SEP 16 1994

GRIFFIN INTERNATIONAL INC

September 14, 1994

Mr. Chuck Schwer
VT Department of Environmental Conservation
Hazardous Materials Management Division
103 South Main St./ West Bldg.
Waterbury, VT 05671-0404

RE: Site Assessment at Fairdale Farms in Bennington, VT
VTDEC Site #93-1544

Dear Mr. Schwer:

Enclosed please find the September 1994 *Report on the Investigation of Suspected Subsurface Petroleum Contamination* for the Fairdale Farms site in Bennington, Vermont. Mr. Edward Holden of E.H. Holden Corp. and Gary Warren of Fairdale Farms have reviewed the report and have requested that I forward a copy to you.

Please do not hesitate to call, should you have any questions or comments on the enclosed report.

Sincerely,

Kristen Underwood

Kristen Underwood
Hydrogeologist

Enc.

cc: E. Holden, E. H. Holden Corp. (w/out enc.)
GI #1944481

REPORT ON THE INVESTIGATION OF SUSPECTED SUBSURFACE PETROLEUM CONTAMINATION

AT

Fairdale Farms
Bennington, Vermont

VTDEC SITE #93-1544
GRIFFIN PROJECT #1944481

SEPTEMBER 1994

Prepared For:

E.H. Holden Corp.
P.O. Box 30
Bennington, VT 05201

Prepared By:

GRIFFIN INTERNATIONAL, INC.
P.O. Box 943
Williston, Vermont 05495
(802) 865-4288

TABLE OF CONTENTS

I. INTRODUCTION

This report provides a summary of the tasks completed for the preliminary investigation of potential subsurface petroleum contamination at the Fairdale Farms property Route 9 south of Bennington, Vermont (see Site Location Map in Appendix A). Results of the following investigative tasks performed by Griffin International, Inc., (Griffin) are presented: excavation of test pits, monitoring well installation; groundwater sampling and analyses; stockpiled soil screening; stream and swale screening; and assessment of sensitive receptors in the vicinity of the Fairdale Farms site. Also provided are conclusions and recommendations for additional investigation. This work was performed based on requests from Mr. Chuck Schwer of the Vermont Department of Environmental Conservation (VTDEC) in a letter to Edward H. Holden of E.H. Holden Corp. (Holden), dated January 10, 1994. With the exceptions noted below, work was performed in accordance with the January, 1994 *Site Assessment Work Plan and Cost Estimate* for subsurface investigation of suspected petroleum contamination at the site prepared by Griffin and approved by the VTDEC.

II. SITE BACKGROUND

Fairdale Farms is located on the north side of Route 9 approximately two miles west of Bennington, Vermont. The property is owned by E.H. Holden Corporation, and leased by Fairdale Farms, a dairy operation involved in the pasteurizing/ homogenizing and packaging of milk for public sale.

Three underground storage tanks (USTs) were removed from the property on December 14, 1993:

Tank	Capacity	Contents
UST #1	750 gallons	gasoline
UST #2	750 gallons	gasoline
UST #3	1000 gallons	No. 2 fuel oil

Petroleum-contaminated soils were identified in the vicinity of UST #1 and UST #2. UST #2 which was in poor condition with several small holes at the time of the tank pull, was identified as the likely source of subsurface gasoline releases in the tank pull report prepared by Griffin and dated December 20, 1993. In addition, surface soils in the vicinity of USTs #1 and #2 were contaminated by the release of between 200 and 500 gallons of diesel which resulted from an overfill of an above ground storage tank (AST) on November 26, 1993 (see Site Map: Sheet 1 of 2 in Appendix A). Diesel fuel reportedly flowed from the AST into a storm runoff catch basin located immediately south of the AST. The drain flows into a culvert which runs to the north side of the parking lot. From there, the storm runoff flows through a one hundred foot long drainage swale to another catch basin (see Site Map: Sheet 1 of 2). Two other culverts flow into this catch basin. The runoff flows north from this point, through an underground culvert, to the vicinity of the facility's sewage treatment plant (see Site Map: Sheet 2 of 2 in Appendix A). The

storm runoff flows north from this point, through a small stream. The stream branches off near an abandoned sewage treatment lagoon. Approximately half of the runoff flows into the lagoon while the other half flows underneath an old railroad right-of-way, into an unnamed tributary of the Walloomsac River.

Approximately 35 cubic yards of diesel contaminated soils were excavated from the surface in the vicinity of the AST and USTs #1 and #2 and polyencapsulated on site in a field located approximately 850 feet northwest of the AST location (see Site Map: Sheet 2 of 2).

III. INVESTIGATIVE PROCEDURES

Investigative procedures associated with the site assessment at Fairdale Farms were grouped into two distinct categories: UST Assessment (subsurface investigation of suspected petroleum contamination resulting from the gasoline release from UST #2) and Surface Spill Assessment (surface water and stockpiled soil screening).

A. UST Assessment

To determine the nature and extent of suspected subsurface petroleum contamination in the area of Fairdale Farms resulting from the likely release of gasoline from UST #2, the following investigative tasks were undertaken: excavation of three test pits to groundwater, groundwater sampling and analyses for petroleum-related constituents, and a sensitive receptor survey. Investigative procedures were undertaken in accordance with the Work Plan with one notable exception. One of the two pre-existing monitoring wells at the site, which was to be sampled, was unable to be located beneath approximately three to six feet of coarse gravel used for road fill and leveling of a parking area at the site. Therefore, a new monitoring well was installed in one of the test pits excavated on the day of the Site Assessment.

