COLLECTION DATE  INSUFFICIENT SAMPLE  BROKEN IN TRANSIT  IMPROPER SAMPLE CONTAINER  FEE REQUIRED FOR ANALYSIS  WE WERE UNABLE TO COMPLY WITH TESTING OF THIS SAMPLE  
 TOO OLD TO TEST

GRIFFIN INTERNATIONAL, INC.  
 P.O. BOX 943  
 FOR SHERBURNE ELEM.  
 WILLISTON, VT 05495

**FOR LABORATORY USE ONLY**

PRESERVATIVE:  NONE  COOL < 4°C  
 HCl  HNO<sub>3</sub>  H<sub>2</sub>SO<sub>4</sub>  
 SODIUM THIOSULFATE  HgCl<sub>2</sub>  ASCORBIC ACID

**RECEIVED AUG 1 4 1995**

VERMONT DEPARTMENT OF HEALTH LABORATORY  
195 COLCHESTER AVENUE, P.O. BOX 1125  
BURLINGTON, VT 05402-1125  
(800)660-9997 OR (802)863-7336

ANALYSIS OF WATER FOR VOLATILE ORGANIC COMPOUNDS  
VDH KIT OA

LABORATORY RESULTS OF ANALYSIS

LABORATORY NUMBER: V96-0037

LABORATORY RESULTS: The laboratory test for volatile organic chemicals by E.P.A. Method 524.2, GC/MS has not detected the presence of any of the compounds listed on the attached sheet of this report.

LABORATORY NOTE: Detected is defined as greater than the method quantification limit.

Date Reported AUG 11 1995

Reviewed by 

Please see other page for collection information.

VERMONT DEPARTMENT OF HEALTH LABORATORY  
195 COLCHESTER AVENUE, BURLINGTON, VT 05402-1125  
(800) 660-9997 or (802) 863-7336

VOLATILE ORGANIC COMPOUNDS TESTED  
IN VDH KIT OA  
Report Supplement

The EPA Method 524.2 (GC/MS) analysis performed on the water samples for volatile organic compounds includes testing for the following compounds. The Method Quantification Limit for all compounds listed is 0.5 µg/l - micrograms/liter (ppb - parts per billion) unless specifically noted.

COMPOUND

Methyl tert-butyl ether  
Benzene  
Bromobenzene  
Bromochloromethane  
Bromodichloromethane  
Bromoform  
Bromomethane  
n-Butylbenzene  
sec-Butylbenzene  
tert-Butylbenzene  
Carbon tetrachloride  
Chlorobenzene  
Chlorodibromomethane  
Chloroethane  
Chloroform  
Chloromethane  
2-Chlorotoluene  
4-Chlorotoluene  
Dibromomethane  
m-Dichlorobenzene  
o-Dichlorobenzene  
p-Dichlorobenzene  
Dichlorodifluoromethane  
1,1-Dichloroethane  
1,2-Dichloroethane  
1,1-Dichloroethene  
trans-1,2-Dichloroethene  
cis-1,2-Dichloroethene  
1,2-Dichloropropane

COMPOUND

2,2-Dichloropropane  
1,3-Dichloropropane  
1,1-Dichloropropene  
cis-1,3-Dichloropropene  
trans-1,3-Dichloropropene  
Ethylbenzene  
Fluorotrichloromethane  
Hexachlorobutadiene  
Isopropylbenzene  
p-Isopropyltoluene  
Methylene chloride  
Naphthalene  
n-Propylbenzene  
Styrene  
1,1,1,2-Tetrachloroethane  
1,1,2,2-Tetrachloroethane  
Tetrachloroethylene  
Toluene  
1,2,3-Trichlorobenzene  
1,2,4-Trichlorobenzene  
1,1,1-Trichloroethane  
1,1,2-Trichloroethane  
Trichloroethylene  
1,2,3-Trichloropropane  
1,2,4-Trimethylbenzene  
1,3,5-Trimethylbenzene  
Vinyl chloride  
m+p-Xylene  
o-Xylene

EPA Method 524.2 (GC/MS)

QEM 307 AUG 1993



VERMONT DEPARTMENT OF HEALTH LABORATORY

V96- 038

R AVENUE  
T 05402-0070  
660-9997

LAB NO. 190

DATE RECEIVED:

WATER SAMPLE COLLECTION INFORMATION

AUG 1 19 71 95

REPORT TO BE SENT TO  
GRIFFIN INTERNATIONAL, INC.  
P.O. BOX 943  
FOR SHERBURNE ELEM.  
WILLISTON, VT 05495

DATE OF COLLECTION AUG 31 1995 MO DAY YR	TIME OF COLLECTION 3:15 CIRCLE AM OR PM AM	SAMPLE TAKEN IN TOWN OF SHERBURNE	SAMPLER Tina Egan	DAY PHONE NO. (INCLUDE AREA CODE) 802 365-1111
--	---	--------------------------------------	----------------------	---

SUBMITTERS REMARKS

LABORATORY REMARKS  
KIT FOR VOC - PUBLIC WATER SUPPLY --  
EPA METHOD 524.2  
3 samples ok  
1 Turbidity

NOTE: INCOMPLETE INFORMATION ON THIS REQUEST FORM  
MAY RESULT IN THE EXAMINATION BEING DELAYED OR  
THE SPECIMEN BEING REJECTED.

