HYDROGEOLOGIC ASSESSMENT REPORT

Kwik Kleen Site Spill

Saratoga County, Town of Moreau

New York

Site No. 885323

Submitted to:

New York State Department of Environmental Conservation
Region 5 - Environmental Quality
Hudson Street
Warrensburg, New York 12885

April 1989

Prepared by:
ENVIRONMENTAL OIL, INC.
Geotechnical Division
P.O. Box 315
Syracuse, New York 13209

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICS

1.- INTRODUCTION

1.1 Background

Environmental Oil, Inc. of Albany was requested by the New York State Department of Environmental Conservation (NYS DEC) - Region 5, to perform a hydrogeologic assessment relating to a spill in the autumn of 1988involving approximately 300 gallons of methylene chloride and unknown quantities of toluene and acetone at the Kwik Kleen furniture stripping shop. This site is located at the intersection of Fawn Road and Route 9 in the Town of Moreau, Saratoga County, New York (Figs. 1A and 1B). The approximate site geographic coordinates are $^{6}07^{000m}$ E. and $^{47}88^{500m}$ N. Since the spill the shop has been out of operation due to a fire.

Water for residential domestic use is obtained from private wells which are mostly screened in the upper unconsolidated aquifer.

1.2 Site Characteristics

1.2.1 Physiography, Topography and Drainage

The Kwik Kleen site lies in the northern Hudson Lowlands which form part of the northern Appalachian Region and only 1.5 miles to the east of the Palmertown Range (Adirondack Mountains) (Fig. 2).

The topography at the site and immediate surroundings is essentially flat with an approximate elevation of 340 feet above Mean Sea Level (Fig. 1A). The site is situated about 500 feet to the west of the uppermost reaches of an intermittent stream which deepens to the south and drains to the North Branch which is a perennial tributary stream of the Hudson River (Fig. 7A).

1.2.2 Regional Geology

Geologically, the area of study has been the location of deposition of Late Cambriam fluvial clastics (Potsdam Sandstone), Late Cambriam (Beekmantown Group) and Late Ordovician (Black River and Trenton Groups) marine shelf carbonates which deepen in depositional facies upward into marine black shales (Trenton Group) (Fisher and others, 1970; Fisher, 1977; Roma-Hernandez, 1987) (Figs. 3 and 4).

These deposits have been slightly affected by compressional deformation in the continental foreland by an arc collision during the Taconic Orogeny (Chapple, 1973; Rowley and Kidd, 1981). This orogeny was followed by a period of relaxation which is evidenced by tensional (normal) faults (Fisher, 1977) (Figs. 2 & 4). Later on, the area has

been variably affected by uplift and erosion during the Cenozoic Era and glacial erosion and deposition during the more recent Pleistocene Epoch (Fisher, 1973).

The surficial geology of the Hudson Lowlands in Saratoga County is dominated by Pleistocene unconsolidated lacustrine, well sorted, stratified sands that were deposited during or after the last period of glaciation (Cadwell and Dineen, 1987) (Figs. 2 and 5).

1.2.3 Regional Hydrogeology

Groundwater occurs in the surficial unconsolidated sediments and presumably in the deeper bedrock deposits. Groundwater receives recharge from the infiltration of snowmelt and rainwater through the soil to the saturated zone. Discharge occurs mainly in streams, lakes or ponds and topographically low wetlands.

The Kwik Kleen Site and its vicinity has been reported to lie over an unconfined aquifer with a potential yield of water of 10 to 100 gallons per minute and it consists of sand and gravel with a saturated zone that frequently is less than 10 feet thick, or thicker but with less permeable silty sand and gravel (Bugliosi and others, 1988) (Fig. 6). This information appears to be consistent with a previous Environmental Oil, Inc. investigation (below) which revealed subsurface soils consisting of predominantly medium to coarse grained sand. Data generated from this phase of work shows that groundwater flow appears to be in a general southerly direction.

1.3 Previous Work

The initial response to the spill, as requested by the NYS DEC, was intended to determine the hydrogeologic conditions of the site and the extent of contamination. As a result one (1) recovery well and five (5) monitoring wells were installed by Domermuth Environmentla Services on September 24 and 25, 1988. This Phase-I Investigation provided data for defining the hydrogeologic characteristics of the site (Section 3.1). Methylene chloride contamination was observed in monitoring wells MW-1, MW-2, and the recovery well RW-1 (Adirondack Environmental Services, 1988). An air stripper and water table depression pump recovery system was placed on site as an emergency remediation action by a remediation contractor.

A remedial investigation proposal was submitted to the NYS DEC-Region 5 on December 19, 1988 by Environmental Oil, Inc. This proposal was intended to characterize the hydrogeological conditions and the extent of contamination at the site as well as the effectiveness of the recovery system. Environmental Oil Inc. was retained to conduct this second phase investigation.

1.4 Objective

As stated in the previous Remedial Investigation Proposal submitted to the NYS DEC Region 5 the purpose of this hydrogeologic assessment was to:

1) Characterize the local hydrogeological conditions.

2) Determine the impact of the spill and extent of the contaminant plume involving chlorinated hydrocarbons such as methylene chloride in addition to toluene and acetone.

3) Evaluate the effectiveness of the existing recovery system and provide recommendations where changes are warranted.

2.- SITE INVESTIGATIONS

2.1 Literature Review

Geologic and hydrogeologic information obtained from the previous investigation and from publicly available sources was collected and reviewed as part of the investigation to develop an understanding of the local geology and hydrogeology. This information included publicly available soil surveys, geologic reports and publications, USGS 1:24,000 scale topographic maps, aerial photographs, surficial and bedrock geology maps, climatological data, and other publicly available documents or publications relating to the site.

2.2 Monitoring Well Installation

Prior to the commencement of this Phase-II Investigation, one (1) recovery well and (5) monitoring wells were installed at the site. For test and construction logs on these monitoring wells, reference Domermuth Environmental Services (1988). Four additional groundwater monitoring wells were installed during January 9 to January 27, 1989 in the site area to further characterize the hydrogeological conditions and the contaminant plume. Monitoring well locations are shown on Figures 1B and 7. Subsurface test boring and monitoring well construciton logs are presented in Appendix A.

2.2.1 Decontamination Methods

A decontamination area was set up for all drilling equipment and well materials prior to the commencement of drilling activities. A portable steam cleaning unit was utilized to decontaminate the drill rig between each boring. Split spoon samplers were decontaminated after each use.

The decontamination pad consisted of an excavated area which was banked to a sump which collected the rinse water. The area was lined with plastic to prevent infiltration into the ground. The sides were diked to enhance containment. Rinse water was pumped from the collection area and run through the air stripper prior to discharge back into the ground, as per agreement with NYS DEC officials.

2.2.2 Well Drilling Methods

A Canterra CT 400 drill rig with 6 1/4 inch hollow stem augers, owned and operated by Environmental Oil, Inc. began the advancement of the first boring on January 9, 1989. At a depth of approximately 30 feet, drilling by this method was no longer possible due to heaving sands characteristic of the surficial sediments. An air rotary drill rig owned and operated by the Hansen Well Drilling and Pump Co., Inc. arrived on site the morning of January 11, 1989. This air rotary drilling method was selected as it is better suited to

control the soft, heaving sand and prevent cave in. The rig was equipped to drive casing during drilling operations, as is sometimes necessary for softer unconsolidated deposits prone to cave in.

Drilling continued at the same location at which the augers had been advanced previously. Upon reaching a total depth of approximately 55 feet, the installation of well MW-6 was begun. Heaving sands once again hindered well installation efforts, as a plug had developed at the bottom of the casing. This plug prevented the well from being properly set as the casing was removed. The hole was re-drilled twice in an effort to remove this plug, but after several unsuccessful attempts to install the well, it was decided to switch to a mud-rotary drilling method. A mud mixture injected into the boring during drilling operations would provide adequate pressure to minimize cave-in of the soft sand sediment, and would facilitate well installation. Drilling operations were temporarily shut down on January 12, 1989.

A hydrogeologist from the consulting firm of Clough, Harbour & Associates was retained as a specialist of the mud drilling method. Drilling operations resumed on January 17, 1989 with the arrival of the mud rotary rig on site, owned and operated by the Hansen Well Drilling and Pump Co. A "Revert" mud mixture was applied to each boring. Drilling by means of this method facilitated the installation of monitoring wells MW-6 through MW-9.

2.2.3 Geologic Sampling

Soil samples were collected by means of a split spoon sampler during drilling operations and were inspected in the field by a hydrogeologist. Subsurface logs were prepared based upon this sample evaluation, and are presented in Appendix A. The careful inspection of all soil samples took place in order to identify a suspected underlying clay layer. The importance of identifying this layer rests upon the tendency of methylene chloride to pool on top of relatively impervious boundaries. An underlying clay layer, therefore, would provide a vertical migration limit of the spill.

2.2.4 Well Design

Monitoring wells were constructed of 4 inch I.D. PVC well screen (0.01 inch slots) and riser. Four inch wells were selected over a smaller diameter in the event that these wells are to be used for recovery purposes. The total depths of wells MW-6, MW-7, MW-8, and MW-9 are 40, 60, 70 and 70 feet, respectively. The length of well screen for wells MW-6 and MW-7 were selected such that the top of the screen for MW-7 was below the bottom of MW-6 (i.e. screened sections do not intersect on a horizontal plane). This design has some degree of similarity to that of a well cluster and is done in order to provide data on water quality with depth (Fig. 8).

Following the installation of the well screen and riser in each borehole, a select silica sand pack (4Q grade) material was placed in the annulus between the screened section and

the borehole. This sand pack was extended no less than one foot above the top of the well screen. A two foot bentonite seal was placed above the sand pack to prevent the access of surface water into the wells. The remaining space was backfilled with sand and topped off with a cement seal. A protective curb box was bolted in place at ground level for each well (Appendix A).

2.2.5 Well Development

Wells MW-6 through MW-9 were developed with a submersible pump in order to 1) repair damage to the geologic deposits by the drilling operation so that the natural hydraulic properties are restored, 2) alter the basic physical characteristics of the aquifer near the well screen so that water will flow more freely to the well and 3) provide to the maximun extent water free of suspended solids for sampling.

Wells were developed to less than 50 NTU as measured by a portable Nephthlametric Turbidity Meter. Groundwater evacuated from the wells during development was run through the air stripper prior to discharge.

2.3 Site Survey

A location and elevation survey of the project area was performed on February 8, 1989 by Environmental Oil, Inc. personnel. The survey included the determination of the top of well casing elevation for all site wells, both previously existing and new. All elevations were referenced to an arbitrarily selected point which was assigned an elevation of 100 feet.

Data generated from this elevation survey, along with the measured locations of the wells and site structures, were used to prepare the base and water table maps shown in Figures 1B and 7. The depth to groundwater was measured in each well and was converted to a groundwater elevation value based on the established datum of 100 feet.

2.4 Groundwater Sampling and Analysis

Groundwater samples were obtained from each monitoring well on March 18, 19, and 20, 1989, by an Environmental Oil, Inc. sampling technician. Three to five well volumes of water were removed prior to obtaining the sample in order to ensure that the sample was representative of water within the aquifer. Sampling was accomplished by using a clean PVC bailer in wells MW-1 through MW-5.

For the deeper wells MW-6 to MW-9 a submersible Teel pump was used to remove an initial two to three volumes because of the larger volume of water in these wells. The final two to three volumes were removed manually to negate the effects of the pumping, which would tend to strip the contaminants from the water, thereby rendering laboratory

results invalid. This purging method was confirmed with NYS DEC officials prior to commencement of sampling.

All groundwater samples were collected in 40 ml. glass vials and placed on ice. Samples were delivered to NET Laboratories in Syracuse, New York, by Environmental Oil, Inc. personnel, and were analyzed as per EPA Method 624. Results of laboratory analysis are included in Appendix B of this report.

The pump used to purge the deep wells was decontaminated as described in Section 2.2.1 between each well location. Dedicated bailers have been placed in each well for sample collection.

2.5 Recovery System Effluent Monitoring

Environmental Oil, Inc. is currently filing for a State Pollution Discharge Elimination System (SPDES) Permit with the NYS DEC. This permit would require the submission of monthly Discharge Monitoring Reports (MDMR's) to the appropiate state office to monitor the air stripper effluent for contamination.

3.- SITE ASSESSMENT

3.1 Site Geology

Drilling activities revealed the site to be underlain by medium to coarse grained sands which become gradually finer with increasing depth. The sand continues to a depth of approximately 60-70 feet, and is underlain by a minimun of two feet of silty clay (Appendix A; Figure 8). The observation of these sands is consistent with the surficial lacustrine sands that have been mapped and interpreted by Cadwell and Dineen (1987) in the site area. The thickness of the underlying silty clay unit is unknown.

The silty clay unit is of particular interest to this investigation because of its low permeability character which would provide for vertical containment of the methylene chloride spill. It was suspected prior to drilling operations that this underlying layer was present. This hypothesis was based upon subsurface data on file with the NYS DEC which showed other sites in the region as being underlain by silty clay, and a NYS Geological Survey map which shows surficial silt and clay for outlying areas. Subsurface logs for the deeper wells do in fact indicate the presence of silty clay at approximately 70 feet (Appendix A; Figure 8).

The overburden unconsolidated deposits are underlain presumably by the Snake Hill Shale (Trenton Group) of Late Ordovician age. This interpretation is based on reviewed publicly available geological data. The Snake Hill Shale is laterally correlative with the Canajoharie or Utica Shale to the west.

3.2 Site Hydrogeology

3.2.1 Groundwater Occurrence and Flow

The principal water-bearing geological unit in this area is the surficial layer of sand. The depth to groundwater was found to vary from approximately 15 to 20 feet across the site (as per February 9, 1989) (Figs. 7 and 8).

The initial local groundwater flow direction as determined on October 10, 1989, prior to the commencement of pumping activities, appears to be to the south (Domermuth Environmental Services, 1988). This direction of flow was expected from the surface drainage and geological characteristics of the site (Section 1.2.1). The current groundwater flow pattern accross the site has been slightly modified because of 1) the pumping activity of the recovery well with the formation of a cone of depression and 2) the formation of a local groundwater mound related to treated effluent discharge (Fig. 7). The inferred site groundwater flow pattern shown in Figures 7 and 8 indicates that the general direction of flow is to the south and that the radius of influence of the recovery well has expanded almost or entirely across the site area. The estimated dimensions of the cone of depression

are 90 x 3 feet (max. diameter x drawdown in recovery well).