1. Test Pit Excavation

Three test pits were excavated as follows with a backhoe by Jerome Construction of Bennington, Vermont, under the direct supervision of a Griffin hydrogeologist:

Test Pit	Location from Former USTs #1,2	Depth of Pit Below Grade	Depth to Groundwater
TP-1	65 ft northwest	11 ft	8 ft
TP-2	100 ft northwest	10.5 ft	5 ft
TP-3	80 ft northeast	10.5 ft	5 ft

Test Pit locations are indicated on the Site Map: Sheet 1 of 2 presented in Appendix A. The test pit locations were chosen to be in the presumed downgradient direction from the

USTs, based upon site topography. Soils collected from approximately one foot intervals were screened with an HNu™ Model PI-101 portable photoionization detector (PID), and soil characteristics were described by the Griffin hydrogeologist. PID readings were obtained in the headspace of a sealed plastic bag. Soil descriptions and PID readings are presented in test pit logs for TP-1 and TP-3, contained in Appendix B. A monitoring well, MW-2, was installed in TP-2; soil descriptions and PID readings obtained from this test pit are indicated in the monitoring well log for MW-2, also contained in Appendix B. Soils excavated from each Test Pit were subsequently backfilled.

No petroleum odors or volatile organic compound (VOC) concentrations, significantly elevated above background levels, were detected in soils from TP-1 or TP-3. In TP-2, soils from 5 ft to 11 ft (bottom of the pit) exhibited elevated VOC concentrations (ranging from 2 to 70 ppm) when screened with a PID. The maximum VOC concentration (70 ppm) was detected in the headspace of soils obtained from approximately 6 ft below ground level.

During excavation of TP-2, at a depth of approximately seven feet below ground level, a three to four foot length of solid, four-inch PVC pipe was breached with the excavator bucket. A small flow of water (approximately 0.75 gallon per minute) was observed flowing from the pipe. The breached line was not indicated on the Existing Site Plan dated November 1990 and prepared by Dufresne & Henry, Inc. The line was repaired using a replacement length of four-inch diameter sewer pipe and fern coats, prior to backfilling the test pit.

2. Monitoring Well Installation

Since one of the two existing monitoring wells at the site could not be located beneath three to six feet of gravel fill on the day of the June 13, 1994 site assessment visit, a monitoring well (MW-2) was installed in TP-2. This test pit was chosen for the location of monitoring well installation, as it was the only test pit of the three which exhibited elevated VOCs in soils. The monitoring well log for MW-2 is included in Appendix B. MW-2 was installed by placing a two-inch diameter PVC well with nine feet of 20-slot screen inside a four inch length of PVC pipe. Sand pack was installed in the annulus between the four inch pipe and the two-inch well by gradually adding sand as the four-inch pipe was raised and the test pit was backfilled by the backhoe operator. Approximately one foot of bentonite seal was placed above the sand pack to serve as a surface seal and prevent infiltration of surface water into the screened interval. The two-inch riser pipe was subsequently cut off so that the top of casing was positioned approximately one half foot below the ground surface, and a flush-mounted protective steel well cover was installed in cement at the well head.

A land survey was not conducted to locate MW-2, as installation of this monitoring well, and thus the need for a survey, were not anticipated in the original scope of work and associated cost estimate for the project. The position of this newly installed monitoring

well was measured with a tape off of permanent site features (building corners and the AST), and was approximately located on the Site Map: Sheet 1 of 2 in Appendix A.

3. Groundwater Sampling and Analyses

Prior to groundwater sampling on June 13 and 23, 1994, wells, MW-1 and MW-2, were monitored for presence of free floating product, and depths to water below ground surface were recorded. Results are tabulated as Liquid Level Monitoring Data in Appendix C.

A groundwater sample was collected from MW-1 on June 13, 1994, and a sample from MW-2 was collected on June 23, 1994, after time was allowed for this newly installed well to equilibrate to the surrounding aquifer. Quality control (QC) samples (a trip blank, duplicate sample, and equipment blank) were also collected on June 13, 1994. Samples were analyzed by EPA Method 602 by Endyne, Inc., of Williston, Vermont. Analytical results are summarized in tabular form in Appendix D; drinking water standards are provided for reference in this summary table. Laboratory data sheets are also included in Appendix D. Analytical results of the trip blank, duplicate, and equipment blank samples indicate that adequate Quality Assurance/ Quality Control was maintained throughout sample collection and analyses.

No petroleum constituents were detected in MW-1 located within fifty feet north of the former UST #2. Very low concentrations of ethylbenzene, xylenes, and MTBE were detected in MW-2; reported concentrations were below applicable drinking water standards.

B. Surface Spill Assessment

To evaluate the extent and degree of petroleum contamination resulting from the release of diesel from the on-site AST, surface water in the drainage swale and the small stream which reportedly received runoff of diesel, and stockpiled diesel-contaminated soils were screened with a PID for VOCs.

1. Stockpiled Soil Screening

Approximately 35 cubic yards of petroleum contaminated soils associated with the release of diesel from the onsite AST were stockpiled and polyencapsulated in at the edge of a field on E.H. Holden property approximately 850 feet northwest of the AST (see Site Map: Sheet 2 of 2). These soils were screened with an HNu™ Model PI-101 PID on June 13, 1994. Soil samples were retrieved from the pile with a hand auger and contained in a sealable plastic bag. PID readings were obtained from the plastic bag headspace above the soils.

The following PID screening results were recorded:

Sample No.	Depth (ft)	(ppm above background)
1	1	6
2	1.5	16
3	1.5	53
4	1.5	6
5	2	18
6	1.5	23

2. VOC Screening of Swale and Stream

The drainage swale and the small stream which reportedly received runoff of diesel associated with the November 26, 1993 overfill of the AST were screened for VOCs with an HNu™ Model PI-101 PID on June 13, 1994. Very low to negligible flow was observed in the drainage swale; water was dripping from the culvert into the swale approximately 165 feet northwest of the AST. A biological sheen was observed on the standing water present in a 0.5-ft to 1-ft wide channel in the swale. A low flow of water (less than 0.5 gallon per minute - visual estimate) was observed in the storm runoff swale flowing southerly to its confluence with the drainage swale on the eastern edge of the access road to the wastewater treatment plant and stockpiled soils. To screen VOCs in the drainage swale, runoff swale, and stream, small test pits were excavated using a clean hand shovel along the bottom and sides of the channels, and the exposed soils and seeping ground water were screened with the PID. In addition, at certain of these same sample locations, the air above standing or flowing water was screened for VOCs with a PID. The table below indicated the stream and swale screening results. Screening locations 1, 2, and 3 were along the drainage swale; locations 4 and 5 were positioned along the storm runoff swale upstream of its confluence with the drainage swale (see Site Map: Sheet 1 of 2 in Appendix A). Screening locations 6 and 7 were located along the stream formed by emergence of storm runoff waters from the underground culvert at a location midway between the Process Wastewater Treatment facility and the Old Lagoon (see Site Map: Sheet 2 of 2).