K#: 9381525  
0A  
Q#: 25884 072795(W)  
P#: 52471 11/07573

SECTION BELOW FOR PUBLIC WATER USE ONLY

WATER SYSTEM NAME	SAMPLE LOCATION
-------------------	-----------------

SAMPLER TITLE:  
 OPERATOR     HEALTH DEPT.     HEALTH OFFICER     STATE AGENCY     OTHER

PURPOSE OF SAMPLE:  
 TOTAL COLIFORM SAMPLE     ROUTINE     REPEAT     REPLACEMENT     OTHER

ALL OTHER SAMPLES  
 COMPLIANCE MONITORING     REPEAT     OTHER

TYPE OF SAMPLE:  
 SOURCE     DISTRIBUTION     OTHER

FIELD DATA:  
 CHLORINE RESIDUAL: \_\_\_\_\_ mg/l FREE Cl<sub>2</sub>    \_\_\_\_\_ mg/l TOTAL Cl<sub>2</sub>    NOT:  CHLORINATED     MEASURED  
 TEMP: \_\_\_\_\_ ° F OR C (CIRCLE F OR C)

SAMPLE NOT ANALYZED BECAUSE:  
 NO COLLECTION DATE     INSUFFICIENT SAMPLE     BROKEN IN TRANSIT     IMPROPER SAMPLE CONTAINER     FEE REQUIRED FOR ANALYSIS     WE WERE UNABLE TO COMPLETE TESTING OF THIS SAMPLE  
 TOO OLD TO TEST

GRIFFIN INTERNATIONAL, INC.  
P.O. BOX 943  
FOR SHERBURNE ELEM.  
WILLISTON, VT 05495

FOR LABORATORY USE ONLY

PRESERVATIVE:  NONE     COOL < 4°C  
 HCl     HNO<sub>3</sub>     H<sub>2</sub>SO<sub>4</sub>  
 SODIUM THIOSULFATE     HgCl<sub>2</sub>     ASCORBIC ACID

VERMONT DEPARTMENT OF HEALTH LABORATORY  
195 COLCHESTER AVENUE, P.O. BOX 1125  
BURLINGTON, VT 05402-1125  
(800)660-9997 OR (802)863-7336

ANALYSIS OF WATER FOR VOLATILE ORGANIC COMPOUNDS  
VDH KIT OA

LABORATORY RESULTS OF ANALYSIS

LABORATORY NUMBER: V96-0038

LABORATORY RESULTS: The laboratory test for volatile organic chemicals by E.P.A. Method 524.2, GC/MS has not detected the presence of any of the compounds listed on the attached sheet of this report.

LABORATORY NOTE: Detected is defined as greater than the method quantification limit.

Date Reported AUG 11 1995

Reviewed by *je*

Please see other page for collection information.

VERMONT DEPARTMENT OF HEALTH LABORATORY  
195 COLCHESTER AVENUE, BURLINGTON, VT 05402-1125  
(800) 660-9997 or (802) 863-7336

VOLATILE ORGANIC COMPOUNDS TESTED  
IN VDH KIT OA  
Report Supplement

The EPA Method 524.2 (GC/MS) analysis performed on the water samples for volatile organic compounds includes testing for the following compounds. The Method Quantification Limit for all compounds listed is 0.5 µg/l - micrograms/liter (ppb - parts per billion) unless specifically noted.

COMPOUND

Methyl tert-butyl ether  
Benzene  
Bromobenzene  
Bromochloromethane  
Bromodichloromethane  
Bromoform  
Bromomethane  
n-Butylbenzene  
sec-Butylbenzene  
tert-Butylbenzene  
Carbon tetrachloride  
Chlorobenzene  
Chlorodibromomethane  
Chloroethane  
Chloroform  
Chloromethane  
2-Chlorotoluene  
4-Chlorotoluene  
Dibromomethane  
m-Dichlorobenzene  
o-Dichlorobenzene  
p-Dichlorobenzene  
Dichlorodifluoromethane  
1,1-Dichloroethane  
1,2-Dichloroethane  
1,1-Dichloroethene  
trans-1,2-Dichloroethene  
cis-1,2-Dichloroethene  
1,2-Dichloropropane

COMPOUND

2,2-Dichloropropane  
1,3-Dichloropropane  
1,1-Dichloropropene  
cis-1,3-Dichloropropene  
trans-1,3-Dichloropropene  
Ethylbenzene  
Fluorotrichloromethane  
Hexachlorobutadiene  
Isopropylbenzene  
p-Isopropyltoluene  
Methylene chloride  
Naphthalene  
n-Propylbenzene  
Styrene  
1,1,1,2-Tetrachloroethane  
1,1,2,2-Tetrachloroethane  
Tetrachloroethylene  
Toluene  
1,2,3-Trichlorobenzene  
1,2,4-Trichlorobenzene  
1,1,1-Trichloroethane  
1,1,2-Trichloroethane  
Trichloroethylene  
1,2,3-Trichloropropane  
1,2,4-Trimethylbenzene  
1,3,5-Trimethylbenzene  
Vinyl chloride  
m+p-Xylene  
o-Xylene

EPA Method 524.2 (GC/MS)

QEM 307 AUG 1993



**VERMONT DEPARTMENT OF HEALTH LABORATORY**  
 195 COLCHESTER AVENUE  
 BURLINGTON, VERMONT 05402-0070  
 863-7335 800-660-9997  
**WATER SAMPLE COLLECTION INFORMATION**

LAB NO.:

DATE RECEIVED:

REPORT TO BE SENT TO

GRIFFIN INTERNATIONAL, INC.  
 P.O. BOX 943  
 FOR SHERBURNE ELEM.  
 WILLISTON,, VT 05495

DATE OF COLLECTION

TIME OF COLLECTION

SAMPLE TAKEN IN TOWN OF

SAMPLER

DAY PHONE NO. (INCLUDE AREA C

JUL 31 98  
 MO. DAY YR

5:15 AM  
 (CIRCLE AM OR PM)