Additional investigation would be needed for knowing if the cone of depression will continue to enlarge. However, it is likely that near drawdown equilibrium conditions have been achieved because it is thought that a cone of depression of these dimensions in relatively permeable sands intercepts enough of the flow in the aquifer to equal the pumping rate of the recovery well (3-5 gal/min). Other factors may also influence drawdown equilibrium conditions (Driscoll, 1987).

A quantitative determination of hydraulic characteristics of the aquifer via field permeability testing was not possible during this phase of the investigation due to cold weather conditions which threatened to freeze the lines to the air stripper should the pump be shut down, as would be necessary for such a test. However, the presence of drinking water wells in the vicinity of the site would indicate a fairly high yield aquifer. Also, it is noted that the current air stripper/groundwater recovery pump system operates continuously at approximately 3-5 gallons per minute, with an apparent cone of deppresion of dimensions 90 x 3 feet (above). Thus, the aquifer is well-suited for remediation by means of the existing type of recovery system.

3.2.2 Groundwater Quality

The laboratory results presented in this report (Appendix B) reflect the quality of groundwater samples collected from all the monitoring wells which were obtained on March 18-20, 1989. These samples were analyzed for the parameters outlined EPA Method 624. The results revealed acetone in the groundwater ranging from less than 5 ppb (parts per billion) to 15 ppb across the site. Toluene was detected in concentrations ranging from 3 to 8 ppb. Methylene chloride was not detected in any concentration greater than the lower detection limit of 1 ppb.

4.- CONCLUSIONS

The investigation described herein revealed the following results concerning the project site:

1) The site is underlain by sand, presumably of glacio-lacustrine origin, which form a relatively high yield aquifer. This sand is medium to coarse grained in the upper portion of the aquifer and grades downward to a fine or very fine silty sand. This sandy unit is underlain by a silty clay at a depth of approximately 70 feet. The silty clay deposit is believed to form a relatively impervious lower boundary of the aquifer.

2) The depth to groundwater is approximately 15 to 20 feet (date), and groundwater flow is to the south.

3) Laboratory analysis of groundwater samples revealed the presence of acetone and toluene. Concentrations ranged from non-detectable to 15 ppb for acetone and non-detectable to 8 ppb for toluene. Methylene Chloride was not detected in any concentration greater than the 1 ppb lower detection limit.

4) The air stripper/groundwater recovery system is operating continuously at a rate of approximately 5 gpm.

5.- RECOMMENDATIONS

Based on the above conclusions, the following recommendations are provided:

1) The recovery system should continue to operate at the same recovery point. The permanent location of this system would be determined by the results of future sampling rounds. A SPDES permit has been filed by Environmental Oil, Inc. for the continued operation of the system. It is believed that the groundwater recovery pump and air stripper are compatible with the aquifer yield.

2) Future rounds of groundwater samples should be collected monthly at each well, including the recovery well (influent and effluent). These samples should be analyzed as per EPA Method 624.

3) Drinking water from wells on adjacent properties should be sampled monthly and analyzed as per EPA Method 624.

4) Groundwater levels should be measured monthly, and groundwater contour maps prepared from this date.

6 .- REFERENCES

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TABLES

Table I

Groundwater Table Elevations (ft.)

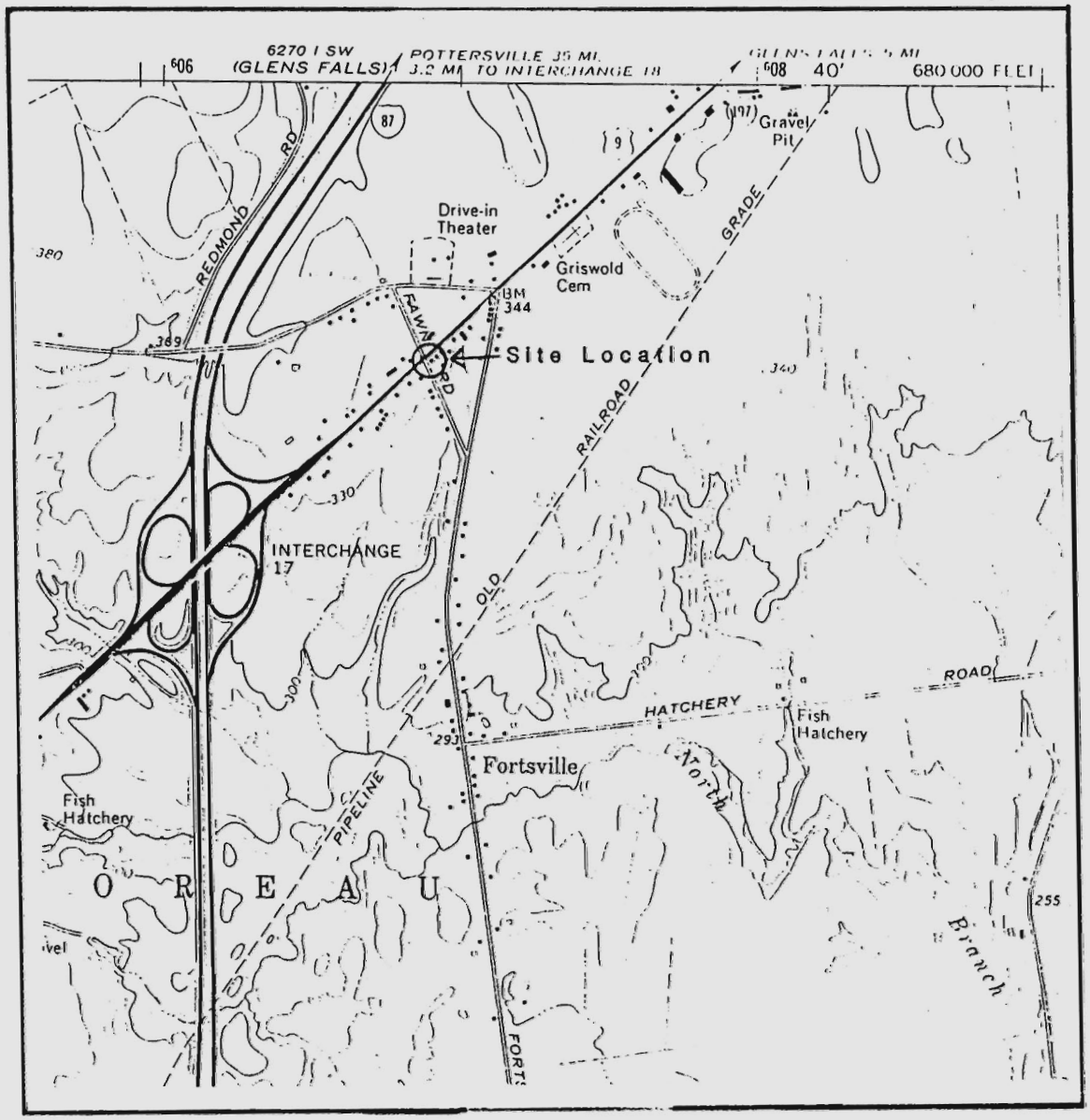
Well Number	Top of Casing Elevation	Depth to Groundwater	Groundwater Elevation
MW-1	96.65	16.06	80.59
MW-2	96.19	14.43	81.76
MW-3	96.80	14.19	82.61
MW-4	100.77	19.57	81.20
MW-5	100.57	19.77	80.80
MW-6	96.07	15.93	80.14
MW-7	96.62	16.27	80.35
MW-8	99.21	18.05	81.16
MW-9	96.61	16.48	80.13
RW	96.83	19.18	77.65

Note: All elevations have been referenced to an arbitrary datum having an assumed elevation of 100 feet.

FIGURES

FIG-1A. - LOCATION OF KWIK KLEEN SPILL SITE

Source: USGS Ganesvoort Quadrangle

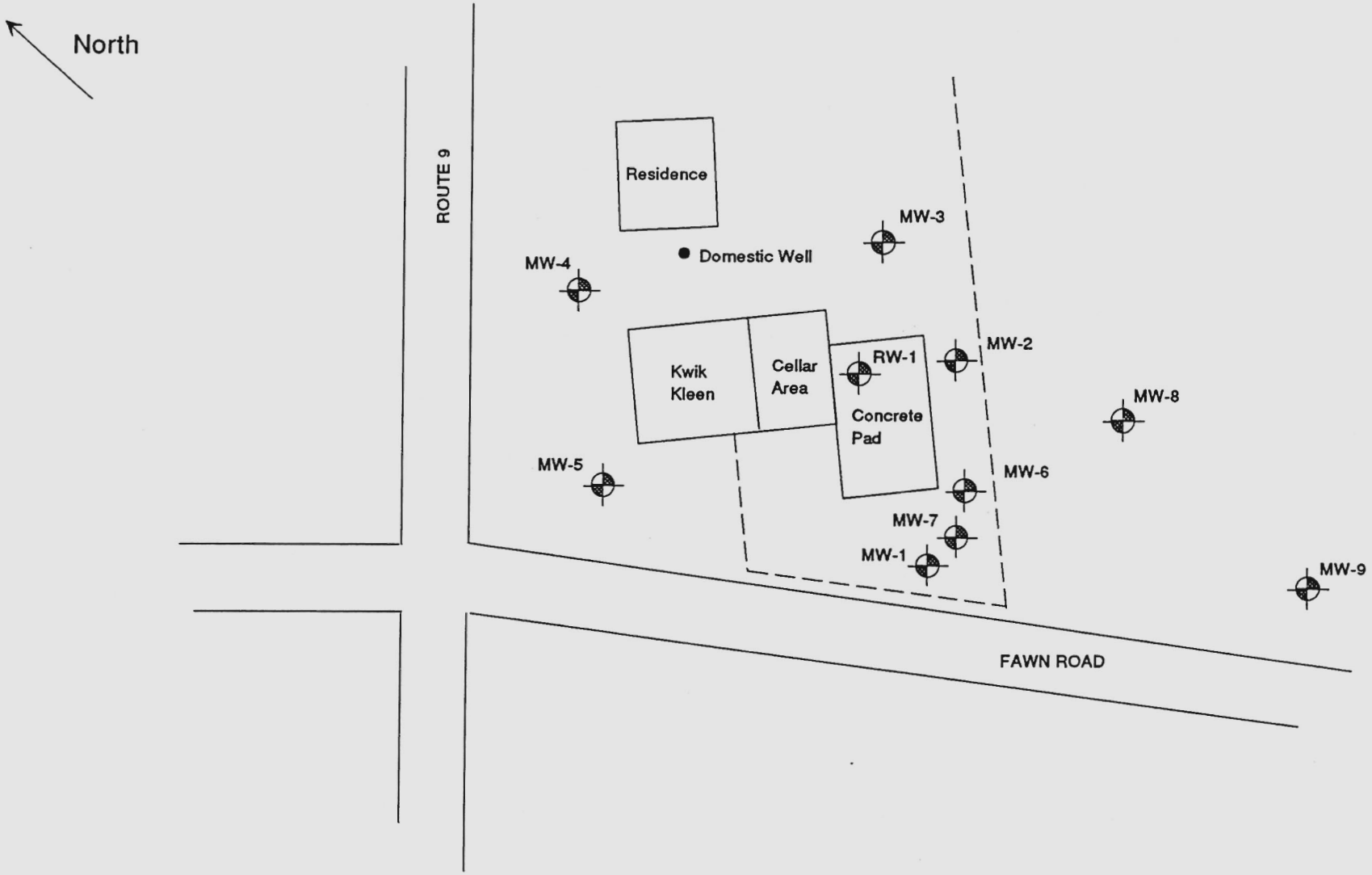


SCALE 1:24 000

1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 KILOMETER

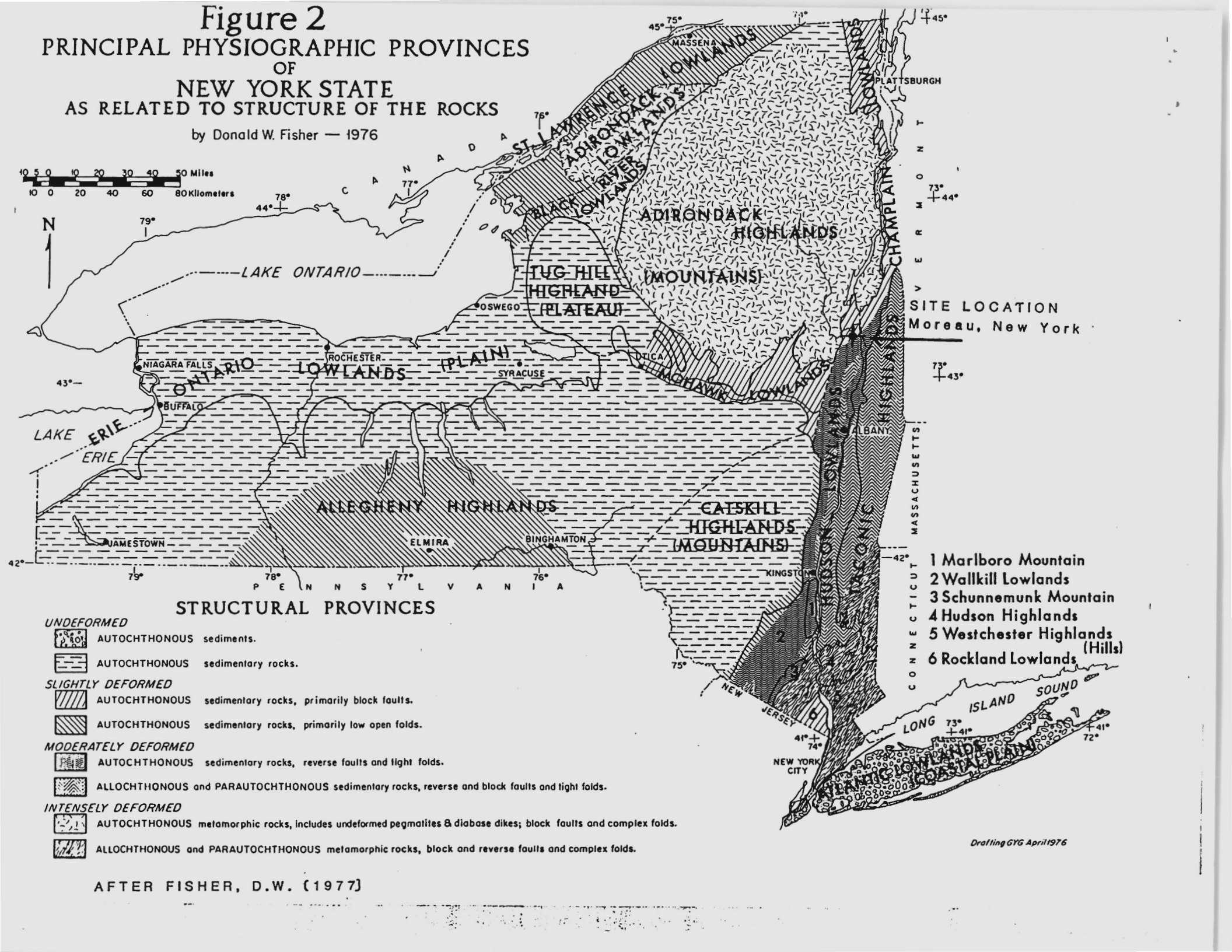


ENVIRONMENTAL OIL, INC. Syracuse, NY		DATE: 2/09/89	PROJECT NO.: A8030
BASE MAP	Kwik Kleen Site Route 9 South Glens Falls, NY	SCALE: 1" = 50'	FIGURE NO.: 1b
		DRAWN BY: Roe/Potts	LOCATION: South Glens Falls, NY

Figure 2

PRINCIPAL PHYSIOGRAPHIC PROVINCES OF NEW YORK STATE AS RELATED TO STRUCTURE OF THE ROCKS

by Donald W. Fisher — 1976



STRUCTURAL PROVINCES

UNDEFORMED

- AUTOCHTHONOUS sediments.
- AUTOCHTHONOUS sedimentary rocks.