Screening Location		VOCs in Soils (ppm)	Observations
1	channel bottom - soils/water	20	0.5 inch dark petroleum-stained soils
1	channel edge - soils	18	0.5 inch dark petroleum-stained soils
1	mid channel - above water	0	No petroleum sheen
2	channel bottom - soils/water	13	1 inch dark petroleum-stained soils
2	north channel edge - soils	1	0.5 inch dark petroleum-stained soils
2	mid channel - above water	0	No petroleum sheen

Screening Location		VOCs in Soils (ppm)	Observations
3	channel bottom - soils/water	2	1 inch dark petroleum-stained soils
3	north channel edge - soils	1	1 inch dark petroleum-stained soils
3	mid channel - above water	0	Slight petroleum sheen
4	channel bottom - soils/water	0	No staining, no sheen
5	channel bottom - soils/water	0	No staining, no sheen
6	channel bottom - soils/water	0.5	Slight surface soil staining
7	channel bottom - soils/water	0.5	Slight surface soil staining

Note: VOC readings are reported in parts per million (ppm) above background.

These drainage swale and stream screening results suggest that residual petroleum contamination resulting from the November 1993 diesel release from the on-site AST continues to impact surface runoff water and shallow soils at the site.

IV. RISK ASSESSMENT

The area surrounding the Fairdale Farms property was evaluated during the site visit conducted on June 13, 1994, to identify potentially sensitive receptors in the vicinity of the site. In addition, a review of State of Vermont files at the Agency of Natural Resources, Water Supply Division offices in Waterbury, Vermont was conducted on June 9, 1994, to identify the location of supply wells in the area of Fairdale Farms.

The Fairdale Farms property consists of multiple barns and other outbuildings associated with the processing of milk for public sale. The property is located along Route 9 in a rural, largely residential area west of Bennington, Vermont. Topography at the site is moderately sloping in a northerly direction. To the north the site is bordered by agricultural fields. A small, westerly-flowing stream is located approximately 2000 feet north of the Fairdale Farms Process Plant. Residences are located along Route 9 to the west and east of the site. Immediately to the east is located another agricultural property. To the south of the site across Route 9 are located four bedrock wells which supply drinking and process water to the Fairdale Farms dairy plant. These wells are approximately forty feet higher in topographic setting than the location of the former UST #2. Thus, they are likely upgradient of the former UST location. There is reportedly no supply well located on the Fairdale Farms site north of Route 9. According to records contained at the Water Supply Division, several private supply wells are located within a

one mile radius of the Fairdale Farms site; however, the majority of these wells appear to be constructed in bedrock and do not target the overburden aquifer.

Potential environmental risk posed to the four bedrock supply wells south of the Fairdale Farms property appears minimal, since concentrations of petroleum-related constituents detected in the two onsite monitoring wells are relatively low to nondetectable, and since the four bedrock supply wells appear to be positioned upgradient from the location of the former USTs. Furthermore, the supply wells are completed in an underlying bedrock aquifer while the subsurface petroleum contamination has likely only impacted the overburden aquifer.

None of the buildings associated with the Fairdale Farms dairy plant reportedly has a basement, according to Mr. Holden. Thus, potential exposure to petroleum contaminants via subsurface, gaseous-phase migration was not evaluated further in the risk assessment.

Drainage swale and stream screening results indicate that petroleum contamination resulting from the diesel release from the on site AST has likely impacted surface water and shallow soils at the site. Dissolved petroleum constituents may be migrating offsite to the small, westerly-flowing stream located approximately 2000 feet north of the Fairdale Farms Process Plant. Inspection of the Hoosick Falls, NY, USGS 7.5 minute topographic quadrangle map (1943, photorevised in 1980) revealed that this stream turns northward approximately three quarters of a mile west of Fairdale Farms and eventually flows into the Walloomsac River.

V. CONCLUSIONS

Based upon the results of the above investigative tasks, Griffin presents the following conclusions:

1) Excavation of three test pits to a depth approximately 3 to 4.5 feet below the perched water table, revealed elevated volatile organic compounds in soil in only one pit, located approximately 100 feet northwest of the former location of UST #2.

2) No free phase product was detected in the two monitoring wells located downgradient of the former UST locations.

3) Dissolved petroleum-related constituents were detected at very low levels, below applicable groundwater enforcement standards, in only one of the two monitoring wells; no petroleum constituents were detected in the second of the two monitoring wells.

4) Over time, dissolved contaminant concentrations in the overburden aquifer can be expected to decrease with the progressive action of natural mitigative processes, including dilution, dispersion, and biodegradation.

5) Residual petroleum contamination resulting from the November 1993 diesel release from the on-site AST apparently continues to impact surface runoff water and shallow soils in the drainage swale and stream at the site.

6) A potentially sensitive receptor in the area of the Fairdale Farms site was identified as the westerly-flowing stream located north of the northern property boundary.

VI. RECOMMENDATIONS

Based upon the above conclusions, Griffin offers the following recommendations: :