SHERBURNE

Tom Bork  
 GRIFFIN INT

802  
 865-428

SUBMITTERS REMARKS

LABORATORY REMARKS

KIT FOR VOC - PUBLIC WATER SUPPLIES --  
 EPA METHOD 524.2

**NOTE: INCOMPLETE INFORMATION ON THIS REQUEST FORM  
 MAY RESULT IN THE EXAMINATION BEING DELAYED OR  
 THE SPECIMEN BEING REJECTED.**

K#: 9381525  
 0A  
 O#: 25884 072795(W)  
 P#: 5207110/27578

**SECTION BELOW FOR PUBLIC WATER USE ONLY**

WSID

WATER SYSTEM NAME

SAMPLE LOCATION

**SAMPLER TITLE:**

OPERATOR  HEALTH DEPT.  HEALTH OFFICER  STATE AGENCY  OTHER

**PURPOSE OF SAMPLE:**

TOTAL COLIFORM SAMPLE  ROUTINE  REPEAT  REPLACEMENT  OTHER

**ALL OTHER SAMPLES**

COMPLIANCE MONITORING  REPEAT  OTHER

**TYPE OF SAMPLE:**

SOURCE  DISTRIBUTION  OTHER

**FIELD DATA:**

CHLORINE RESIDUAL: \_\_\_\_\_ mg/l FREE Cl<sub>2</sub> \_\_\_\_\_ mg/l TOTAL Cl<sub>2</sub> NOT:  CHLORINATED  MEASURED  
 TEMP: \_\_\_\_\_ ° F OR C (CIRCLE F OR C)

**SAMPLE NOT ANALYZED BECAUSE:**

NO COLLECTION DATE  INSUFFICIENT SAMPLE  BROKEN IN TRANSIT  IMPROPER SAMPLE CONTAINER  FEE REQUIRED FOR ANALYSIS  WE WERE UNABLE TO COMPLE TESTING OF THIS SAMPLE  
 TOO OLD TO TEST

GRIFFIN INTERNATIONAL, INC.  
 P.O. BOX 943  
 FOR SHERBURNE ELEM.  
 WILLISTON,, VT 05495

**FOR LABORATORY USE ONLY**

PRESERVATIVE:  NONE  COOL < 4°C  
 HCl  HNO<sub>3</sub>  H<sub>2</sub>SO<sub>4</sub>  
 SODIUM  ASCORBIC



# VERMONT DEPARTMENT OF HEALTH LABORATORY

195 COLCHESTER AVENUE  
BURLINGTON, VERMONT 05402-0070  
863-7335 800-660-9997

LAB NO.:

DATE RECEIVED:

## WATER SAMPLE COLLECTION INFORMATION

PORT TO BE SENT TO

R. GIFFIN INTERNATIONAL, INC.  
P.O. BOX 943  
SHERBURNE ELEM.  
WILLISTON, VT 05495

DATE OF COLLECTION	TIME OF COLLECTION	SAMPLE TAKEN IN TOWN OF	SAMPLER	DAY PHONE NO. (INCLUDE AREA CODE)
7/31/95 DAY YR	2:25 PM (CIRCLE AM OR PM)	SHERBURNE	Tom Beck Griffin Int	502 805-4250

EXAMINER'S REMARKS

LABORATORY REMARKS

KIT FOR VOC - PUBLIC WATER SUPPLIES --  
EPA METHOD 524.2

**NOTE: INCOMPLETE INFORMATION ON THIS REQUEST FORM  
MAY RESULT IN THE EXAMINATION BEING DELAYED OR  
THE SPECIMEN BEING REJECTED.**

K#: 9381524  
OA  
Q#: 25884 072795(W)  
P#: 5207110/27578

### SECTION BELOW FOR PUBLIC WATER USE ONLY

SID	WATER SYSTEM NAME	SAMPLE LOCATION

SAMPLER TITLE:

OPERATOR     HEALTH DEPT.     HEALTH OFFICER     STATE AGENCY     OTHER \_\_\_\_\_

PURPOSE OF SAMPLE:

TOTAL COLIFORM SAMPLE  ROUTINE     REPEAT     REPLACEMENT     OTHER \_\_\_\_\_

ALL OTHER SAMPLES

TYPE OF SAMPLE:

COMPLIANCE MONITORING     REPEAT     OTHER \_\_\_\_\_  
 SOURCE     DISTRIBUTION     OTHER \_\_\_\_\_

FIELD DATA:

CHLORINE RESIDUAL: \_\_\_\_\_ mg/l FREE Cl<sub>2</sub>    \_\_\_\_\_ mg/l TOTAL Cl<sub>2</sub>    NOT:  CHLORINATED     MEASURED

TEMP: \_\_\_\_\_ ° F OR C (CIRCLE F OR C)

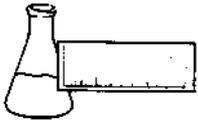
SA M P L E N O T A N A L Y Z E D B E C A U S E:

NO COLLECTION DATE     INSUFFICIENT SAMPLE     BROKEN IN TRANSIT     IMPROPER SAMPLE CONTAINER     FEE REQUIRED FOR ANALYSIS     WE WERE UNABLE TO COMPLETE TESTING OF THIS SAMPLE  
 TOO OLD TO TEST

G. GIFFIN INTERNATIONAL, INC.  
P.O. BOX 943  
SHERBURNE ELEM.  
WILLISTON, VT 05495

### FOR LABORATORY USE ONLY

PRESERVATIVE:  NONE     COOL < 4°C  
 HCl     HNO<sub>3</sub>     H<sub>2</sub>SO<sub>4</sub>  
 SODIUM THIOSULFATE     HgCl<sub>2</sub>     ASCORBIC ACID



**ENDYNE, INC.**

**Laboratory Services**

32 James Brown Drive  
Williston, Vermont 05495  
(802) 879-4333  
FAX 879-7103

REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International  
PROJECT NAME: Sherburne School  
DATE REPORTED: August 22, 1995  
DATE SAMPLED: Not Indicated

PROJECT CODE: GISS1663  
REF. #: 77,777

7-31-95 -LTR

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody record.