SLIGHTLY DEFORMED

- AUTOCHTHONOUS sedimentary rocks, primarily block faults.
- AUTOCHTHONOUS sedimentary rocks, primarily low open folds.

MODERATELY DEFORMED

- AUTOCHTHONOUS sedimentary rocks, reverse faults and tight folds.
- ALLOCHTHONOUS and PARAUTOCHTHONOUS sedimentary rocks, reverse and block faults and tight folds.

INTENSELY DEFORMED

- AUTOCHTHONOUS metamorphic rocks, includes undeformed pegmatites & diabase dikes; block faults and complex folds.
- ALLOCHTHONOUS and PARAUTOCHTHONOUS metamorphic rocks, block and reverse faults and complex folds.

Drafting GYG April 1976

AFTER FISHER, D.W. (1977)

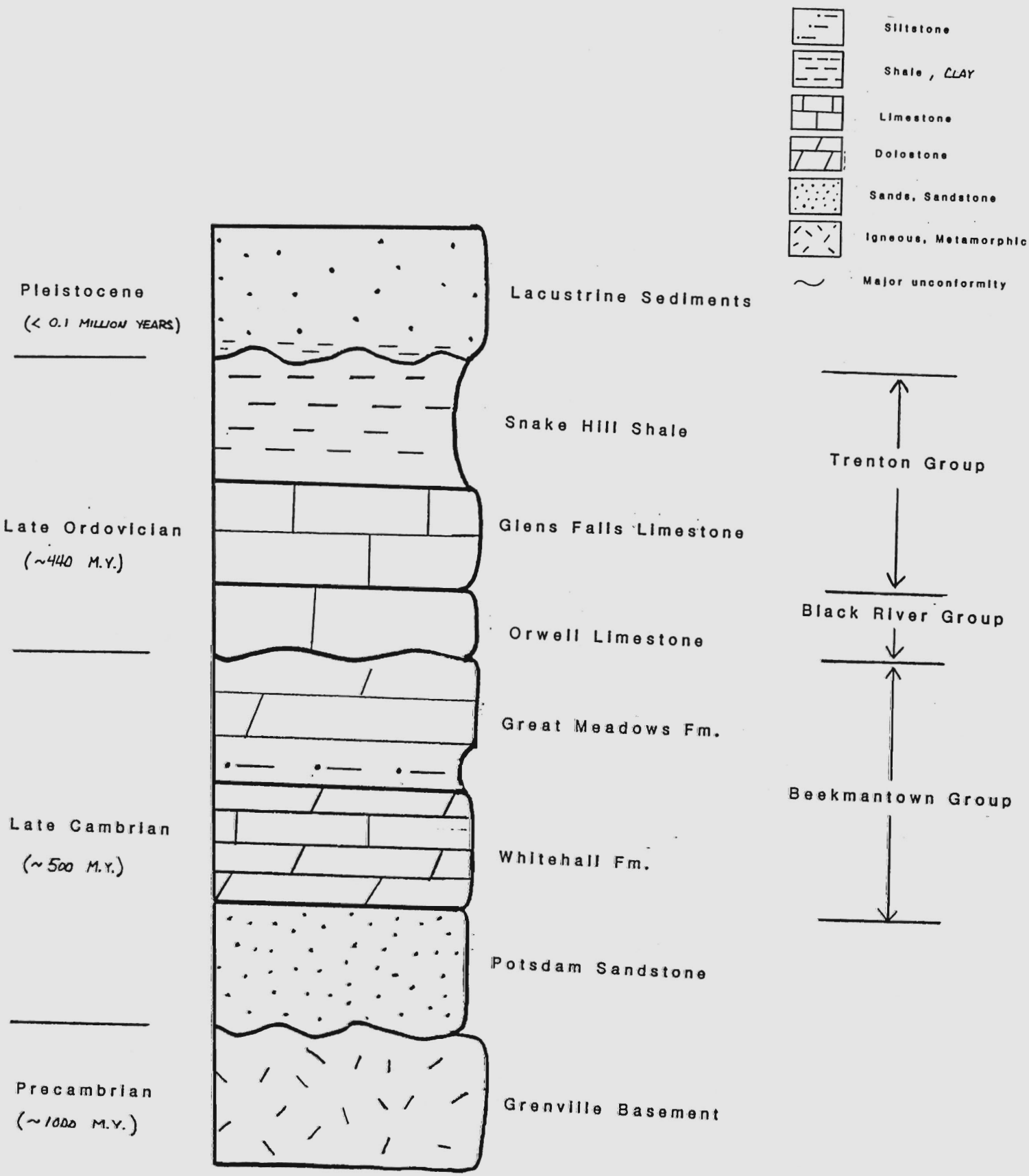
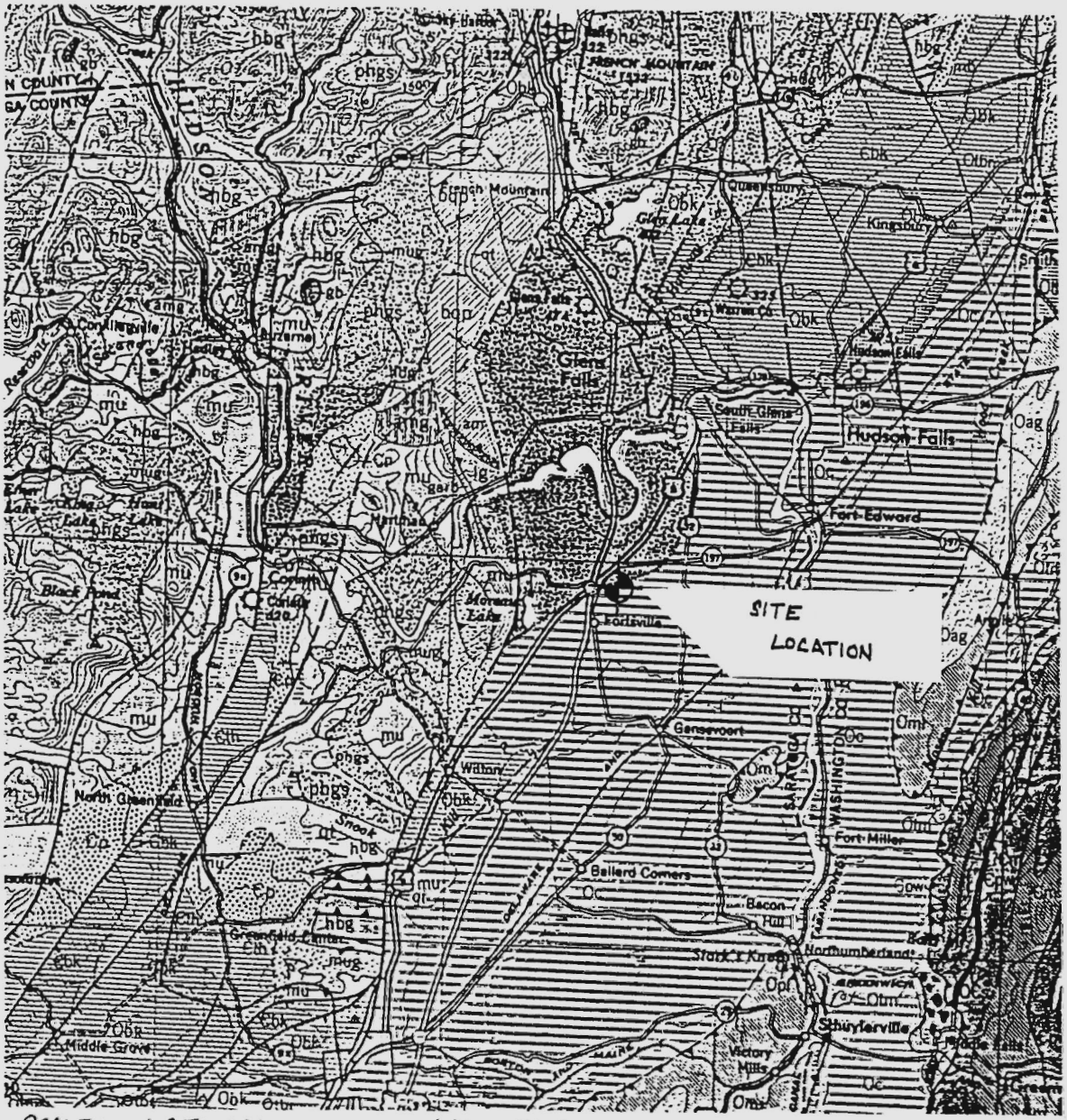


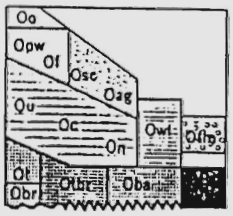
Fig. 3 - Generalized stratigraphy of the Glens Falls area, New York



SCALE: 1:250,000 After Fisher, Isachsen, and Richard, 1970

GLACIAL AND ALLUVIAL DEPOSITS

Q Underlying bedrock geology unknown.



LORRAINE, TRENTON, AND BLACK RIVER GROUPS
up to 4,500 ft. (1400 m.)

Oo Oswego Sandstone

Opw Pulaski and Whetstone Gulf Formations—shale, siltstone.

Of Frankfort Formation—shale, siltstone.

Osc Schenectady Formation—graywacke, sandstone, siltstone, shale.

Oag Austin Glen Formation—graywacke, shale.

Ou Utica Shale.

Oc Canajoharie Shale.

On Normanskill Shale—minor mudstone, sandstone.

Owl Walloomsac Formation—slate, phyllite, schist, metagraywacke.

Ot Trenton Group. Denley, Sugar River, Kings Falls, and Rockland Limestones.

Obr Black River Group: Chaumont Limestone—chert; Lowville Limestone; Pamelia Dolostone.

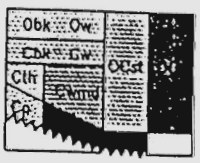
Otbr Mohawk Valley: Trenton and Black River Groups—Dolgeville, Denley, Sugar River, Kings Falls, Glens Falls, Rockland, Amsterdam, and Lowville Limestones.
Washington County: Glens Falls and Orwell Limestones.

Oba Balmville Limestone. Vermont: Whipple Limestone.

Otm Taconic Mélange—chaotic mixture of Early Cambrian thru Middle Ordovician pebble to block-size angular to rounded clasts in a pelitic matrix of Middle Ordovician (Barneveld) age. Rims and floors earlier submarine gravity slides of Taconian Orogeny.

OCs Cambrian thru Middle Ordovician (Barneveld) carbonate rocks occurring as slivers caught along thrusts of later allochthones, or carbonate blocks in Taconic Mélange.

OCh Horses along normal faults.



BEEKMANTOWN AND STOCKBRIDGE GROUPS, POTSDAM SANDSTONE, AND VERMONT VALLEY SEQUENCE
up to 3,500 ft. (1100 m.)

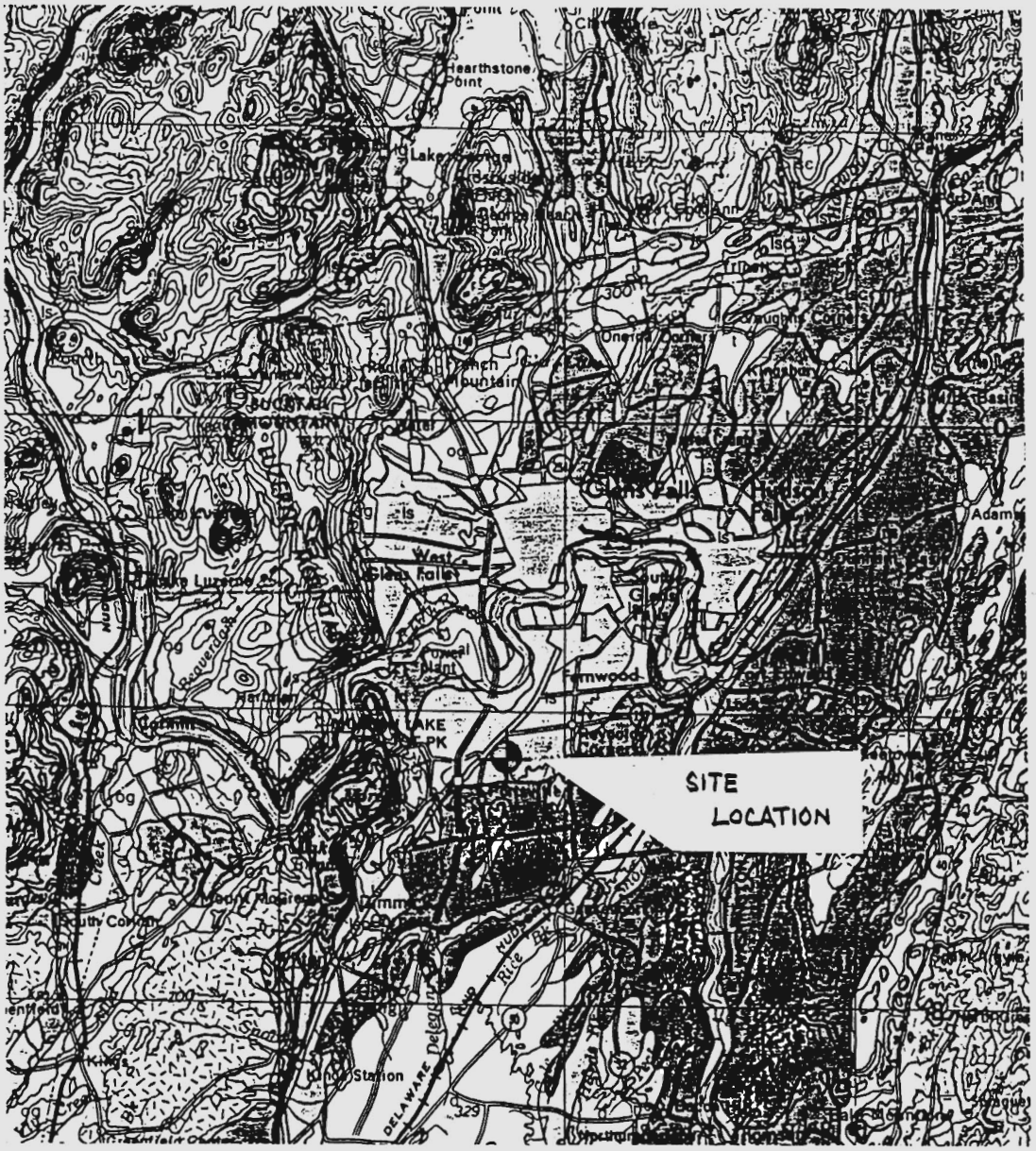
Obk Beekmantown Group.
Mohawk Valley: Chuctanunda Creek Dolostone; Tribes Hill Formation—limestone, dolostone; Gailor Dolostone.
Washington County: Providence Island Dolostone; Fort Cassin Formation—limestone, dolostone; Fort Ann Formation—limestone, dolostone; Cutting Formation—dolostone, local chert, limestone at top, siltstone at base.