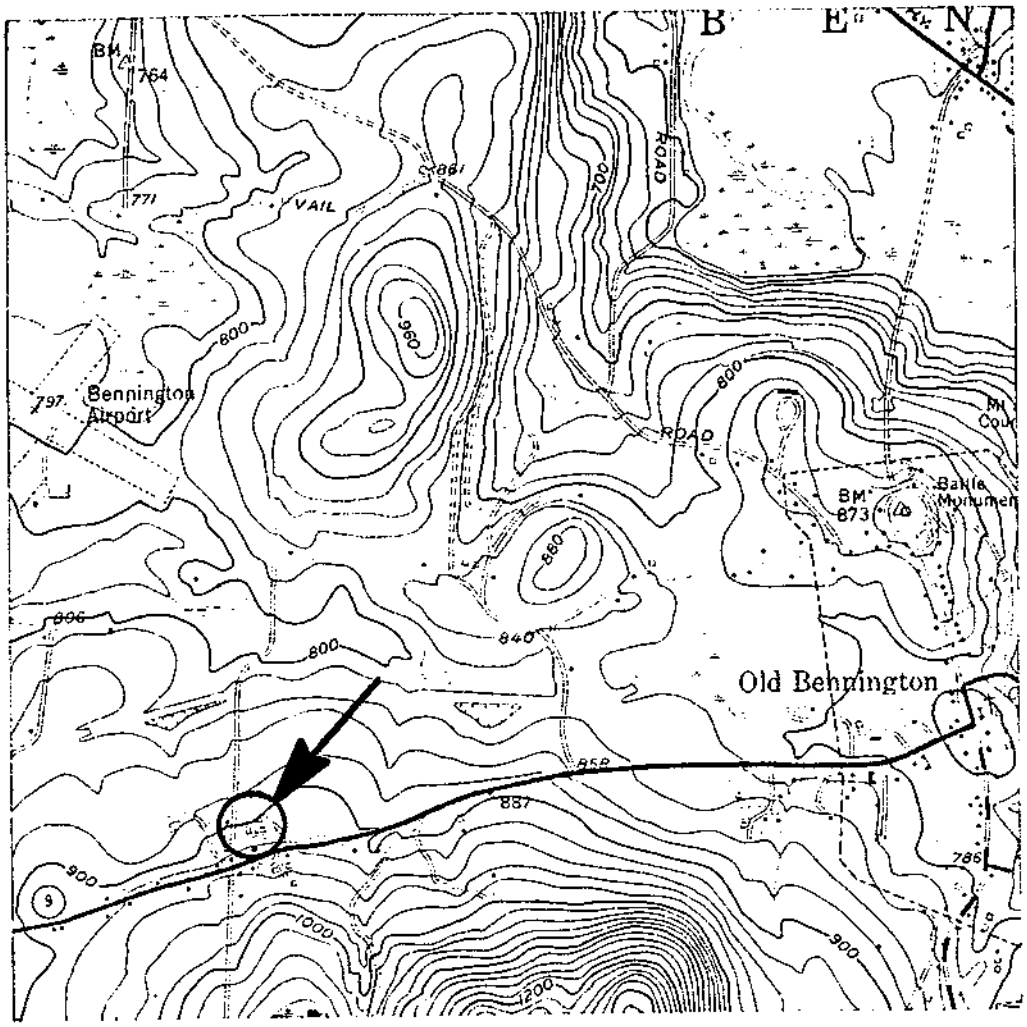
With respect to the UST Investigation at the site, no further action is recommended.

With respect to the AST Investigation at the site:
1) A sample of water flowing in the stream north of the onsite Process Wastewater Treatment Facility Area should be collected and analyzed for petroleum-related constituents by EPA Method 8020. The sample results will be utilized to characterize surface water quality impact at this location and to evaluate the potential impact of dissolved petroleum contaminants on the offsite stream, tributary to the Walloomsac River.

2) Polyencapsulated, petroleum-contaminated soils on the property should be turned over and moved onto new plastic at a location immediately adjacent to their current position. This activity should aerate the soils and increase the rate of natural mitigative processes such as volatilization and biodegradation to reduce VOC concentrations. Polyencapsulated soils should continue to be screened on a semi-annual basis to track the expected reduction of contaminant concentrations with time.

APPENDIX A

Site Maps



JOB #: 1944481
SOURCE: USGS- BENNINGTON, VERMONT QUADRANGLE

GRIFFIN INTERNATIONAL INC

FAIRDALE FARMS

BENNINGTON, VERMONT

SITE LOCATION MAP

DATE: 8/12/94	DWG.#:1	SCALE: 1:24000	DRN.: SB	APP.:KU

APPENDIX B

Test Pit and Monitoring Well Logs

WELL NUMBER TP1

PROJECT FAIRDALE FARMS

LOCATION BENNINGTON, VERMONT ROUTE 9

DATE DRILLED 6/13/94 TOTAL DEPTH OF HOLE 11.0'