Chain of custody indicated sample preservation upon arrival at the laboratory.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

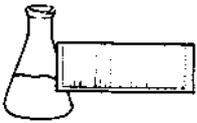
Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy were monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Reviewed by,

Harry B. Locker, Ph.D.  
Laboratory Director

enclosures



**ENDYNE, INC.**

**Laboratory Services**

32 James Brown Drive  
Williston, Vermont 05495  
(802) 879-4333  
FAX 879-7103

**LABORATORY REPORT**

**TOTAL HYDROCARBONS - EPA METHOD 418.1 (WATER)**

CLIENT: Griffin International  
REPORT DATE: August 22, 1995  
PROJECT NAME: Sherburne School  
PROJECT CODE: GISS1663  
DATE SAMPLED: Not Indicated  
DATE RECEIVED: August 1, 1995  
DATE EXTRACTED: August 17, 1995  
DATE ANALYZED: August 17, 1995  
SAMPLER: Tom Bech

<u>Reference #</u>	<u>Sample ID</u>	<u>Conc. (mg/L)<sup>1</sup></u>
77,777	Supply Well	ND <sup>2</sup>

**Notes:**

- 1 Method detection limit is 1.6 ppm.
- 2 None Detected

RECEIVED AUG 24 1995



32 James Brown Drive  
Williston, Vermont 05495  
(802) 879-4333

7954722

CHAIN-OF-CUSTODY RECORD

14345

Project Name: <i>Sherburne School</i>	Reporting Address: <i>Box 943</i>	Billing Address:
Site Location: <i>Sherburne, VT</i>	<i>Williston, VT 05495</i>	<i>Same</i>
Endyne Project Number: <i>G/SS/1663</i>	Company: <i>Griffen</i>	Sampler Name: <i>Tom Beck</i>
	Contact Name/Phone #: <i>Laurie Reed 865-4288</i>	Phone #: <i>865-4288</i>

Lab #	Sample Location	Matrix	G R A B	C O M P	Date/Time	Sample Containers		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
						No.	Type/Size				
<i>77771</i>	<i>Supply well</i>	<i>H<sub>2</sub>O</i>	<i>X</i>			<i>2</i>	<i>1L</i>		<i>23</i>	<i>4C</i>	

Relinquished by: Signature <i>Tom Beck</i>	Received by: Signature <i>Beth Ward</i>	Date/Time <i>0115</i>
Relinquished by: Signature <i>Beth Ward</i>	Received by: Signature <i>Tom M. Chalkers</i>	Date/Time <i>8-1-95 10:05</i>

New York State Project: Yes  No  Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD <sub>5</sub>	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify):										

RECEIVED AUG 24 1995

**APPENDIX D**

SOIL STOCKPILE LABORATORY RESULTS



# eastern analytical

*professional laboratory services*

August 10, 1995

Laurie Reed  
Griffin International, Inc.  
19 Commerce St.  
Williston, VT 05495

Subject: Laboratory Report

Eastern Analytical, Inc. ID #: 3239 GFI  
Client Identification: 7954722/Sherburne School  
Sample Quantity/Type: 1 soil  
Date Received: 8/2/95

Dear Mr. Reed:

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

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

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

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

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

Sincerely,

William Brunkhorst  
President

RECEIVED AUG 17 1995



# LABORATORY REPORT

Eastern Analytical, Inc. ID#: 3239 GFI

Client: Griffin International, Inc.