Ow Columbia County: Copake Formation—limestone, dolostone; Rochdale Limestone; Halcyon Lake Formation—chert, calc-dolostone.

OCst Stockbridge Formation—calcitic and dolomitic

TENSIONAL (NORMAL) FAULTS

Regional Bedrock Geology



1:250,000

After Cadwell and Dineen, 1987

lsc — **Lacustrine silt and clay**
Generally laminated silt and clay,
deposited in proglacial lakes,
generally calcareous,
potential land instability,
thickness variable (up to 100 meters).

ls — **Lacustrine sand**
Sand deposits associated with large bodies of water,
generally a near-shore deposit or near a sand source,
well sorted, stratified,
generally quartz sand,
thickness variable (2-20 meters).

Regional Surficial Geology

After Bugliosi, Trudell, and Casey 1987

1:250,000

EXPLANATION

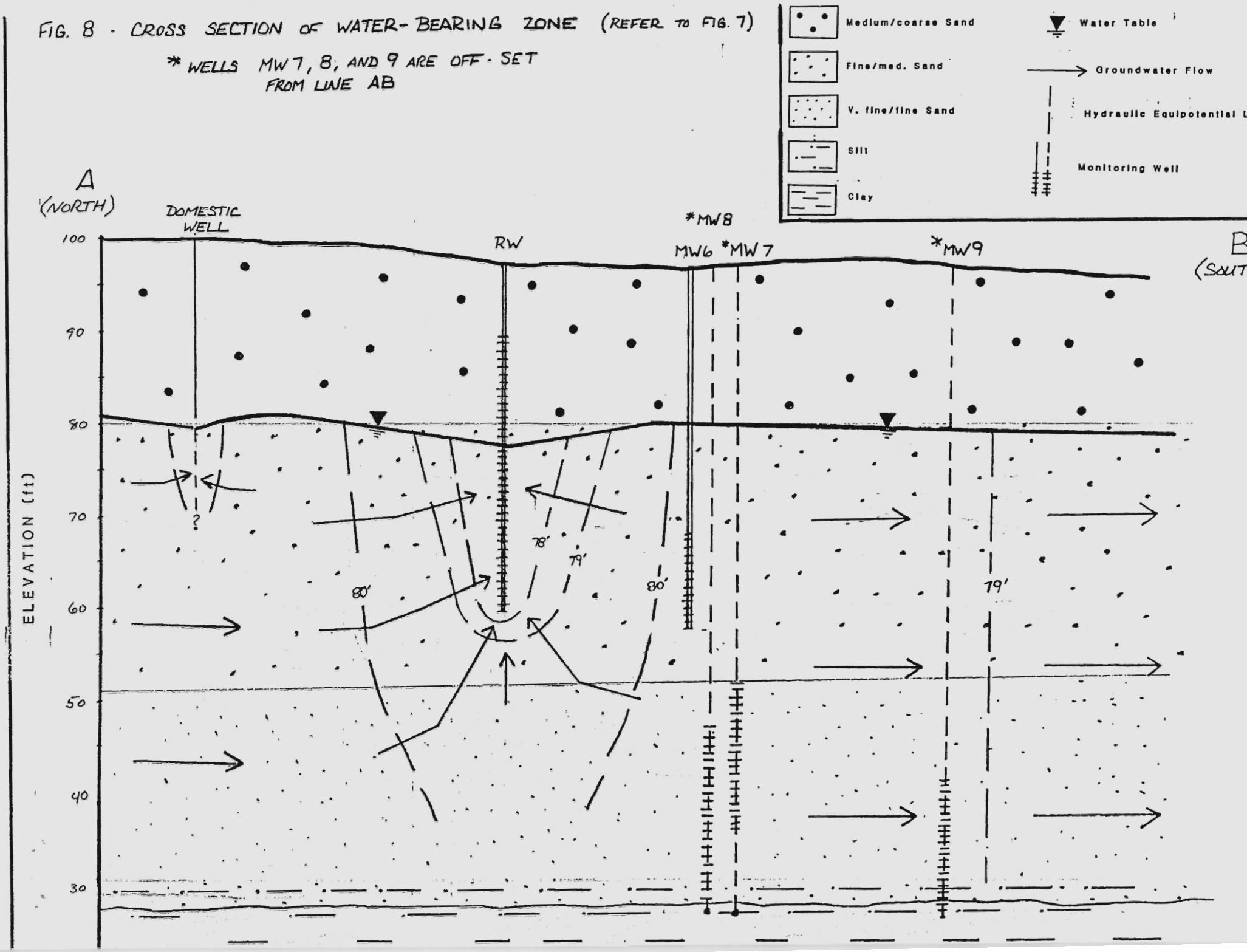
POTENTIAL YIELD OF WATER TO WELLS IN UNCONSOLIDATED AQUIFERS

UNCONFINED AQUIFERS, 10 to 100 GALLONS PER MINUTE--Sand and gravel with saturated zone generally less than 10 ft thick, or thicker but with less permeable silty sand and gravel. Yields in areas adjacent to streams may exceed 100 gal/min through pumping-induced infiltration, but these areas are too small to show at this scale.

UNCONFINED AQUIFERS, MORE THAN 100 GALLONS PER MINUTE--Sand and gravel of high transmissivity and with saturated thickness greater than 10 ft. Many such areas are associated with surface-water sources that can provide additional water pumping-induced recharge.

FIG. 8 - CROSS SECTION OF WATER-BEARING ZONE (REFER TO FIG. 7)

* WELLS MW 7, 8, AND 9 ARE OFF-SET FROM LINE AB



APPENDICES

APPENDIX A

Subsurface Test Boring

and

Monitoring Well Construction Logs

ENVIRONMENTAL OIL, INC. SYRACUSE, NY	SUBSURFACE LOG	Well No.: MW-6 Sheet 1 of 2
Project Location: South Glens Falls, NY Client: NYS/DEC	SAMPLER Type: 2' Split Spoon Hammer: 140 lbs. Fall: 30 inches	Groundwater Depth 15' Date 1/09/89 Project No.: 8030
Drilling Co.: Environmental Oil, Inc. Project Coordinator: Bruce Bell Geologist: Dan Ours	Driller: J. Burgan Ground Elevation: Date Started: 1/09/89 Ended: 1/10/89	

Depth	Sample No.	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descrip.	Equipment Installed	Observations/Remarks
0									Grain size becomes finer with increasing depth.
5	1	5' - 7'	6,8,12,19		20	Brown medium/coarse SAND, trace organics, moist, firm.			Auger refusal at 32'.
10	2	10' - 12'	6,12,12,19		24	Brown medium/coarse SAND, moist, firm.			
15	3	15' - 17'	3,6,6,10		12	Brown fine/medium SAND, trace silt, wet, loose.	15' ▽		
20	4	20' - 22'	17,21,25,35		46	Brown fine/medium SAND, trace silt, wet, firm.			
25	5	25' - 27'	1,5,10,15		15	Brown fine/medium SAND, little silt, wet, firm.			
30	6	30' - 32'	3,8,12,12		20	Brown fine/medium SAND, little silt, wet, firm.			

Additional Remarks:

KEY: Auger Spoils, Bentonite, Cement, Sand

2013.086

ENVIRONMENTAL OIL, INC. SYRACUSE, NY	SUBSURFACE LOG	Well No.: MW-6 Sheet 2 of 2
Project Location: South Glens Falls, NY Client: NYS/DEC	SAMPLER Type: 2' Split Spoon Hammer: 140 lbs. Fall: 30 inches	Groundwater Depth Date 1/11/89 Project No.: 8030
Drilling Co.: Hansen Well Drilling and Pump Company Project Coordinator: Bruce Bell Geologist: Dan Ours	Driller: Roy Mason Ground Elevation: Date Started: 1/11/89 Ended: 1/12/89	

Depth	Sample No.	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descrip.	Equipment Installed	Observations/Remarks
35	7	35' - 37'				Brown fine/medium SAND, little silt, trace clay, wet.			Grey clay at 40'.
40						Brown fine/medium SAND, trace silt, trace clay, wet.			
45						Brownish grey fine SAND, some silt, trace clay, wet.			
50						Brown fine/medium SAND, little silt, wet.			
55						Brown fine SAND, some silt, wet.			
						Boring terminated at 57'.			
60									

Additional Remarks:

KEY: Auger Spoils, Bentonite, Cement, Sand

2013.086

CLOUGH, HARBOUR
& ASSOCIATES
ENGINEERS & PLANNERS

PARTNERS
RONALD J. CLOUGH, P.E.
WILLIAM A. HARBOUR, P.E.
RICHARD B. BOVEE, P.E.

SENIOR ASSOCIATES
THOMAS L. HESNOR, P.E.
JEFFREY R. HOLT, P.E., C.P.G.
RAYMOND J. RUMANOWSKI, P.E.
JAMES D. RYAN, P.E.

ASSOCIATES
LARRY V. FAIRCHILD, P.E.
WILLIAM S. LUCARELLI, P.L.S.

DIRECTOR OF PROJECT DEVELOPMENT
RAYMOND J. KINLEY, JR.

DEPARTMENT MANAGERS
DAVID O. KELLY
JOHN M. KRUEGLER, P.E.
KEITH F. LASHWAY, P.E.
JOHN R. REINEMANN

February 13, 1989

Mr. Bruce Bell
District Manager
Environmental Oil, Inc.
105 Old Mill Road
Schenectady, New York 12306

Re: NYSDEC South Glens Falls, Test Boring and Monitoring Well Logs. CHA Project No. 1452-07.

Dear Bruce:

Enclosed are the test boring and monitoring well construction logs for the NYSDEC - South Glens Falls Project. I hope you find them satisfactory.

I look forward to working with you in the future and if you have questions, please call anytime. I hope the project goes well for you.

Very truly yours,

CLOUGH, HARBOUR & ASSOCIATES
ENGINEERS & PLANNERS

Thomas A. Butler

Thomas A. Butler
Hydrogeologist

TAB:cms
enc.
666-11

24 AVIATION ROAD • BOX 5269 • ALBANY, NEW YORK 12205 • 518-458-7795
FAX NUMBER 518-458-1735

CHA CLOUGH, HARBOUR & ASSOCIATES ENGINEERS & PLANNERS

TEST BORING LOG

HOLE NO. MW-6

PROJECT: DEC - South Glens Falls
CLIENT: Environmental Oil Inc.
CONTRACTOR: Hanson Well Drilling & Pump Co. Inc.

PROJECT NO. 1452-07
SHEET NO. 1 OF 1
LOCATION
ELEVATION
INCLINATION Vertical
START DATE 1/17/89
FINISH DATE 1/18/89
DRILLER Roy Mason
INSPECTOR T. Butler/D. Ours

MEASUREMENT: DATE	TIME	DEPTH TO WATER	DEPTH OF HOLE	DEPTH OF CASING
/18	9:00	15.15	40'	30'
/18	2:20	15.5'	40'	40'

EQUIPMENT:	CASING	SAMPLER	CORE
TYPE	8"ID		
SIZE I.D.			
HAMMER WT.			
HAMMER FALL			
Bit Size	7 7/8"		

DEPTH IN FEET	STRATA CHANGE AND DESCRIPTION	SAMPLE NO.	SPT BLOWS PER 6"	RECOVERY	TESTS AND EQUIPMENT	FIELD DESCRIPTION AND REMARKS
5						NO SAMPLES TAKEN. END OF BORING AT 43.0'.
10						
15						
20						

BLOWS/FT.	DENSITY
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM COMPACT
30-50	COMPACT

BLOWS/FT.	CONSISTENCY
0-2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF

SAMPLE IDENTIFICATION
S — SPLIT SPOON
T — THIN WALL TUBE
U — UNDISTURBED PISTON
O — OPEN END ROD

CHECKED BY: TAB
DATE: 2-9-89

CHA CLOUGH, HARBOUR & ASSOCIATES ENGINEERS & PLANNERS

GROUNDWATER MONITORING WELL REPORT

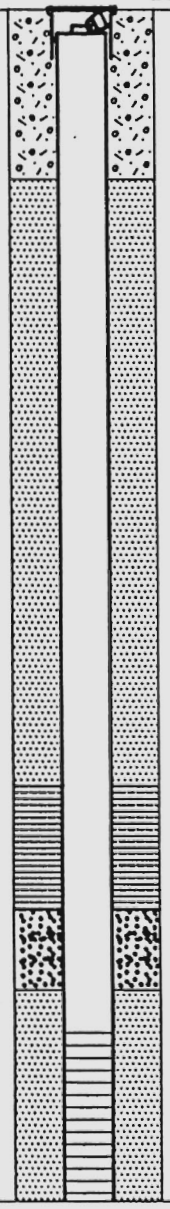
PROJECT: NYSDEC - S. GLENS FALLS
CLIENT: ENVIRONMENTAL OIL INC.
CONTRACTOR: HANSON WELL DRILLING AND PUMP CO. INC.
DRILLER: ROY MASON GEOLOGIST: T. BUTLER
TOTAL DEPTH - 43'

FILE NO.: 1452-07
SHEET NO.: 1 OF 2
WELL NO.: MW-6 BORING NO.: MW-6
LOCATION: SEE SITE MAP
DATE: 1 / 18 / 89

DEPTH TO WATER ELEVATION OF GROUNDWATER AT COMPLETION: 15.5'
HEIGHT OF RISER PIPE ABOVE GROUND LEVEL: --- ELEV. OF DATUM POINT:* ---
DRILLING METHOD: 7 7/8" AIR ROTARY/REVERT MUD DRILLING WITH 8" I.D. CASING
TYPE OF WELL PROTECTION: FLUSH MOUNTED PROTECTIVE STEEL CAP I.D. OF CASING: N/A
TYPE OF RISER PIPE: SCH. 40 PVC TYPE OF SCREEN: SCH. 40 PVC I.D. OF RISER PIPE: 4"
SCREEN LENGTH: 10' SIZE OF SCREEN SLOT: .010' I.D. OF SCREEN: 4"
FILTER PACK: U.S. SILICA 3Q-ROK SEAL: BENTONITE PELLETS BACKFILL: NATIVE SAND/FILTER PACK

*MEASURED FROM TOP OF PVC

WELL CONSTRUCTION SCHEMATIC



GRADE

DEPTH

5
10
15
20
25
30
35

SOIL DESCRIPTION

SEE TEST BORING LOG FROM ENVIRONMENTAL OIL INC. FOR DETAILS

LEGEND:

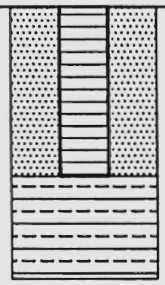
WELL SCREEN | FILTER PACK | BENTONITE SEAL | NATIVE BACKFILL | CEMENT

CHA CLOUGH, HARBOUR & ASSOCIATES
ENGINEERS & PLANNERS

GROUNDWATER MONITORING WELL REPORT

PROJECT: NYSDEC S. GLENS FALLS
CLIENT: ENVIRONMENTAL OIL INC.