DIAMETER

SCREEN DIA. N/A LENGTH N/A SLOT SIZE N/A

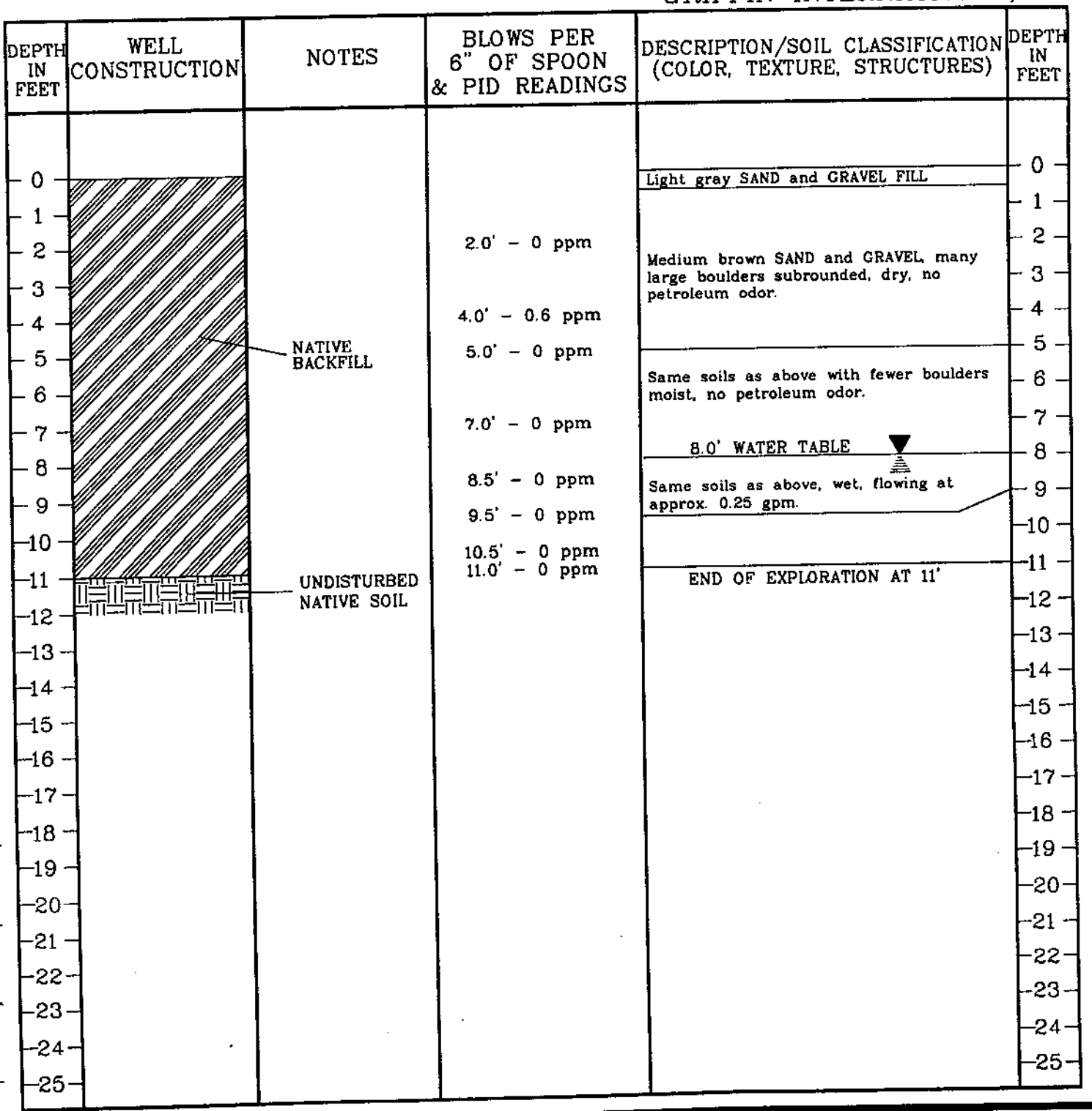
CASING DIA. N/A LENGTH N/A TYPE N/A

DRILLING CO. N/A DRILLING METHOD BACKHOE

DRILLER N/A LOG BY K. UNDERWOOD

Site Sketch

GRIFFIN INTERNATIONAL, INC



PROJECT FAIRDALE FARMS

LOCATION BENNINGTON, VERMONT ROUTE 9

DATE DRILLED 6/13/94 TOTAL DEPTH OF HOLE 11.0'

DIAMETER

SCREEN DIA. N/A LENGTH N/A SLOT SIZE N/A

CASING DIA. N/A LENGTH N/A TYPE N/A

DRILLING CO. N/A DRILLING METHOD BACKHOE

DRILLER N/A LOG BY K. UNDERWOOD

WELL NUMBER TP3

Site Sketch

GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0				Light gray SAND and GRAVEL FILL	0
1			1.0' – 0.2 ppm	Medium grayish brown to yellowish medium grained SAND with silt, some gravel, dry, no petroleum odor.	1
2			2.5' – 0 ppm		2
3			3.5' – 0 ppm	Medium brown fine to coarse grained SAND, some small subrounded gravel, dry, no petroleum odor.	3
4					4
5		NATIVE BACKFILL	5.0' – 0 ppm	5.0' WATER TABLE ▼	5
6			6.0' – 0 ppm	Same soils as above, but moist with larger percentage of silt and large subangular boulders.	6
7			7.5' – 0 ppm	Medium gray SILT and CLAY, trace of sand, trace of gravel, wet, no pet. odor.	7
8			8.5' – 0 ppm		8
9				Medium brown SAND and GRAVEL, with silt, trace of clay.	9
10			10.0' – 0 ppm		10
11		UNDISTURBED NATIVE SOIL		END OF EXPLORATION AT 10.5'	11
12					12
13					13
14					14
15					15
16					16
17					17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25

WELL NUMBER MW2

PROJECT FAIRDALE FARMS

LOCATION BENNINGTON, VERMONT ROUTE 9

DATE DRILLED 6/13/94 TOTAL DEPTH OF HOLE 11.0'

DIAMETER

SCREEN DIA. 2" LENGTH 9' SLOT SIZE 0.020'

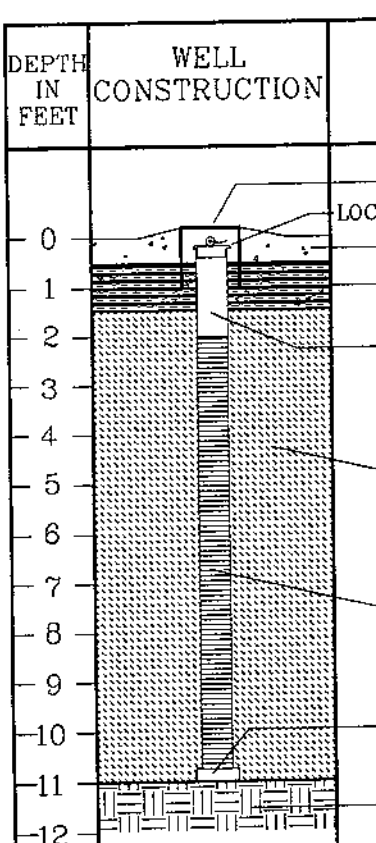
CASING DIA. 2" LENGTH 1.5' TYPE sch 40 pvc

DRILLING CO. N/A DRILLING METHOD BACKHOE

DRILLER N/A LOG BY K. UNDERWOOD

Site Sketch

GRIFFIN INTERNATIONAL, INC



DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0					0
				Light gray SAND and GRAVEL FILL	
1			1.0' - 0 ppm		1
2			2.0' - 0 ppm	Medium grayish brown fine grained SAND w/silt, some gravel, subrounded, dry, no petroleum odor.	2
3					3
4			4.0' - 0.2 ppm		4
				5.0' WATER TABLE	
5			5.0' - 4.5 ppm		5
6			6.0' - 70 ppm	Medium grayish brown fine grained SAND w/silt, some gravel, subrounded, w/ higher clay content, wet, moderate petroleum odor.	6
7			7.0' - 2.0 ppm		7
8			8.0' - 40 ppm		8
9				Medium grayish brown, fine grained SAND with gravel, trace of silt, moist mild petroleum odor.	9
10			9.5' - 15 ppm		10
11			10.5' - 12 ppm		11
12				BASE OF WELL AT 11' END OF EXPLORATION AT 11'	12
13					13
14					14
15					15
16					16
17					17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25