Client Designation: 7954722/Sherburne School

## Volatile Organic Compounds

Sample ID:	C-1 Stockpile	C-1 Stockpile
Matrix:	Soil	Soil
Date Received:	8/2/95	8/2/95
Units:	µg/L	µg/L
Date of Analysis:	8/4/95	8/4/95
Analyst:	CWC	CWC
EPA Method:	8260	8260
Benzene	< 10	Ethylbenzene < 10
Bromobenzene	< 10	Hexachlorobutadiene < 10
Bromochloromethane	< 10	Isopropylbenzene < 10
Bromodichloromethane	< 10	p-Isopropyltoluene < 10
Bromoform	< 10	Methylene chloride < 10
Bromomethane	< 100	Naphthalene < 10
n-Butylbenzene	< 10	n-Propylbenzene < 10
sec-Butylbenzene	< 10	Styrene < 10
tert-Butylbenzene	< 10	1,1,1,2-Tetrachloroethane < 10
Carbon tetrachloride	< 10	1,1,2,2-Tetrachloroethane < 10
Chlorobenzene	< 10	Tetrachloroethene < 10
Chloroethane	< 100	Toluene < 10
Chloroform	< 10	1,2,3-Trichlorobenzene < 10
Chloromethane	< 100	1,2,4-Trichlorobenzene < 10
2-Chlorotoluene	< 10	1,1,1-Trichloroethane < 10
4-Chlorotoluene	< 10	1,1,2-Trichloroethane < 10
Dibromochloromethane	< 10	Trichloroethene < 10
1,2-Dibromo-3-chloropropane	< 10	Trichlorofluoromethane < 100
1,2-Dibromoethane	< 10	1,2,3-Trichloropropane < 10
Dibromomethane	< 10	1,2,4-Trimethylbenzene < 10
1,2-Dichlorobenzene	< 10	1,3,5-Trimethylbenzene < 10
1,3-Dichlorobenzene	< 10	Vinyl chloride < 100
1,4-Dichlorobenzene	< 10	o-Xylene < 10
Dichlorodifluoromethane	< 100	m,p-Xylene < 10
1,1-Dichloroethane	< 10	MTBE < 200
1,2-Dichloroethane	< 10	Acetone < 500
1,1-Dichloroethene	< 10	2-Butanone (MEK) < 100
cis-1,2-Dichloroethene	< 10	4-Methyl-2-Pentanone (MIBK) < 100
trans-1,2-Dichloroethene	< 10	2-Hexanone < 100
1,2-Dichloropropane	< 10	EPA Method: 8015(mod)
1,3-Dichloropropane	< 10	Volatile Petroleum
2,2-Dichloropropane	< 10	Hydrocarbons
1,1-Dichloropropene	< 10	C4-C7 < 500
cis-1,3-Dichloropropene	< 10	C8-C10 < 500
trans-1,3-Dichloropropene	< 10	C11-C16 100,000

Approved By: Timothy Schaper, Organics Supervisor

*Timothy D. Schaper (CWC)*



# LABORATORY REPORT

Eastern Analytical, Inc. ID#: 3239 GFI

Client: Griffin International, Inc.

Client Designation: 7954722/Sherburne School

## Acid and Base/Neutral Extractable Organic Compounds

Sample ID:	C-1 Stockpile
Matrix:	Soil
Date Received:	8/2/95
Units:	µg/kg
Date of Extraction:	8/3/95
Date of Analysis:	8/7/95
Analyst:	BDS
EPA Method:	8270

### Acid Extractable Compounds

Phenol	< 300
2-Chlorophenol	< 300
2,4-Dichlorophenol	< 300
2,4,5-Trichlorophenol	< 2,000
2,4,6-Trichlorophenol	< 300
Pentachlorophenol	< 2,000
2-Nitrophenol	< 300
4-Nitrophenol	< 2,000
2,4-Dinitrophenol	< 2,000
2-Methylphenol	< 300
3-Methylphenol/4-Methylphenol	< 700
2,4-Dimethylphenol	< 300
4-Chloro-3-methylphenol	< 2,000
4,6-Dinitro-2-methylphenol	< 2,000
Benzoic acid	< 2,000

### Base/Neutral Extractable Compounds

N-Nitrosodimethylamine	< 300
N-Nitroso-di-N-propylamine	< 300
N-Nitrosodiphenylamine	< 300
Bis (2-chloroethyl) ether	< 300
Bis (2-chloroisopropyl) ether	< 300
Bis (2-chloroethoxy) methane	< 300
1,3-Dichlorobenzene	< 300
1,4-Dichlorobenzene	< 300
1,2-Dichlorobenzene	< 300
1,2,4-Trichlorobenzene	< 300
2-Chloronaphthalene	< 300
4-Chlorophenyl phenyl ether	< 300
4-Bromophenyl phenyl ether	< 300
Hexachloroethane	< 300
Hexachlorobutadiene	< 300
Hexachlorocyclopentadiene	< 300
Hexachlorobenzene	< 300
4-Chloroaniline	< 2,000
2-Nitroaniline	< 2,000
3-Nitroaniline	< 2,000
4-Nitroaniline	< 2,000

Approved By: Timothy Schaper, Organics Supervisor



# LABORATORY REPORT

Eastern Analytical, Inc. ID#: 3239 GFI

Client: Griffin International, Inc.

Client Designation: 7954722/Sherburne School

## Acid and Base/Neutral Extractable Organic Compounds

Sample ID:	C-1 Stockpile
Matrix:	Soil
Date Received:	8/2/95
Units:	µg/kg
Date of Extraction:	8/3/95
Date of Analysis:	8/7/95
Analyst:	BDS
EPA Method:	8270

### Base/Neutral Extractable Compounds (continued)

Benzyl Alcohol	< 2,000
Nitrobenzene	< 300
Isophorone	< 300
2,4-Dinitrotoluene	< 300
2,6-Dinitrotoluene	< 300
Benzidine	< 2,000
3,3'-Dichlorobenzidine	< 2,000
Pyridine	< 2,000
Azobenzene	< 300
Dimethylphthalate	< 300
Diethylphthalate	< 300
Di-n-butylphthalate	< 300
Butylbenzylphthalate	< 300
Bis(2-ethylhexyl)phthalate	< 300
Di-n-octylphthalate	< 300
Naphthalene	< 300
2-Methylnaphthalene	< 300
Acenaphthylene	< 300
Acenaphthene	< 300
Dibenzofuran	< 300
Fluorene	600
Phenanthrene	1,200
Anthracene	< 300
Fluoranthene	< 300
Pyrene	< 300
Benz[a]anthracene	< 300
Chrysene	< 300
Benzo[b]fluoranthene	< 300
Benzo[k]fluoranthene	< 300
Benzo[a]pyrene	< 300
Indeno[1,2,3-c,d]pyrene	< 300
Dibenz[a,h]anthracene	< 300
Benzo[g,h,i]perylene	< 300

Approved By: Timothy Schaper, Organics Supervisor



# LABORATORY REPORT

Eastern Analytical, Inc. ID#: 3239 GFI

Client: Griffin International, Inc.