FILE NO.: 1452-07
SHEET NO.: 2 OF 2
WELL NO.: MW-6 BORING NO.: MW-6



LEGEND:

WELL SCREEN | FILTER PACK | BENTONITE SEAL | NATIVE BACKFILL | CEMENT

CHA CLOUGH, HARBOUR & ASSOCIATES ENGINEERS & PLANNERS

GROUNDWATER MONITORING WELL REPORT

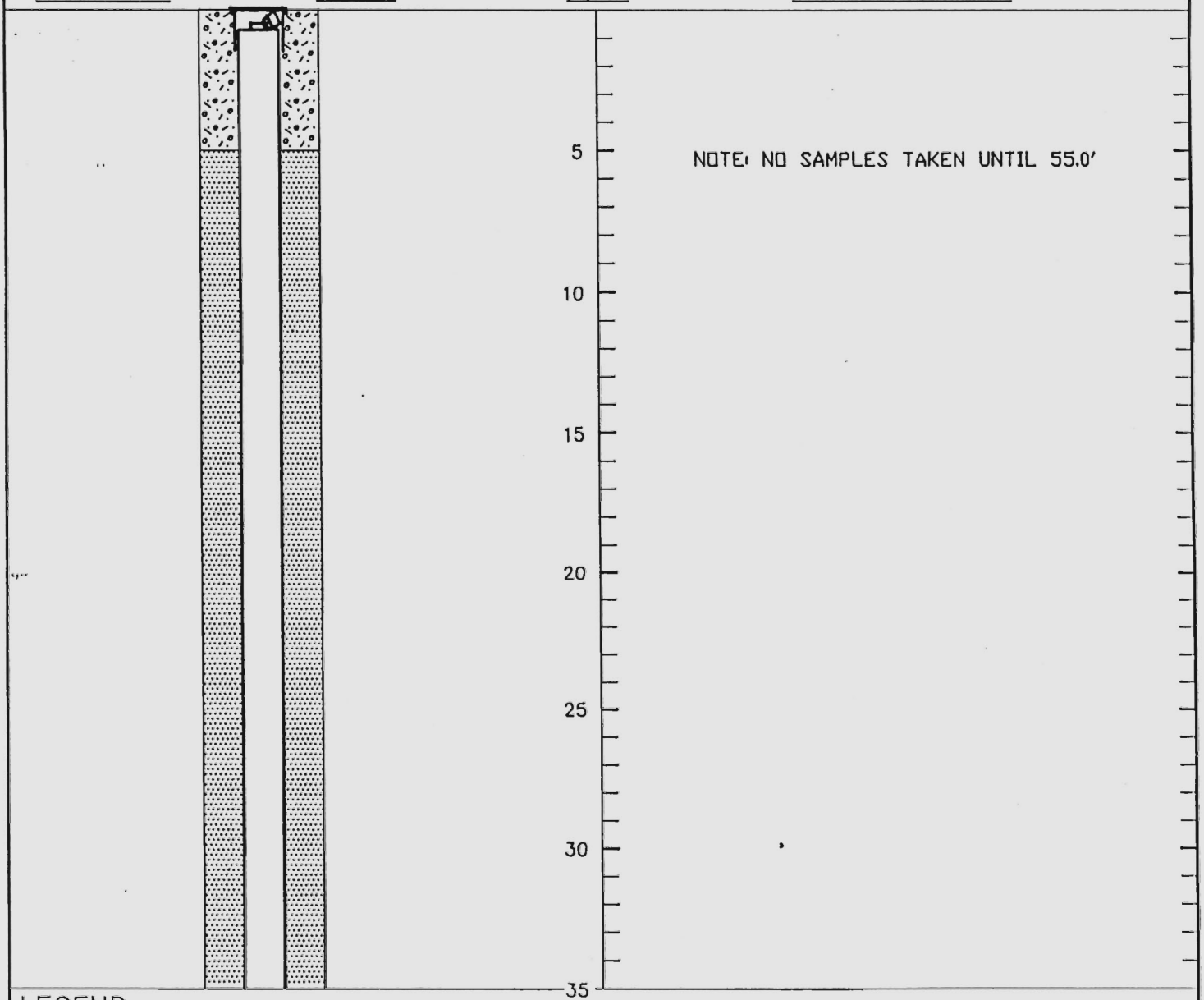
PROJECT: NYSDEC - S. GLENS FALLS
CLIENT: ENVIRONMENTAL OIL INC.
CONTRACTOR: HANSON WELL DRILLING AND PUMP CO. INC.
DRILLER: ROY MASON GEOLOGIST: J. COBB/T. BUTLER
TOTAL DEPTH - 73'

FILE NO.: 1452-07
SHEET NO.: 1 OF 2
WELL NO.: MW-7 BORING NO.: MW-7
LOCATION: SEE SITE MAP
DATE: 1 / 20 / 89

DEPTH TO WATER ELEVATION OF GROUNDWATER AT COMPLETION: ---
HEIGHT OF RISER PIPE ABOVE GROUND LEVEL --- ELEV. OF DATUM POINT:* ---
DRILLING METHOD: 7 7/8" AIR ROTARY/REVERT MUD DRILLING WITH 8" I.D. CASING
TYPE OF WELL PROTECTION: FLUSH MOUNTED PROTECTIVE STEEL CAP I.D. OF CASING: N/A
TYPE OF RISER PIPE: SCH. 40 PVC TYPE OF SCREEN: SCH. 40 PVC I.D. OF RISER PIPE: 4"
SCREEN LENGTH: 15' SIZE OF SCREEN SLOT: .010' I.D. OF SCREEN: 4"
FILTER PACK: U.S. SILICA 3Q-ROK SEAL: BENTONITE PELLETS BACKFILL: NATIVE SAND/FILTER PACK

* MEASURED FROM TOP OF PVC

WELL CONSTRUCTION SCHEMATIC | GRADE | DEPTH | SOIL DESCRIPTION



LEGEND:

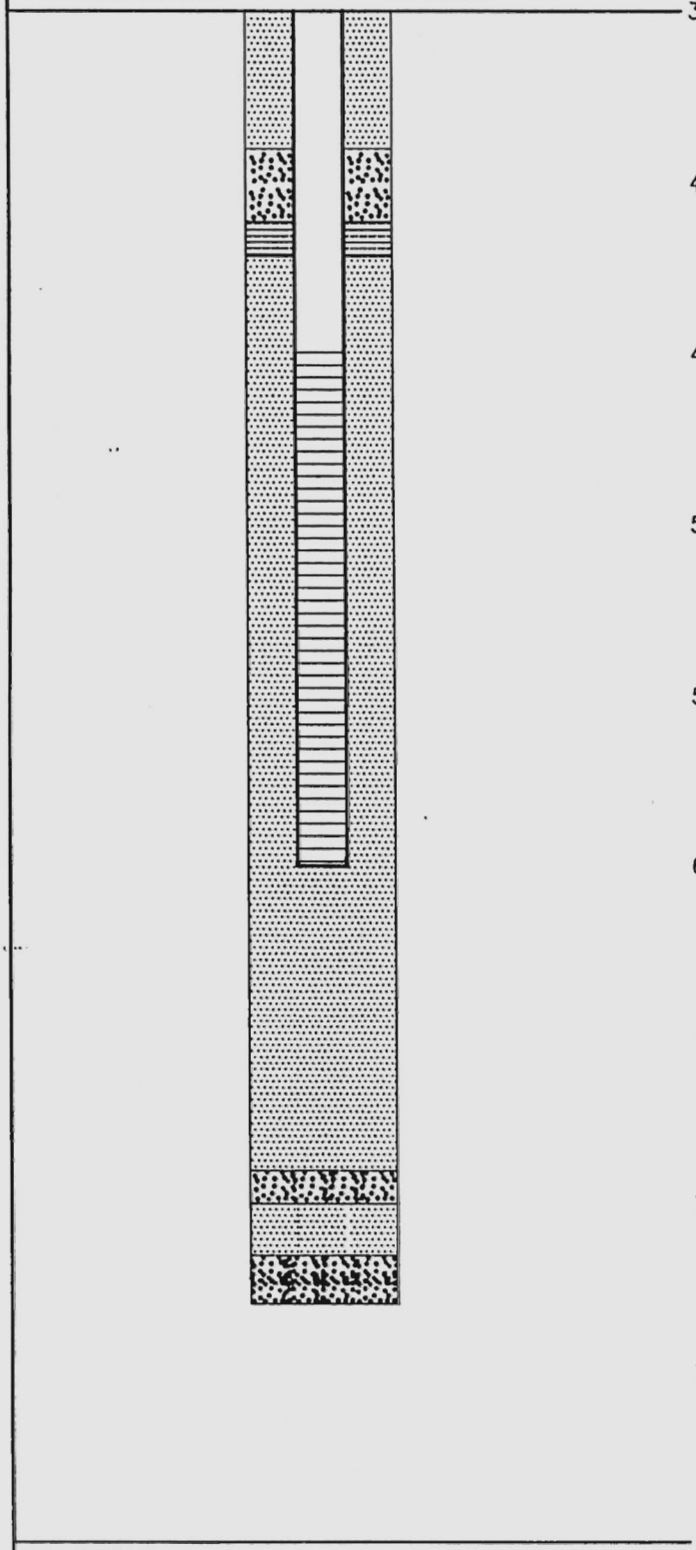
WELL SCREEN | FILTER PACK | BENTONITE SEAL | NATIVE BACKFILL | CEMENT

CHA CLOUGH, HARBOUR & ASSOCIATES
ENGINEERS & PLANNERS

GROUNDWATER MONITORING WELL REPORT

PROJECT: NYSDEC S. GLENS FALLS
CLIENT: ENVIRONMENTAL OIL INC.

FILE NO.: 1452-07
SHEET NO.: 2 OF 2
WELL NO.: MW-7 BORING NO.: MW-7



LEGEND:

WELL SCREEN | FILTER PACK | BENTONITE SEAL | NATIVE BACKFILL | CEMENT

CHA CLOUGH, HARBOUR & ASSOCIATES
ENGINEERS & PLANNERS

GROUNDWATER MONITORING WELL REPORT

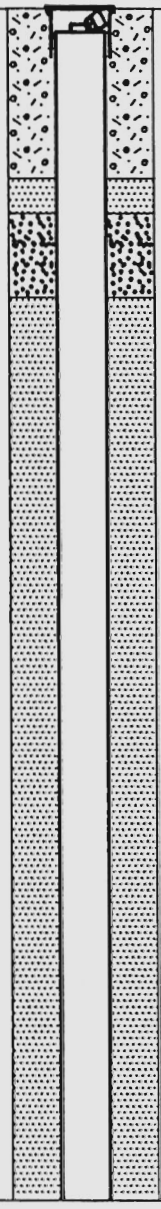
PROJECT: NYSDEC - S. GLENS FALLS
CLIENT: ENVIRONMENTAL OIL INC.
CONTRACTOR: HANSON WELL DRILLING AND PUMP CO. INC.
DRILLER: ROY MASON GEOLOGIST: J. COBB
TOTAL DEPTH - 70'

FILE NO.: 1452-07
SHEET NO.: 1 OF 2
WELL NO.: MW-8 BORING NO.: MW-8
LOCATION: SEE SITE MAP
DATE: 1/ 25 /89

DEPTH TO WATER ELEVATION OF GROUNDWATER AT COMPLETION: ---
HEIGHT OF RISER PIPE ABOVE GROUND LEVEL --- ELEV. OF DATUM POINT:* ---
DRILLING METHOD: 7 7/8" AIR ROTARY/REVERT MUD DRILLING WITH 8" I.D. CASING
TYPE OF WELL PROTECTION: FLUSH MOUNTED PROTECTIVE STEEL CAP I.D. OF CASING: N/A
TYPE OF RISER PIPE: SCH. 40 PVC TYPE OF SCREEN: SCH. 40 PVC I.D. OF RISER PIPE: 4"
SCREEN LENGTH: 20' SIZE OF SCREEN SLOT: .010' I.D. OF SCREEN: 4"
FILTER PACK: U.S. SILICA 3Q-ROK SEAL: BENTONITE PELLETS BACKFILL: NATIVE SAND/FILTER PACK

* MEASURED FROM TOP OF PVC

WELL CONSTRUCTION SCHEMATIC



GRADE	DEPTH	SOIL DESCRIPTION
	5	VARIES FROM MOSTLY MEDIUM SAND, TRACE COARSE TO FINE GRAVEL TO COARSE TO MEDIUM SAND, TRACE COARSE TO FINE GRAVEL, TANNISH-BROWN, SOME FINE BEDDING LAMINATIONS PRESENT.
	10	
	15	
	20	
	25	
	30	
	35	

LEGEND:

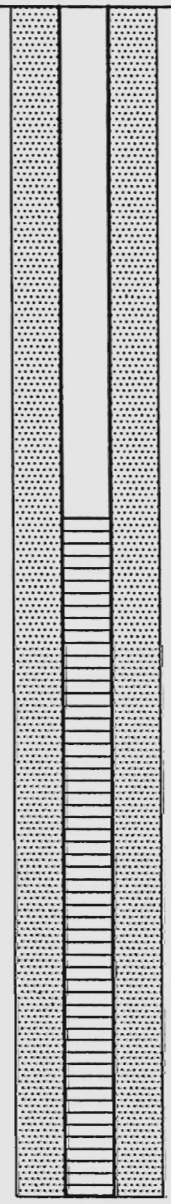
WELL SCREEN | FILTER PACK | BENTONITE SEAL | NATIVE BACKFILL | AIR-ENTRAINED CEMENT

CHA CLOUGH, HARBOUR & ASSOCIATES
ENGINEERS & PLANNERS

GROUNDWATER MONITORING WELL REPORT

PROJECT: NYSDEC S. GLENS FALLS
CLIENT: ENVIRONMENTAL OIL INC.