APPENDIX C

Liquid Level Data

Liquid Level Monitoring Data
Fairdale Farms
Bennington, Vermon

Well	Depth to Product (ft below ref. pt.)	Depth to Water (ft below ref. pt.)	Ref. Pt.
MW-1	--	5.77	Top of PVC riser
MW-2	--	6.37	Top of PVC riser

APPENDIX D

Groundwater Quality Data

Groundwater Quality Summary
Fairdale Farms
Bennington, Vermont

PARAMETER	MW-1 6/13/94	MW-2 6/23/94	Trip Blank 6/13/94	Duplicate Sample 6/13/94	Equipment Blank 6/13/94	Drinking Water Standards
Benzene	ND	ND	ND	ND	ND	5.0 *
Chlorobenzene	ND	ND	ND	ND	ND	100 *
1,2-DCB	ND	ND	ND	ND	ND	600 *
1,3-DCB	ND	ND	ND	ND	ND	600 **
1,4-DCB	ND	ND	ND	ND	ND	75 *
Ethylbenzene	ND	5.7	ND	ND	ND	700 *
Toluene	ND	ND	ND	ND	ND	1,000 *
Xylenes	ND	10.5	ND	ND	ND	10,000 *
Total BTEX	ND	16.2	ND	ND	ND	-
MTBE	ND	14.3	ND	ND	ND	40 **
BTEX + MTBE	ND	30.5	ND	ND	ND	-

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: Fairdale Farms
REPORT DATE: June 20, 1994
DATE SAMPLED: June 13, 1994

PROJECT CODE: FAIR1993
REF.#: 60,674 - 60,677

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody indicated samples were preserved with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was 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 recovery data was determined to be within laboratory QA/QC guidelines unless otherwise noted.

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

EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Fairdale Farms
REPORT DATE: June 20, 1994
DATE SAMPLED: June 13, 1994
DATE RECEIVED: June 14, 1994
ANALYSIS DATE: June 17, 1994

PROJECT CODE: FAIR1993
REF.#: 60,674
STATION: Trip Blank
TIME SAMPLED: 9:35
SAMPLER: Kristen Underwood

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

Bromobenzene Surrogate Recovery: 97%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:
1 None detected

ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Fairdale Farms
REPORT DATE: June 20, 1994
DATE SAMPLED: June 13, 1994
DATE RECEIVED: June 14, 1994
ANALYSIS DATE: June 17, 1994

PROJECT CODE: FAIR1993
REF.#: 60,675
STATION: MW-1
TIME SAMPLED: 9:40
SAMPLER: Kristen Underwood

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

Bromobenzene Surrogate Recovery: 100%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:
1 None detected

ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Fairdale Farms
REPORT DATE: June 20, 1994
DATE SAMPLED: June 13, 1994
DATE RECEIVED: June 14, 1994
ANALYSIS DATE: June 17, 1994

PROJECT CODE: FAIR1993
REF.#: 60,676
STATION: Duplicate (MW-1)
TIME SAMPLED: 9:40
SAMPLER: Kristen Underwood

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

Bromobenzene Surrogate Recovery: 98%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:
1 None detected

ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Fairdale Farms
REPORT DATE: June 20, 1994
DATE SAMPLED: June 13, 1994
DATE RECEIVED: June 14, 1994
ANALYSIS DATE: June 17, 1994

PROJECT CODE: FAIR1993
REF.#: 60,677
STATION: Field Blank
TIME SAMPLED: 12:25
SAMPLER: Kristen Underwood

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

Bromobenzene Surrogate Recovery: 99%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:
1 None detected

ENDYNE, INC.

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EPA METHOD 602 LABORATORY REPORT

MATRIX SPIKE AND DUPLICATE LABORATORY CONTROL DATA

CLIENT: Griffin International
PROJECT NAME: Fairdale Farms
REPORT DATE: June 20, 1994
DATE SAMPLED: June 13, 1994
DATE RECEIVED: June 14, 1994
ANALYSIS DATE: June 17, 1994

PROJECT CODE: FAIR1993
REF.#: 60,675
STATION: MW-1
TIME SAMPLED: 9:40
SAMPLER: Kristen Underwood

Parameter	Sample(ug/L)	Spike(ug/L)	Dup1(ug/L)	Dup2(ug/L)	Avg % Rec
Benzene	ND[1]	10	10.0	9.6	98%
Toluene	ND	10	9.9	9.6	98%
Ethylbenzene	ND	10	9.8	9.7	98%
Xylenes	ND	30	29.0	28.8	96%

NOTES:
1 None detected

ENDYNE, INC.

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Williston, Vermont 05495
(802) 879-4333

10269

CHAIN-OF-CUSTODY RECORD

GI # 1944481

Project Name: Fairdale Farms Site Location: Bennington, VT	Reporting Address: Griffin International PO Box 943 Williston VT ←	Billing Address: Same
Endyne Project Number: FAI-1913	Company: Griffin Contact Name/Phone #: R Underwood	Sampler Name: R Underwood Phone #: 802 [illegible]

Lab #	Sample Location	Matrix	GRAB	COMP	Date/Time	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
(60671	Trip Blank	W	✓		6-13-94 0935	2	40mL G	BTEX + MTBE ←	602	HCl	
(60675	MW-1	GW	✓	AMK 6/14	" 0940	2	"	"	602	HCl	
(60676	Duplicate (MW-1)	GW	✓	KLH AMK	" 0940	2	"	"	602	HCl	
(60677	Field Blank	W	✓		" 1225	2	"	"	602	HCl	

Relinguished by: Signature R Underwood	Received by: Signature Rexa Turmel	Date/Time 6-14-94 1105
Relinguished by: Signature Rexa Turmel	Received by: Signature [illegible]	Date/Time 6/14/94 [illegible]

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_5	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):										

ENDYNE, INC.