Client Designation: 7954722/Sherburne School

## Total Petroleum Hydrocarbons

Sample ID:	C-1 Stockpile
Matrix:	Soil
Date Received:	8/2/95
Units:	mg/kg
Date of Extraction:	8/3/95
Date of Analysis:	8/4/95
Analyst:	DJS
Method:	8100(mod)
Carbon Range:	C9-C40*
Total Petroleum Hydrocarbons	840

\* Fuel (Diesel) and Lubricating Oil Range Organics.

Approved By: Timothy Schaper, Organics Supervisor



# LABORATORY REPORT

Eastern Analytical, Inc. ID#: 3239 GFI

Client: Griffin International, Inc.

Client Designation: 7954722/Sherburne School

## Pesticides and PCB's

Sample ID:	C-1 Stockpile
Matrix:	Soil
Date Received:	8/2/95
Units:	µg/kg
Date of Extraction:	8/3/95
Date of Analysis:	8/7/95
Analyst:	TDS
EPA Method:	8080
Dilution Factor:	5*
Aldrin	< 50
alpha-BHC	< 50
beta-BHC	< 50
gamma-BHC	< 50
delta-BHC	< 50
Chlordane	< 500
4,4'-DDT	< 50
4,4'-DDE	< 50
4,4'-DDD	< 50
Dieldrin	< 50
Endosulfan I	< 50
Endosulfan II	< 50
Endosulfan Sulfate	< 50
Endrin	< 50
Endrin Aldehyde	< 50
Heptachlor	< 50
Heptachlor Epoxide	< 50
Methoxychlor	< 50
Toxaphene	< 500
PCB-1016	< 500
PCB-1221	< 500
PCB-1232	< 500
PCB-1242	< 500
PCB-1248	< 500
PCB-1254	< 500
PCB-1260	< 500

\* Dilution factor is necessary due to the presence of non-target compounds

Approved By: Timothy Schaper, Organics Supervisor



# LABORATORY REPORT

Eastern Analytical, Inc. ID#: 3239 GFI

Client: Griffin International, Inc.

Client Designation: 7954722/Sherburne School

<b>Sample ID:</b>	Stockpile			
<b>Matrix:</b>	Soil			
<b>Date Rec'd:</b>	08/02/95		Date of	EPA
<b>Units:</b>	mg/L		Analysis Analyst	Method
<b>TCLP Metals</b>				
Arsenic	< 0.5	08/08/95	RW	6010
Barium	< 0.5	08/08/95	RW	6010
Cadmium	< 0.05	08/08/95	RW	6010
Chromium	< 0.1	08/08/95	RW	6010
Lead	< 0.5	08/08/95	RW	6010
Mercury	< 0.01	08/08/95	JG	7470
Selenium	< 0.5	08/08/95	RW	6010
Silver	< 0.05	08/08/95	RW	6010
<b>Inorganic Non-Metals (mg/kg unless noted)</b>				
pH (SU)	6.0	08/03/95	DE	9045
Reactive Cyanide	< 0.2	08/08/95	HS	7.3.3.2
Reactive Sulfide	< 10	08/08/95	HS	7.3.4.2
<b>Physical Properties</b>				
Flashpoint (F)	> 140	08/03/95	EB	1010

Approved by: Lorraine Olashaw, Inorganics Supervisor



195 Commerce Way  
 Portsmouth, New Hampshire 03801  
 603-436-5111 Fax 603-430-2151  
 800-929-9906

Ms. Teresa Dubois  
 Eastern Analytical, Inc.  
 25 Chenell Drive  
 Concord, NH 03301

August 8, 1995

**SAMPLE DATA**

Lab #: 35076-1  
 Matrix: Soil  
 Percent Solid: 89  
 Dilution Factor: 1.1  
 Collection Date: 07/31/95  
 Lab Receipt Date: 08/03/95  
 Extraction Date: 08/03/95  
 Analysis Date: 08/07/95

**CLIENT SAMPLE ID**

Client Project: Sherburne School

Project Number: 7954722  
 Station ID: C1 Stockpile

**ANALYTICAL RESULTS CHLORINATED HERBICIDES**

COMPOUND	Detection Limit: µg/kg	Result: µg/kg
2,4-D	110	ND
2,4,5-TP (Silvex)	110	ND
2,4,5-T	110	ND
Dicamba	110	ND
Pentachlorophenol	110	ND
Dalapon	165	ND
Dichloroprop	110	ND
2,4-DB	165	ND
3,5-Dichlorobenzoic Acid	165	ND
4-Nitrophenol	165	ND
Chloramben	165	ND
Bentazon	165	ND
Picloram	165	ND
MCPA	11000	ND
MCPP	11000	ND
<b>Surrogate Standard Recovery</b>		
2,4-Dichlorophenylacetic acid		96%
ND=None Detected    <=Less than    >=Greater than		

**METHODOLOGY:** Samples were analyzed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 8151."

**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature Elyse A. Ryan



environmental  
laboratory inc.

195 Commerce Way  
Portsmouth, New Hampshire 03801  
603-436-5111 Fax 603-430-2151  
800-929-9906

Ms. Teresa Dubois  
Eastern Analytical, Inc.  
25 Chenell Drive  
Concord, NH 03301

August 8, 1995

Re: **Sherburne School** **7954722**

Enclosed are the results of the analyses on your sample(s). Please see individual reports for specific methodologies and references. Samples were received in acceptable condition, with the exceptions noted on the chain of custody.