FILE NO.: 1452-07
SHEET NO.: 2 OF 2
WELL NO.: MW-8 BORING NO.: MW-8



DEPTH	SOIL DESCRIPTION
35	
	MEDIUM SAND, VARIES FROM TRACE COARSE TO FINE GRAVEL, TANNISH-BROWN, TO FINE SAND, SOME SILT, TO TRACE SILT, GRAYISH-BROWN, WET. (SP)
40	
45	
	50.0'
50	MEDIUM TO FINE SAND, GRAYISH-BROWN, WET. (SW)
55	
	60.0'
60	FINE SAND, TRACE SILT, LIGHT TO DARK BROWN, WET. (SP)
65	
	66.9'
	SILTY FINE SAND, TRACE CLAY, BROWN, WET. (SM)
70	
	71.5
	SILT, SOME CLAY, BROWN, WET. (ML)
	END OF TEST BORING AT 72.0'
75	
80	

LEGEND:

WELL SCREEN | FILTER PACK | BENTONITE SEAL | NATIVE BACKFILL | CEMENT

CHA CLOUGH, HARBOUR & ASSOCIATES
ENGINEERS & PLANNERS

GROUNDWATER MONITORING WELL REPORT

PROJECT: NYSDEC - S. GLENS FALLS
CLIENT: ENVIRONMENTAL OIL INC.
CONTRACTOR: HANSON WELL DRILLING AND PUMP CO. INC.
DRILLER: ROY MASON GEOLOGIST: J. COBB

TOTAL DEPTH - 70'

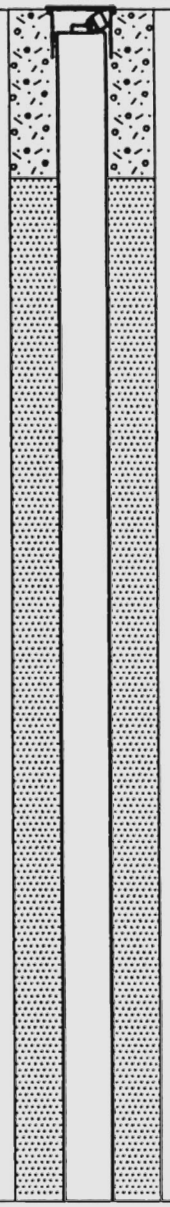
FILE NO.: 1452-07
SHEET NO.: 1 OF 2
WELL NO.: MW-9 BORING NO.: MW-9
LOCATION: SEE SITE MAP

DATE: 1 / 27 / 89

DEPTH TO WATER ELEVATION OF GROUNDWATER AT COMPLETION: ---
HEIGHT OF RISER PIPE ABOVE GROUND LEVEL --- ELEV. OF DATUM POINT:* ---
DRILLING METHOD: 7 7/8" AIR ROTARY/REVERT MUD DRILLING WITH 8" I.D. CASING
TYPE OF WELL PROTECTION: FLUSH MOUNTED PROTECTIVE STEEL CAP I.D. OF CASING: N/A
TYPE OF RISER PIPE: SCH. 40 PVC TYPE OF SCREEN: SCH. 40 PVC I.D. OF RISER PIPE: 4"
SCREEN LENGTH: 15' SIZE OF SCREEN SLOT: .010' I.D. OF SCREEN: 4"
FILTER PACK: U.S. SILICA 3Q-ROK SEAL: BENTONITE PELLETS BACKFILL: NATIVE SAND/FILTER PACK

* MEASURED FROM TOP OF PVC

WELL CONSTRUCTION SCHEMATIC | GRADE | DEPTH | SOIL DESCRIPTION



NOTE: NO SPLIT SPOON SAMPLES WERE TAKEN FROM THIS BORING

5
10
15
20
25
30
35

LEGEND:

WELL SCREEN | FILTER PACK | BENTONITE SEAL | NATIVE BACKFILL | AIR-ENTRAINED CEMENT

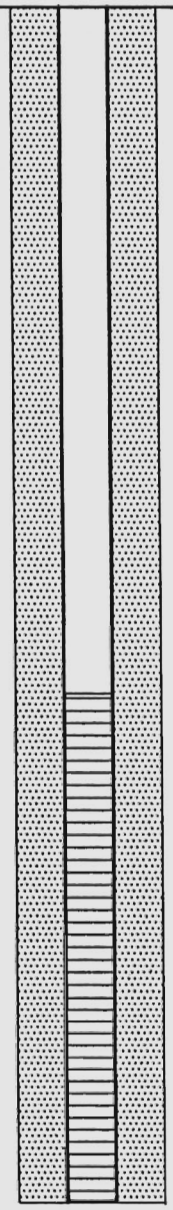
CHA CLOUGH, HARBOUR & ASSOCIATES
ENGINEERS & PLANNERS

GROUNDWATER MONITORING WELL REPORT

PROJECT: NYSDEC S. GLENS FALLS
CLIENT: ENVIRONMENTAL OIL INC.

FILE NO.: 1452-07
SHEET NO.: 2 OF 2
WELL NO.: MW-9 BORING NO.: MW-9

WELL CONSTRUCTION SCHEMATIC



GRADE

DEPTH

SOIL DESCRIPTION

35

NOTE: NO BENTONITE SEAL WAS EMPLACED IN THIS WELL DUE TO ANNULUS SIZE

40

45

50

55

60

65

END OF TEST BORING AT 70.0'

70

75

80

LEGEND:

WELL SCREEN
FILTER PACK
BENTONITE SEAL
NATIVE BACKFILL
CEMENT

CHA CLOUGH, HARBOUR & ASSOCIATES ENGINEERS & PLANNERS

TEST BORING LOG

HOLE NO. MW-7

PROJECT: DEC - South Glens Falls
CLIENT: Environmental Oil
CONTRACTOR: Hanson Well Drilling & Pump Co. Inc

PROJECT NO. 1452-07
SHEET NO. 1 OF 1
LOCATION
ELEVATION
INCLINATION Vertical
START DATE 1/18/89
FINISH DATE 1/20/89
DRILLER Roy Mason
INSPECTOR Tom Butler

MEASUREMENT: DATE	TIME	DEPTH TO WATER	DEPTH OF HOLE	DEPTH OF CASING	EQUIPMENT:	CASING	SAMPLER	CORE
					TYPE	HW	SS	
					SIZE I.D.	8"	1 3/8"	
					HAMMER WT.			
					HAMMER FALL			
					Bit Size	7 7/8"		

DEPTH IN FEET	STRATA CHANGE AND DESCRIPTION	SAMPLE NO.	SPT BLOWS PER 6"	RECOVERY	TESTS AND EQUIPMENT	FIELD DESCRIPTION AND REMARKS
55		S-1	-	1.5'		F-VF SAND, SOME SILT, GRAYISH-BROWN (SP) WET.
	SP					
60		S-2	-	NO RECOVERY		
		S-3	-	NO RECOVERY		
65						
		S-4	-	1.0'		SILTY VF SAND, GRAY, WET. (SM)
	SM					NOTE: 8" CASING DRIVEN TO 80' CLAY ENCOUNTERED IN CUTTINGS AT 69.0 - 70.'
70						
		S-5	-	.7'		CLAY, TRACE OF F-SAND, DK. GRAY, WET. (CL)
	CL					
75						

BLOWS/FT.	DENSITY
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM COMPACT
30-50	COMPACT
50+	VERY COMPACT

BLOWS/FT.	CONSISTENCY
0-2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF

SAMPLE IDENTIFICATION
S – SPLIT SPOON
T – THIN WALL TUBE
U – UNDISTURBED PISTON
O – OPEN END ROD
W – WASH SAMPLE

CHECKED BY: TMB
DATE: 2-9-89

CLOUGH, HARBOUR & ASSOCIATES ENGINEERS & PLANNERS

TEST BORING LOG

HOLE NO. MW-8

PROJECT: DEC - South Glens Falls
CLIENT: Environmental Oil Inc.
CONTRACTOR: Hanson Well Drilling & Pump Co. Inc

PROJECT NO. 1452-07
SHEET NO. 1 OF 4
LOCATION
ELEVATION
INCLINATION Vertical
START DATE 1/23/89
FINISH DATE 1/24/89
DRILLER Roy Mason
INSPECTOR J. Cobb

MEASUREMENT: DATE	TIME	DEPTH TO WATER	DEPTH OF HOLE	DEPTH OF CASING	EQUIPMENT:	CASING	SAMPLER	CORE
					TYPE	STEEL	S	
					SIZE I.D.	8"	1 3/8"	
					HAMMER WT.			
					HAMMER FALL			
					Bit	7 7/8"		

DEPTH IN FEET	STRATA CHANGE AND DESCRIPTION	SAMPLE NO.	SPT BLOWS PER 6"	RECOVERY	TESTS AND EQUIPMENT	FIELD DESCRIPTION AND REMARKS
5						
10						
15						
20	SW	S-1		1.0'		C-M SAND, TRACE F. GRAVEL, TANNISH BROWN DRY. (SW) NOTE; COULD ONLY PUSH SPOON FROM 15.0 - 18.0, REFUSAL AT 16.0'.

BLOWS/FT.	DENSITY
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM COMPACT

BLOWS/FT.	CONSISTENCY
0-2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF

SAMPLE IDENTIFICATION
S — SPLIT SPOON
T — THIN WALL TUBE
U — UNDISTURBED PISTON

CHECKED BY: TAB
DATE: 2-9-89

CLOUGH, HARBOUR & ASSOCIATES
ENGINEERS & PLANNERS

TEST BORING LOG

HOLE NO. MW-8

PROJECT: Environmental Oil - South Glens Falls
CLIENT: Environmental Oil
CONTRACTOR: Hanson Well Drilling & Pump Co. Inc

PROJECT NO. 1452-07
SHEET NO. 2 OF 4
ELEVATION

DEPTH IN FEET	STRATA CHANGE AND DESCRIPTION	SAMPLE NO.	SPT BLOWS PER 6"	RECOVERY	TESTS AND EQUIPMENT	FIELD DESCRIPTION AND REMARKS
20		S-2	-	1.0'		M-SAND, TRACE F-GRAVEL, TANNISH BROWN, WET. FINE BEDDING LAMINATIONS PRESENT (SP)
						NOTE: COULD ONLY PUSH SPOON FROM 20.0' - 21.0', REFUSAL AT 21.0.
25		S-3	-	1.1'		M-SAND, TANNISH BROWN, WET FINE BEDDING LAMINATIONS. NOTE: SS REFUSAL AT 26.5'. (SP)
30		S-4	-	1.5'		M-SAND, TRACE C-F GRAVEL, TANNISH-BROWN, WET. SS REFUSAL AT 31.5'. (SP)
	SP					
35						NOTE: DRILLED BEYOND 35.0 - 37.0 SAMPLE.
						NOTE: PROBABLE CHANGE AT 38.0 TO SILTY SAND.
40		S-5	-	1.2'		F-SAND, SOME SILT, GRAYISH BROWN, WET. SS REFUSAL AT 41.5'. (SP)
45						

CLOUGH, HARBOUR & ASSOCIATES
ENGINEERS & PLANNERS

TEST BORING LOG

HOLE NO. MW-8

PROJECT: Environmental Oil S. Glens Falls
CLIENT: Environmental Oil
CONTRACTOR: Hanson Well Drilling & Pump Co.

PROJECT NO. 1452-07
SHEET NO. 3 OF 4
ELEVATION

DEPTH IN FEET	STRATA CHANGE AND DESCRIPTION	SAMPLE NO.	SPT BLOWS PER 6"	RECOVERY	TESTS AND EQUIPMENT	FIELD DESCRIPTION AND REMARKS
45	SP	S-6	-	1.0'		F-SAND, TRACE SILT, GRAYISH-BROWN, WET. SS. REFUSAL AT 47.0' (SP)
	50.0					
50		S-7	-	1.0'		M-F SAND, GRAYISH BROWN, WET. SS REFUSAL AT 51.6'. (SW)
55	SW	S-8	-	1.0'		SAME. SS REFUSAL AT 56.5'. (SW)
	60.0					CASING TO 70.0'.
60		S-9	-	1.1'	HNu 3 ppm	F-SAND, TRACE SILT, L-D BROWN, WET. (SP) SS REFUSAL @ 61.1'.
	SP					
65		S-10	-	0.6'	HNu 3 ppm	SAMPLE TO 67.0' SAME - LAST 2" GRADES TO SILTY F-SAND, TRACE CLAY, BROWN, WET. (SM)
	66.9					CASING TO 75.0' WASH YIELDS SANDY CLAY @ 70.0'.
	SM					
70						

CLOUGH, HARBOUR & ASSOCIATES
ENGINEERS & PLANNERS

TEST BORING LOG

HOLE NO. MW-8

PROJECT: Environmental Oil, S. Glens Falls
CLIENT: Environmental Oil
CONTRACTOR: Hanson Well Drilling & Pump Co. Inc.

PROJECT NO. 1452-07
SHEET NO. 4 OF 4
ELEVATION

DEPTH IN FEET	STRATA CHANGE AND DESCRIPTION	SAMPLE NO.	SPT BLOWS PER 6"	RECOVERY	TESTS AND EQUIPMENT	FIELD DESCRIPTION AND REMARKS
70	SM 71.5' ML	S-11	-	2.0'	HNu 2 ppm	SAME - @ 71.5' CHANGE TO SILT, SOME CLAY, BROWN, WET. (ML)
						BOTTOM OF BORING 72.0' CASING TO 75.0'.