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32 James Brown Drive
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FAX 879-7103

REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International
PROJECT NAME: Fairdale Farms
REPORT DATE: July 5, 1994
DATE SAMPLED: June 23, 1994

PROJECT CODE: GIFF1109
REF.#: 61,176

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody indicated samples were preserved with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was 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 recovery data was determined to be within laboratory QA/QC guidelines unless otherwise noted.

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

EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Fairdale Farms
REPORT DATE: July 5, 1994
DATE SAMPLED: June 23, 1994
DATE RECEIVED: June 24, 1994
ANALYSIS DATE: July 1, 1994

PROJECT CODE: GIFF1109
REF.#: 61,176
STATION: MW-2
TIME SAMPLED: 10:40
SAMPLER: K. Underwood

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	5.7
Toluene	1	ND
Xylenes	1	10.5
MTBE	10	14.3

Bromobenzene Surrogate Recovery: 101%

NUMBER OF UNIDENTIFIED PEAKS FOUND: >10

NOTES:
1 None detected

ENDYNE, INC.

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

CHAIN-OF-CUSTODY RECORD

10634

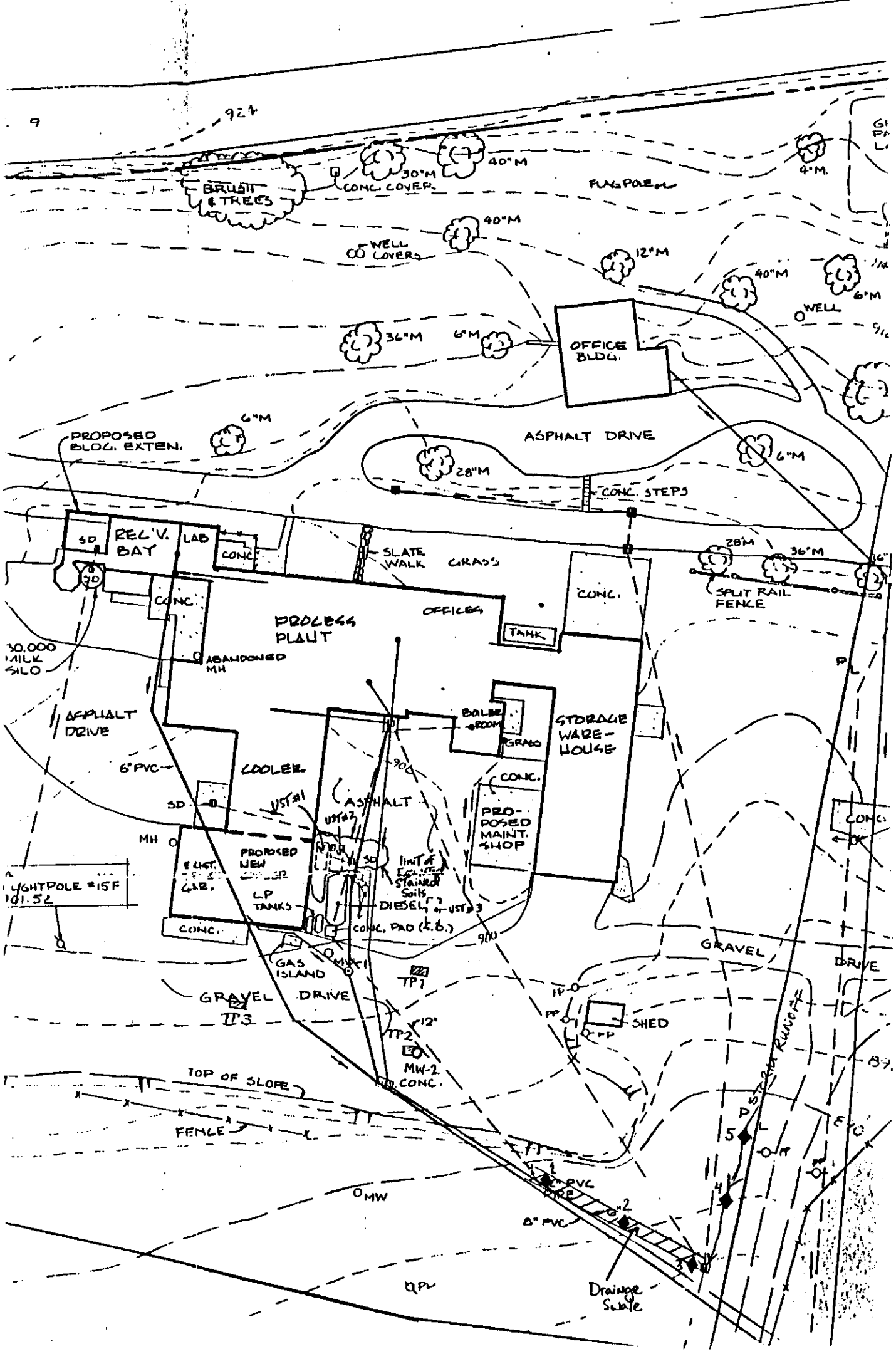
Project Name: Fairdale Farms Site Location: Bennington VT	Reporting Address: Griffin International PO Box 942 Williston VT 05495	Billing Address: Same
Endyne Project Number: G.FF-1109	Company: Griffin International Contact Name/Phone #: 202 865-4284	Sampler Name: K. Lindenmood Phone #: 802 865-4288

Lab #	Sample Location	Matrix	GRAB	COMP	Date/Time	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
04178	MW-2	GW	✓		6/23/94 1040	2	40mL V		602	HCl	

Relinquished by: Signature Kristen Lindenmood	Received by: Signature	Date/Time
Relinquished by: Signature	Received by: Signature	Date/Time

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_5	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):										



LEGEND

- STRUCTURE
- EDGE OF PAVEMENT
- PROPERTY LINE
- HIGHWAY R.O.W.
- 10' CONTOUR
- 2' CONTOUR
- STORM WATER
- SANITARY SEWER
- PROCESS WASTEWATER
- STORM DRAIN
- MH MANHOLE
- MW MONITORING WELL
- POWER POLE
- CLEANOUT OR FLOOR DRAIN
- DIRECTION OF FLOW
- I.P. IRON PIN
- TEST PIT LOCATION
- 5 SWALE/STREAM SCREENING LOCATION/NUMBER