If you have any further questions on the analytical methods or these results, do not hesitate to call.

<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Remarks</u>
35076-1	07/31/95	C1 Stockpile	EPA 8151	

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine and Massachusetts. A list of actual certified tests is available upon request.

Authorized signature



**APPENDIX E**

**CERTIFICATE OF DISTRUCTION OF  
PETROLEUM CONTAMINATED SOILS**



EST. 1975

P.O. BOX 359, EPSOM, NH 03234 (603) 798-4557 FAX (603) 798-5641

CERTIFICATE OF DESTRUCTION

THIS IS TO CERTIFY that the waste materials described as 48.75 tons of soils containing petroleum hydrocarbon contamination which were delivered to MTS, Inc. thru 8-14-95 originating from SCHOOL HOUSE ROAD SHERBURNE, VT were processed and incorporated with similar aggregate into bituminous asphaltic cold mix product on thru 8-18-95 as evidenced by the attached completed Bill Of Lading number 11040 thru 11041 which constitutes the entire amount of soils delivered for project number 25:4310:1

This processing was carried out in strict accordance with the provisions of permit for pug mill cold patch mix process, number PO-BP-2635, granted from the State of New Hampshire Department of Environmental Services, Air Resources Division, effective August 7, 1990.

RECEIVED AUG 25 1995

[Signature] 8/23/95
Processing Foreman Date

[Signature]
Compliance Officer Date

# BILL OF LADING

## SOILS CONTAINING VIRGIN PETROLEUM OILS

BILL OF LADING # NO 11040 PROJECT AUTHORIZATION # 25:4310:1 DATE 8/09/95

**AUTHORIZED SIGNATURE:** \_\_\_\_\_

<p><b>FACILITY:</b>  <u>MTS, INC.</u>  <u>RT. 4, 9, &amp; 202</u>  <u>CHICHESTER, NH</u>  <u>(603) 798-4557</u></p> <p><b>PLANT LOCATION:</b> <u>CHICHESTER, NH</u></p>	<p><b>TRANSPORTER NAME/ADDRESS:</b>  <u>ATL, INC.</u>  <u>P. O. BOX 623</u>  <u>EPSOM, NH 03234</u></p> <p>TELEPHONE <u>(603) 798-3100</u></p>
---	--

<p><b>GENERATOR NAME/ADDRESS:</b>  <del><u>SHERBURNE SCHOOL DISTRICT</u></del>  <u>HCR 65, BOX 48A</u>  <u>KILLINGTON, VT 05751</u></p> <p>CONTACT PERSON: <u>STEVE FINNERUN</u>          TELEPHONE: <u>(802)-442-3979</u></p>	<p><b>SITE OF GENERATION:</b>  <del><u>SHERBURNE ELEMENTARY SCHOOL</u></del>  <u>SCHOOL HOUSE ROAD</u>  <u>SHERBURNE, VT</u></p>
--	--

<p><b>SOIL DESCRIPTION:</b></p> <p>GASOLINE _____ KEROSENE _____          NO. 2 OIL <u>XX</u> NO. 4 OIL _____          NO. 6 OIL _____ OTHER _____</p>	<p><b>QUANTITY:</b></p> <table border="1"> <tr> <td></td> <td>WT(TONS)</td> <td>VOL(CU.YDS.)</td> </tr> <tr> <td>TOTAL PROJECTED</td> <td><u>45</u></td> <td>_____</td> </tr> <tr> <td>SHIPPED TO DATE</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>THIS LOAD (EST.)</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>REMAINING TO BE SHIPPED</td> <td>_____</td> <td>_____</td> </tr> </table>		WT(TONS)	VOL(CU.YDS.)	TOTAL PROJECTED	<u>45</u>	_____	SHIPPED TO DATE	_____	_____	THIS LOAD (EST.)	_____	_____	REMAINING TO BE SHIPPED	_____	_____
	WT(TONS)	VOL(CU.YDS.)														
TOTAL PROJECTED	<u>45</u>	_____														
SHIPPED TO DATE	_____	_____														
THIS LOAD (EST.)	_____	_____														
REMAINING TO BE SHIPPED	_____	_____														

**CONSULTANT:** (If Applicable)  
 NAME: GRIFFIN INTERNATIONAL ADDRESS: 2B DORSET LANE  
(802)-865-4288 WILLISTON, VT 05495  
 TELEPHONE: \_\_\_\_\_

ANALYSIS ATTACHED  YES  NO  \*  
 VOLATILES (AS BENZENE) \_\_\_\_\_ PPM TOTAL PETRO. HYDROCARBON(TPH) \_\_\_\_\_ PPM

GENERATORS SIGNATURE: I hereby certify that the information provided is a true representation of the materials to be shipped and that the soils do not contain other constituents which fall within the definitions of hazardous waste as defined in 40CFR260 and applicable State regulations.  
X \_\_\_\_\_ DATE: \_\_\_\_\_

STATE AUTHORIZATION SIGNATURE (IF APPLICABLE) \_\_\_\_\_ DATE \_\_\_\_\_ CASE # \_\_\_\_\_

TRUCK/TRACTOR REGISTRATION <u>AP9982 NH</u>	TRAILER REGISTRATION <u>1278 TE NH</u>	LEFT SITE AT: <u>8/14/95</u> DATE: <u>7:02</u> <input checked="" type="radio"/> AM <input type="radio"/> PM
TRANSPORTERS SIGNATURE: <u>Phil Fautsch</u>		