CHA CLOUGH, HARBOUR & ASSOCIATES ENGINEERS & PLANNERS

TEST BORING LOG

HOLE NO. MW-8A

PROJECT: Environmental Oil, S. Flens Falls
CLIENT: Environmental Oil
CONTRACTOR: Hanson Well Drilling & Pump Co. Inc

PROJECT NO. 1452-07
SHEET NO. 1 OF 3
LOCATION
ELEVATION
INCLINATION Vertical
START DATE 1/25/89
FINISH DATE 1/25/89
DRILLER Roy Mason
INSPECTOR J. Cobb

MEASUREMENT: DATE	TIME	DEPTH TO WATER	DEPTH OF HOLE	DEPTH OF CASING	EQUIPMENT:	CASING	SAMPLER	CORE
					TYPE			
					SIZE I.D.			
					HAMMER WT.			
					HAMMER FALL			
					Bit	6"		

DEPTH IN FEET	STRATA CHANGE AND DESCRIPTION	SAMPLE NO.	SPT BLOWS PER 6"	RECOVERY	TESTS AND EQUIPMENT	FIELD DESCRIPTION AND REMARKS
5						CASING TO 10.0'.
10						6" ROLLER BIT WITH MUD FROM 10.0' - 20.0'. NO SAMPLING.
15						
20						

BLOWS/FT.	DENSITY
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM COMPACT
30-50	COMPACT

BLOWS/FT.	CONSISTENCY
0-2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF

SAMPLE IDENTIFICATION
S — SPLIT SPOON
T — THIN WALL TUBE
U — UNDISTURBED PISTON
O — OPEN END ROD

CHECKED BY:
DATE:

CLOUGH, HARBOUR & ASSOCIATES
ENGINEERS & PLANNERS

TEST BORING LOG

HOLE NO. MW-8A

PROJECT: Environmental Oil, S. Glens Falls
CLIENT: Environmental Oil
CONTRACTOR: Hanson Well Drilling & Pump Co. Inc

PROJECT NO. 1452-07
SHEET NO. 2 OF 3
ELEVATION

DEPTH IN FEET	STRATA CHANGE AND DESCRIPTION	SAMPLE NO.	SPT BLOWS PER 6"	RECOVERY	TESTS AND EQUIPMENT	FIELD DESCRIPTION AND REMARKS
20						
25						
30						6" ROLLER BIT WITH MUD 20.0' - 45.0' NO SAMPLING.
35						
40						

CLOUGH, HARBOUR & ASSOCIATES
ENGINEERS & PLANNERS

TEST BORING LOG

HOLE NO. MW-8A

PROJECT: Environmental Oil, S. Glens Falls
CLIENT: Environmental Oil
CONTRACTOR: Hanson Well Drilling & Pump Co. Inc

PROJECT NO. 1452-07
SHEET NO. 3 OF 3
ELEVATION

DEPTH IN FEET	STRATA CHANGE AND DESCRIPTION	SAMPLE NO.	SPT BLOWS PER 6"	RECOVERY	TESTS AND EQUIPMENT	FIELD DESCRIPTION AND REMARKS
45						
50						
55						6" ROLLER BIT WITH MUD FROM 45.0 - 70.0'. NO SAMPLING.
60						
65						
70						BOTTOM OF BORING 70.0'.

CLOUGH, HARBOUR & ASSOCIATES
ENGINEERS & PLANNERS

TEST BORING LOG

HOLE NO. MW-9

PROJECT: Environmental Oil, S. Glens Falls
CLIENT: Environmental Oil
CONTRACTOR: Hanson Well Drilling & Pump Co. Inc

PROJECT NO. 1452-07
SHEET NO. 1 OF 3
LOCATION
ELEVATION
INCLINATION Vertical
START DATE 1/27/89
FINISH DATE 1/27/89
DRILLER Roy Mason
INSPECTOR J. Cobb

MEASUREMENT: DATE	TIME	DEPTH TO WATER	DEPTH OF HOLE	DEPTH OF CASING	EQUIPMENT:	CASING	SAMPLER	CORE
27	10:15	18.4'	20.0'	10.0'	TYPE	STEEL		
					SIZE I.D.	8"		
					HAMMER WT.			
					HAMMER FALL			
					Bit	6"		

DEPTH IN FEET	STRATA CHANGE AND DESCRIPTION	SAMPLE NO.	SPT BLOWS PER 6"	RECOVERY	TESTS AND EQUIPMENT	FIELD DESCRIPTION AND REMARKS
5						CASING TO 10.0'.
10						6" ROLLER BIT WITH MUD FROM 10.0 - 20.0'
15						NO SAMPLING.
20	18.4					

BLOWS/FT.	DENSITY
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM COMPACT

BLOWS/FT.	CONSISTENCY
0-2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF

SAMPLE IDENTIFICATION
S — SPLIT SPOON
T — THIN WALL TUBE
U — UNDISTURBED FIXION

CHECKED BY: TAB
DATE: 2-9-89

CHA CLOUGH, HARBOUR & ASSOCIATES ENGINEERS & PLANNERS

TEST BORING LOG

HOLE NO. MW-9

PROJECT: Environmental Oil, S. Glens Falls
CLIENT: Environmental Oil
CONTRACTOR: Hanson Well Drilling & Pump Co. Inc

PROJECT NO. 1452-07
SHEET NO. 2 OF 3
ELEVATION

DEPTH IN FEET	STRATA CHANGE AND DESCRIPTION	SAMPLE NO.	SPT BLOWS PER 6"	RECOVERY	TESTS AND EQUIPMENT	FIELD DESCRIPTION AND REMARKS
20						
25						6" ROLLER BIT WITH MUD FROM 20.0'-45.0'. NO SAMPLING.
30						
35						
40						

CHA CLOUGH, HARBOUR & ASSOCIATES ENGINEERS & PLANNERS

TEST BORING LOG

HOLE NO. MW-9

PROJECT: Environmental Oil, S. Glens Falls
CLIENT: Environmental Oil
CONTRACTOR: Hanson Well Drilling & Pump Co. Inc.

PROJECT NO. 1452-07
SHEET NO. 3 OF 3
ELEVATION

DEPTH IN FEET	STRATA CHANGE AND DESCRIPTION	SAMPLE NO.	SPT BLOWS PER 6"	RECOVERY	TESTS AND EQUIPMENT	FIELD DESCRIPTION AND REMARKS
45						
50						
55						6" ROLLER BIT WITH MUD FROM 45.0' - 70.0'. NO SAMPLING.
60						
65						
						BOTTOM OF BORING 70.0'

APPENDIX B

Groundwater Analytical Data

NET NATIONAL ENVIRONMENTAL TESTING, INC.

NET Northeast, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Tel: (315) 446-8795
Fax: (315) 449-1611

Formerly CS Environmental Laboratory, Inc.

To: ENVIRONMENTAL OIL INC.
P.O. BOX 315
SYRACUSE, NY 13209

Date: Apr 06 1989

Attention: MARK HANSON

PURCHASE ORDER # :SPILL885323

SAMPLE #3323

LABORATORY ANALYSIS REPORT

SAMPLE SUMMARY

CLIENT	: ENVIRONMENTAL OIL INC.	DATE RECEIVED	: 03/20/89
JOB #	: 405.099.00	DATE COLLECTED	: 03/18/89
LOCATION	: MW-1	TIME COLLECTED	: NA
METHOD	:GRAB		

PARAMETER	RESULTS	UNITS
ACETONE	14.	ug/l
CHLOROMETHANE	<5.0	ug/l
BROMOMETHANE	<5.0	ug/l
VINYL CHLORIDE	<5.0	ug/l
CHLOROETHANE	<5.0	ug/l
METHYLENE CHLORIDE	<1.0	ug/l
CHLOROBENZENE	<1.0	ug/l
1,1-DICHLOROETHYLENE	<1.0	ug/l
1,1-DICHLOROETHANE	<1.0	ug/l
TRANS-1,2-DICHLOROETHYLENE	<1.0	ug/l
ETHYLBENZENE	<1.0	ug/l
CHLOROFORM	<1.0	ug/l
1,2-DICHLOROETHANE	<1.0	ug/l

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SAMPLE #3323

LABORATORY ANALYSIS REPORT

PARAMETER	RESULTS	UNITS
1,1,1-TRICHLOROETHANE	<1.0	ug/l
CARBON TETRACHLORIDE	<1.0	ug/l
BROMODICHLOROMETHANE	<1.0	ug/l
1,2-DICHLOROPROPANE	<1.0	ug/l
TRANS-1,3-DICHLOROPROPENE	<1.0	ug/l
TRICHLOROETHYLENE	<1.0	ug/l
DIBROMOCHLOROMETHANE	<1.0	ug/l
CIS-1,3-DICHLOROPROPENE	<1.0	ug/l
1,1,2-TRICHLOROETHANE	<1.0	ug/l
BENZENE	<1.0	ug/l
2-CHLOROETHYLVINYL ETHER	<1.0	ug/l
BROMOFORM	<1.0	ug/l
TETRACHLOROETHYLENE	<1.0	ug/l
1,1,2,2-TETRACHLOROETHANE	<1.0	ug/l
TOLUENE	7.0	ug/l
1,2 DICHLOROBENZENE	<1.0	ug/l
1,3 DICHLOROBENZENE	<1.0	ug/l
1,4 DICHLOROBENZENE	<1.0	ug/l
TRICHLOROFLUOROMETHANE	10.	ug/l

NOTE:
Methyl Ethyl Ketone detected at a concentration of 6ug/l.

NYSDOH - ELAP #10067 APPROVED BY: Paul Teufel Jr. DATE: 4/6/09

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SYRACUSE, NY 13209

Date: Apr 06 1989

Attention: MARK HANSON

PURCHASE ORDER # :SPILL885323

SAMPLE #3324

LABORATORY ANALYSIS REPORT

SAMPLE SUMMARY

CLIENT	: ENVIRONMENTAL OIL INC.	DATE RECEIVED	: 03/20/89
JOB #	: 405.099.00	DATE COLLECTED	: 03/18/89
LOCATION	: MW-2	TIME COLLECTED	: NA
METHOD	:GRAB		

PARAMETER	RESULTS	UNITS
ACETONE	15.	ug/l
CHLOROMETHANE	<5.0	ug/l
BROMOMETHANE	<5.0	ug/l
VINYL CHLORIDE	<5.0	ug/l
CHLOROETHANE	<5.0	ug/l
METHYLENE CHLORIDE	<1.0	ug/l
CHLOROBENZENE	<1.0	ug/l
1,1-DICHLOROETHYLENE	<1.0	ug/l
1,1-DICHLOROETHANE	<1.0	ug/l
TRANS-1,2-DICHLOROETHYLENE	<1.0	ug/l
ETHYLBENZENE	<1.0	ug/l
CHLOROFORM	<1.0	ug/l
1,2-DICHLOROETHANE	<1.0	ug/l

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SAMPLE #3324

LABORATORY ANALYSIS REPORT

PARAMETER	RESULTS	UNITS
1,1,1-TRICHLOROETHANE	<1.0	ug/l
CARBON TETRACHLORIDE	<1.0	ug/l
BROMODICHLOROMETHANE	<1.0	ug/l
1,2-DICHLOROPROPANE	<1.0	ug/l
TRANS-1,3-DICHLOROPROPENE	<1.0	ug/l
TRICHLOROETHYLENE	<1.0	ug/l
DIBROMOCHLOROMETHANE	<1.0	ug/l
CIS-1,3-DICHLOROPROPENE	<1.0	ug/l
1,1,2-TRICHLOROETHANE	<1.0	ug/l
BENZENE	<1.0	ug/l
2-CHLOROETHYLVINYL ETHER	<1.0	ug/l
BROMOFORM	<1.0	ug/l
TETRACHLOROETHYLENE	<1.0	ug/l
1,1,2,2-TETRACHLOROETHANE	<1.0	ug/l
TOLUENE	3.0	ug/l
1,2 DICHLOROBENZENE	<1.0	ug/l
1,3 DICHLOROBENZENE	<1.0	ug/l
1,4 DICHLOROBENZENE	<1.0	ug/l
TRICHLOROFLUOROMETHANE	<10.	ug/l

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To: ENVIRONMENTAL OIL INC.
P.O. BOX 315
SYRACUSE, NY 13209

Date: Apr 06 1989

Attention: MARK HANSON

PURCHASE ORDER # :SPILL885323

SAMPLE #3325

LABORATORY ANALYSIS REPORT

SAMPLE SUMMARY

CLIENT	: ENVIRONMENTAL OIL INC.	DATE RECEIVED :	03/20/89
JOB #	: 405.099.00	DATE COLLECTED :	03/18/89
LOCATION	: MW-3	TIME COLLECTED :	NA
METHOD	:GRAB		

PARAMETER	RESULTS	UNITS
ACETONE	<5.0	ug/l
CHLOROMETHANE	<5.0	ug/l
BROMOMETHANE	<5.0	ug/l
VINYL CHLORIDE	<5.0	ug/l
CHLOROETHANE	<5.0	ug/l
METHYLENE CHLORIDE	<1.0	ug/l
CHLOROBENZENE	<1.0	ug/l
1,1-DICHLOROETHYLENE	<1.0	ug/l
1,1-DICHLOROETHANE	<1.0	ug/l
TRANS-1,2-DICHLOROETHYLENE	<1.0	ug/l
ETHYLBENZENE	<1.0	ug/l
CHLOROFORM	<1.0	ug/l
1,2-DICHLOROETHANE	<1.0	ug/l

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SAMPLE #3325

LABORATORY ANALYSIS REPORT

PARAMETER	RESULTS	UNITS
1,1,1-TRICHLOROETHANE	<1.0	ug/l
CARBON TETRACHLORIDE	<1.0	ug/l
BROMODICHLOROMETHANE	<1.0	ug/l
1,2-DICHLOROPROPANE	<1.0	ug/l
TRANS-1,3-DICHLOROPROPENE	<1.0	ug/l
TRICHLOROETHYLENE	<1.0	ug/l
DIBROMOCHLOROMETHANE	<1.0	ug/l
CIS-1,3-DICHLOROPROPENE	<1.0	ug/l
1,1,2-TRICHLOROETHANE	<1.0	ug/l
BENZENE	<1.0	ug/l
2-CHLOROETHYLVINYL ETHER	<1.0	ug/l
BROMOFORM	<1.0	ug/l
TETRACHLOROETHYLENE	<1.0	ug/l
1,1,2,2-TETRACHLOROETHANE	<1.0	ug/l
TOLUENE	<1.0	ug/l
1,2 DICHLOROBENZENE	<1.0	ug/l
1,3 DICHLOROBENZENE	<1.0	ug/l
1,4 DICHLOROBENZENE	<1.0	ug/l
TRICHLOROFLUOROMETHANE	<10.	ug/l

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To: ENVIRONMENTAL OIL INC.
P.O. BOX 315
SYRACUSE, NY 13209