N

FAIRDALE FARMS

EXISTING SITE PLAN

BENNINGTON, VERMONT

Dufresne-Henry Inc.
Precision Park
No. Springfield, Vermont 05150

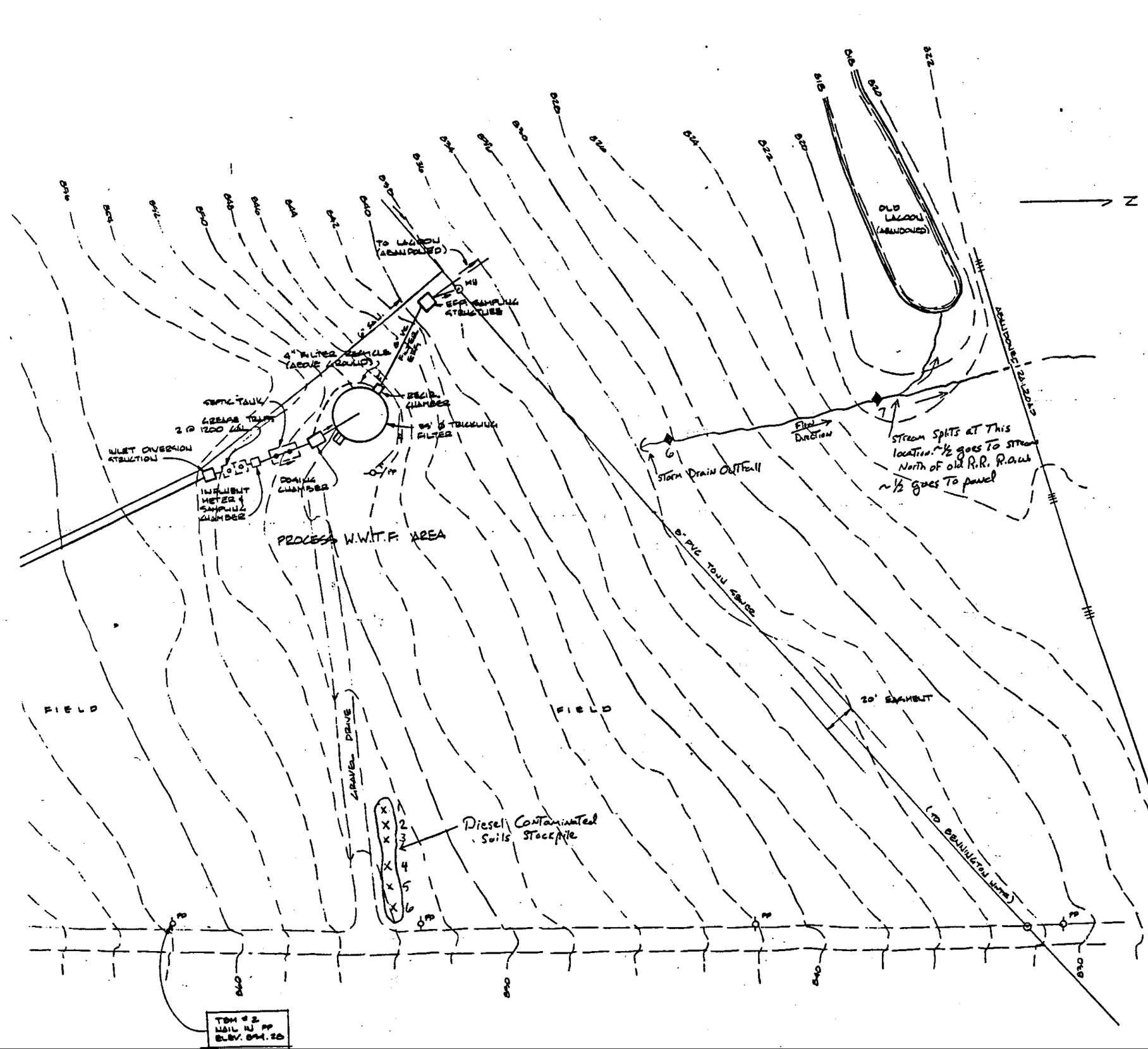
Client No.	090003
Proj. Manager	NGT
Proj. Designer	
Drawn By	ORP
Checked By	NGT
Scale	1" = 62'
Approved	NGT
Date	NOV, 1990
Sheet	1 of 2
D	13,562

SITE MAP
Sheet 1 of 2
Fairdale Farms, Bennington, VT

Source: Base Map and Legend obtained from Dufresne-Henry, Inc. Existing Site Plan, Nov. 1990

SITE MAP
Sheet 2 of 2
Fairdale Farms, Bennington, VT

Source: Base Map and Legend obtained from Dufresne-Henry, Inc. Existing Site Plan, Nov. 1990



LEGEND

- STRUCTURE
- EDGE OF PAVEMENT
- PROPERTY LINE
- HIGHWAY R.O.W.
- 10' CONTOUR
- 2' CONTOUR
- STORM WATER
- SANITARY SEWER
- PROCESS WASTEWATER
- STORM DRAIN
- MH — MANHOLE
- MW — MONITORING WELL
- POWER POLE
- CLEANOUT OR FLOOR DRAIN
- DIRECTION OF FLOW
- I.P. — IRON PIN
- 5 ◆ — SWALE/STREAM SCREENING, LOCATION/NUMBER
- 2 X — STOCKPILED SOIL SCREENING, LOCATION/NUMBER

FAIRDALE FARMS

EXISTING SITE PLAN

BENNINGTON, VERMONT

Dufresne-Henry Inc.
Precision Park
No. Springfield, Vermont 05150

Client No.	090003
Proj. Manager	NGT
Proj. Designer	
Drawn By	CJD
Checked By	NGT
Scale	1" = 62'
Approved	NGT
Date	FEB. 1991

Sheet 2 of 2
D 13,563