RECEIVING CLERK SIGNATURE: H. Papina DATE 8/14/95 INSPECTED SAT? \_\_\_\_\_  
 ARRIVED 8:39  AM  PM  
 TRUCK WT: FULL 90360 TICKET NO. 112267  
 EMPTY 39760 TICKET NO. \_\_\_\_\_  
 NET 50600 22.2 RECORD BY: HA DATED 8/14/95

PROCESSED DATE Sept 8/18/95 CERTIFICATE OF DESTRUCTION SENT   
 PROCESSING FOREMAN SIGNATURE: Shel H ADDITIONAL COPIES SENT TO (1) \_\_\_\_\_  
 (2) \_\_\_\_\_

FALSIFICATION OR MISREPRESENTATION OF ANY INFORMATION ON THIS BILL OF LADING IS A VIOLATION OF LAW AND IS SUBJECT TO APPROPRIATE STATUTORY OR REGULATORY PENALTIES.

# BILL OF LADING

## SOILS CONTAINING VIRGIN PETROLEUM OILS

BILL OF LADING # NO 11041 PROJECT AUTHORIZATION # 25:4310:1 DATE 8/09/95

**AUTHORIZED SIGNATURE:**

<p><b>FACILITY:</b>  <u>MTS, INC.</u>  <u>RT. 4, 9, &amp; 202</u>  <u>CHICHESTER, NH</u>  <u>(603) 798-4557</u></p> <p>PLANT LOCATION: <u>CHICHESTER, NH</u></p>	<p><b>TRANSPORTER NAME/ADDRESS:</b>  <u>ATL, INC.</u>  <u>P. O. BOX 623</u>  <u>EPSOM, NH 03234</u></p> <p>TELEPHONE <u>(603)-798-3100</u></p>
--	--

<p><b>GENERATOR NAME/ADDRESS:</b>  <u>SHERBURNE SCHOOL DISTRICT</u>  <u>HCR 65, BOX 48A</u>  <u>KILLINGTON, VT 05751</u></p> <p>CONTACT PERSON: <u>STEVE FINNERUN</u>          TELEPHONE: <u>(802)-442-3979</u></p>	<p><b>SITE OF GENERATION:</b>  <u>SHERBURNE ELEMENTARY SCHOOL</u>  <u>SCHOOL HOUSE ROAD</u>  <u>SHERBURNE, VT</u></p>
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<p><b>SOIL DESCRIPTION:</b></p> <p>GASOLINE <u>XX</u> KEROSENE _____          NO. 2 OIL _____ NO. 4 OIL _____          NO. 6 OIL _____ OTHER _____</p>	<p><b>QUANTITY:</b></p> <table border="0"> <tr> <td></td> <td style="text-align: right;">WT(TONS)</td> <td style="text-align: right;">VOL(CU.YDS.)</td> </tr> <tr> <td>TOTAL PROJECTED</td> <td style="text-align: right;"><u>45</u></td> <td></td> </tr> <tr> <td>SHIPPED TO DATE</td> <td></td> <td></td> </tr> <tr> <td>THIS LOAD (EST.)</td> <td></td> <td></td> </tr> <tr> <td>REMAINING TO BE SHIPPED</td> <td></td> <td></td> </tr> </table>		WT(TONS)	VOL(CU.YDS.)	TOTAL PROJECTED	<u>45</u>		SHIPPED TO DATE			THIS LOAD (EST.)			REMAINING TO BE SHIPPED		
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TOTAL PROJECTED	<u>45</u>															
SHIPPED TO DATE																
THIS LOAD (EST.)																
REMAINING TO BE SHIPPED																

**CONSULTANT: (If Applicable)**  
GRIFFIN INTERNATIONAL 28 DORSET LANE  
 NAME: (802)-865-4288 ADDRESS: WILLISTON, VT 05495  
 TELEPHONE: \_\_\_\_\_

ANALYSIS ATTACHED YES NO  
 VOLATILES (AS BENZENE) \_\_\_\_\_ PPM TOTAL PETRO. HYDROCARBON(TPH) \_\_\_\_\_ PPM

GENERATORS SIGNATURE: I hereby certify that the information provided is a true representation of the materials to be shipped and that the soils do not contain other constituents which fall within the definitions of hazardous waste as defined in 40CFR260 and applicable State regulations.  
X \_\_\_\_\_ DATE: \_\_\_\_\_

STATE AUTHORIZATION SIGNATURE (IF APPLICABLE) \_\_\_\_\_ DATE \_\_\_\_\_ CASE # \_\_\_\_\_

TRUCK/TRACTOR REGISTRATION AP4731 TRAILER REGISTRATION 113269 LEFT SITE AT: 2:14 DATE: 7, 30 AM/PM  
 TRANSPORTERS SIGNATURE: \_\_\_\_\_

RECEIVING CLERK SIGNATURE: [Signature] DATE 8/14/95 INSPECTED SAT.? \_\_\_\_\_  
 ARRIVED 1:26 AM/PM  
 TRUCK WT: FULL 82300 TICKET NO. 113269  
 EMPTY 58900 TICKET NO. \_\_\_\_\_  
 NET 46700 RECORD BY: HAI DATED 2/14/95

PROCESSED DATE 8/18/95 CERTIFICATE OF DESTRUCTION SENT   
 PROCESSING FOREMAN SIGNATURE: [Signature] ADDITIONAL COPIES SENT TO (1) \_\_\_\_\_  
 (2) \_\_\_\_\_

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