Date: Apr 06 1989

Attention: MARK HANSON

PURCHASE ORDER # :SPILL885323

SAMPLE #3326

LABORATORY ANALYSIS REPORT

SAMPLE SUMMARY

CLIENT	: ENVIRONMENTAL OIL INC.	DATE RECEIVED	: 03/20/89
JOB #	: 405.099.00	DATE COLLECTED	: 03/18/89
LOCATION	: MW-4	TIME COLLECTED	: NA
METHOD	:GRAB		

PARAMETER	RESULTS	UNITS
ACETONE.	12.	ug/l
CHLOROMETHANE	<5.0	ug/l
BROMOMETHANE	<5.0	ug/l
VINYL CHLORIDE	<5.0	ug/l
CHLOROETHANE	<5.0	ug/l
METHYLENE CHLORIDE	<1.0	ug/l
CHLOROBENZENE	<1.0	ug/l
1,1-DICHLOROETHYLENE	<1.0	ug/l
1,1-DICHLOROETHANE	<1.0	ug/l
TRANS-1,2-DICHLOROETHYLENE	<1.0	ug/l
ETHYLBENZENE	<1.0	ug/l
CHLOROFORM	<1.0	ug/l
1,2-DICHLOROETHANE	<1.0	ug/l

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SAMPLE #3326

LABORATORY ANALYSIS REPORT

PARAMETER	RESULTS	UNITS
1,1,1-TRICHLORDETHANE	<1.0	ug/l
CARBON TETRACHLORIDE	<1.0	ug/l
BROMODICHLOROMETHANE	<1.0	ug/l
1,2-DICHLOROPROPANE	<1.0	ug/l
TRANS-1,3-DICHLOROPROPENE	<1.0	ug/l
TRICHLOROETHYLENE	<1.0	ug/l
DIBROMOCHLOROMETHANE	<1.0	ug/l
CIS-1,3-DICHLOROPROPENE	<1.0	ug/l
1,1,2-TRICHLORDETHANE	<1.0	ug/l
BENZENE	<1.0	ug/l
2-CHLOROETHYLVINYL ETHER	<1.0	ug/l
BROMOFORM	<1.0	ug/l
TETRACHLOROETHYLENE	<1.0	ug/l
1,1,2,2-TETRACHLORDETHANE	<1.0	ug/l
TOLUENE	8.0	ug/l
1,2 DICHLOROBENZENE	<1.0	ug/l
1,3 DICHLOROBENZENE	<1.0	ug/l
1,4 DICHLOROBENZENE	<1.0	ug/l
TRICHLOROFLUOROMETHANE	10.	ug/l

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P.O. BOX 315
SYRACUSE, NY 13209

Date: Apr 06 1989

Attention: MARK HANSON

PURCHASE ORDER # :SPILL885323

SAMPLE #3327

LABORATORY ANALYSIS REPORT

SAMPLE SUMMARY

CLIENT	: ENVIRONMENTAL OIL INC.	DATE RECEIVED	: 03/20/89
JOB #	: 405.099.00	DATE COLLECTED	: 03/18/89
LOCATION	: MW-5	TIME COLLECTED	: NA
METHOD	:GRAB		

PARAMETER	RESULTS	UNITS
ACETONE	<5.0	ug/l
CHLOROMETHANE	<5.0	ug/l
BROMOMETHANE	<5.0	ug/l
VINYL CHLORIDE	<5.0	ug/l
CHLOROETHANE	<5.0	ug/l
METHYLENE CHLORIDE	<1.0	ug/l
CHLOROBENZENE	<1.0	ug/l
1,1-DICHLOROETHYLENE	<1.0	ug/l
1,1-DICHLOROETHANE	<1.0	ug/l
TRANS-1,2-DICHLOROETHYLENE	<1.0	ug/l
ETHYLBENZENE	<1.0	ug/l
CHLOROFORM	<1.0	ug/l
1,2-DICHLOROETHANE	<1.0	ug/l

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SAMPLE #3327

LABORATORY ANALYSIS REPORT

PARAMETER	RESULTS	UNITS
1,1,1-TRICHLOROETHANE	<1.0	ug/l
CARBON TETRACHLORIDE	<1.0	ug/l
BROMODICHLOROMETHANE	<1.0	ug/l
1,2-DICHLOROPROPANE	<1.0	ug/l
TRANS-1,3-DICHLOROPROPENE	<1.0	ug/l
TRICHLOROETHYLENE	<1.0	ug/l
DIBROMOCHLOROMETHANE	<1.0	ug/l
CIS-1,3-DICHLOROPROPENE	<1.0	ug/l
1,1,2-TRICHLOROETHANE	<1.0	ug/l
BENZENE	<1.0	ug/l
2-CHLOROETHYLVINYL ETHER	<1.0	ug/l
BROMOFORM	<1.0	ug/l
TETRACHLOROETHYLENE	<1.0	ug/l
1,1,2,2-TETRACHLOROETHANE	<1.0	ug/l
TOLUENE	<1.0	ug/l
1,2 DICHLOROBENZENE	<1.0	ug/l
1,3 DICHLOROBENZENE	<1.0	ug/l
1,4 DICHLOROBENZENE	<1.0	ug/l
TRICHLOROFLUOROMETHANE	10.	ug/l

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Date: Apr 06 1989

Attention: MARK HANSON

PURCHASE ORDER # :SPILL885323

SAMPLE #3328

LABORATORY ANALYSIS REPORT

SAMPLE SUMMARY

CLIENT	: ENVIRONMENTAL OIL INC.	DATE RECEIVED	: 03/20/89
JOB #	: 405.099.00	DATE COLLECTED	: 03/18/89
LOCATION	: MW-6	TIME COLLECTED	: NA
METHOD	:GRAB		

PARAMETER	RESULTS	UNITS
ACETONE	<5.0	ug/l
CHLOROMETHANE	<5.0	ug/l
BROMOMETHANE	<5.0	ug/l
VINYL CHLORIDE	<5.0	ug/l
CHLOROETHANE	<5.0	ug/l
METHYLENE CHLORIDE	<1.0	ug/l
CHLOROBENZENE	<1.0	ug/l
1,1-DICHLOROETHYLENE	<1.0	ug/l
1,1-DICHLOROETHANE	<1.0	ug/l
TRANS-1,2-DICHLOROETHYLENE	<1.0	ug/l
ETHYLBENZENE	<1.0	ug/l
CHLOROFORM	<1.0	ug/l
1,2-DICHLOROETHANE	<1.0	ug/l

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SAMPLE #3328

LABORATORY ANALYSIS REPORT

PARAMETER	RESULTS	UNITS
1,1,1-TRICHLOROETHANE	<1.0	ug/l
CARBON TETRACHLORIDE	<1.0	ug/l
BROMODICHLOROMETHANE	<1.0	ug/l
1,2-DICHLOROPROPANE	<1.0	ug/l
TRANS-1,3-DICHLOROPROPENE	<1.0	ug/l
TRICHLOROETHYLENE	<1.0	ug/l
DIBROMOCHLOROMETHANE	<1.0	ug/l
CIS-1,3-DICHLOROPROPENE	<1.0	ug/l
1,1,2-TRICHLOROETHANE	<1.0	ug/l
BENZENE	<1.0	ug/l
2-CHLOROETHYLVINYL ETHER	<1.0	ug/l
BROMOFORM	<1.0	ug/l
TETRACHLOROETHYLENE	<1.0	ug/l
1,1,2,2-TETRACHLOROETHANE	<1.0	ug/l
TOLUENE	<1.0	ug/l
1,2 DICHLOROBENZENE	<1.0	ug/l
1,3 DICHLOROBENZENE	<1.0	ug/l
1,4 DICHLOROBENZENE	<1.0	ug/l
TRICHLOROFLUOROMETHANE	10.	ug/l

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Date: Apr 06 1989

Attention: MARK HANSON

PURCHASE ORDER # :SPILL885323

SAMPLE #3329

LABORATORY ANALYSIS REPORT

SAMPLE SUMMARY

CLIENT	: ENVIRONMENTAL OIL INC.	DATE RECEIVED :	03/20/89
JOB #	: 405.099.00	DATE COLLECTED :	03/18/89
LOCATION	: MW-7	TIME COLLECTED :	NA
METHOD	:GRAB		

PARAMETER	RESULTS	UNITS
ACETONE.	<5.0	ug/l
CHLOROMETHANE	<5.0	ug/l
BROMOMETHANE	<5.0	ug/l
VINYL CHLORIDE	<5.0	ug/l
CHLOROETHANE	<5.0	ug/l
METHYLENE CHLORIDE	<1.0	ug/l
CHLOROBENZENE	<1.0	ug/l
1,1-DICHLOROETHYLENE	<1.0	ug/l
1,1-DICHLOROETHANE	<1.0	ug/l
TRANS-1,2-DICHLOROETHYLENE	<1.0	ug/l
ETHYLBENZENE	<1.0	ug/l
CHLOROFORM	<1.0	ug/l
1,2-DICHLOROETHANE	<1.0	ug/l

NET NATIONAL ENVIRONMENTAL TESTING, INC.

NET Northeast, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Tel: (315) 446-8795
Fax: (315) 449-1611

Formerly CS Environmental Laboratory, Inc.

SAMPLE #3329

LABORATORY ANALYSIS REPORT

PARAMETER	RESULTS	UNITS
1,1,1-TRICHLOROETHANE	<1.0	ug/l
CARBON TETRACHLORIDE	<1.0	ug/l
BROMODICHLOROMETHANE	<1.0	ug/l
1,2-DICHLOROPROPANE	<1.0	ug/l
TRANS-1,3-DICHLOROPROPENE	<1.0	ug/l
TRICHLOROETHYLENE	<1.0	ug/l
DIBROMOCHLOROMETHANE	<1.0	ug/l
CIS-1,3-DICHLOROPROPENE	<1.0	ug/l
1,1,2-TRICHLOROETHANE	<1.0	ug/l
BENZENE	<1.0	ug/l
2-CHLOROETHYLVINYL ETHER	<1.0	ug/l
BROMOFORM	<1.0	ug/l
TETRACHLOROETHYLENE	<1.0	ug/l
1,1,2,2-TETRACHLOROETHANE	<1.0	ug/l
TOLUENE	4.0	ug/l
1,2 DICHLOROBENZENE	<1.0	ug/l
1,3 DICHLOROBENZENE	<1.0	ug/l
1,4 DICHLOROBENZENE	<1.0	ug/l
TRICHLOROFLUOROMETHANE	<10.	ug/l

NET NATIONAL ENVIRONMENTAL TESTING, INC.

NET Northeast, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Tel: (315) 446-8795
Fax: (315) 449-1611

Formerly CS Environmental Laboratory, Inc.

To: ENVIRONMENTAL OIL INC.
P.O. BOX 315
SYRACUSE, NY 13209

Date: Apr 06 1989

Attention: MARK HANSON

PURCHASE ORDER # :SPILL885323

SAMPLE #3330

LABORATORY ANALYSIS REPORT

SAMPLE SUMMARY

CLIENT	: ENVIRONMENTAL OIL INC.	DATE RECEIVED	: 03/20/89
JOB #	: 405.099.00	DATE COLLECTED	: 03/18/89
LOCATION	: MW-8	TIME COLLECTED	: NA
METHOD	:GRAB		

PARAMETER	RESULTS	UNITS
ACETONE	12.	ug/l
CHLOROMETHANE	<5.0	ug/l
BROMOMETHANE	<5.0	ug/l
VINYL CHLORIDE	<5.0	ug/l
CHLOROETHANE	<5.0	ug/l
METHYLENE CHLORIDE	<1.0	ug/l
CHLOROBENZENE	<1.0	ug/l
1,1-DICHLOROETHYLENE	<1.0	ug/l
1,1-DICHLOROETHANE	<1.0	ug/l
TRANS-1,2-DICHLOROETHYLENE	<1.0	ug/l
ETHYLBENZENE	<1.0	ug/l
CHLOROFORM	<1.0	ug/l
1,2-DICHLOROETHANE	<1.0	ug/l

NET NATIONAL ENVIRONMENTAL TESTING, INC.

NET Northeast, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Tel: (315) 446-8795
Fax: (315) 449-1611

Formerly CS Environmental Laboratory, Inc.

SAMPLE #3330

LABORATORY ANALYSIS REPORT

PARAMETER	RESULTS	UNITS
1,1,1-TRICHLOROETHANE	<1.0	ug/l
CARBON TETRACHLORIDE	<1.0	ug/l
BROMODICHLOROMETHANE	<1.0	ug/l
1,2-DICHLOROPROPANE	<1.0	ug/l
TRANS-1,3-DICHLOROPROPENE	<1.0	ug/l
TRICHLOROETHYLENE	<1.0	ug/l
DIBROMOCHLOROMETHANE	<1.0	ug/l
CIS-1,3-DICHLOROPROPENE	<1.0	ug/l
1,1,2-TRICHLOROETHANE	<1.0	ug/l
BENZENE	<1.0	ug/l
2-CHLOROETHYLVINYL ETHER	<1.0	ug/l
BROMOFORM	<1.0	ug/l
TETRACHLOROETHYLENE	<1.0	ug/l
1,1,2,2-TETRACHLOROETHANE	<1.0	ug/l
TOLUENE	6.0	ug/l
1,2 DICHLOROBENZENE	<1.0	ug/l
1,3 DICHLOROBENZENE	<1.0	ug/l
1,4 DICHLOROBENZENE	<1.0	ug/l
TRICHLOROFLUOROMETHANE	<10.	ug/l

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Northeast, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Tel: (315) 446-8795
Fax: (315) 449-1611

Formerly CS Environmental Laboratory, Inc.

To: ENVIRONMENTAL OIL INC.
P.O. BOX 315
SYRACUSE, NY 13209

Date: Apr 06 1989

Attention: MARK HANSON

PURCHASE ORDER # :SPILL885323

SAMPLE #3331

LABORATORY ANALYSIS REPORT

SAMPLE SUMMARY

CLIENT	: ENVIRONMENTAL OIL INC.	DATE RECEIVED	: 03/20/89
JOB #	: 405.099.00	DATE COLLECTED	: 03/18/89
LOCATION	: MW-9	TIME COLLECTED	: NA
METHOD	:GRAB		

PARAMETER	RESULTS	UNITS
ACETONE	12.	ug/l
CHLOROMETHANE	<5.0	ug/l
BROMOMETHANE	<5.0	ug/l
VINYL CHLORIDE	<5.0	ug/l
CHLOROETHANE	<5.0	ug/l
METHYLENE CHLORIDE	<1.0	ug/l
CHLOROBENZENE	<1.0	ug/l
1,1-DICHLOROETHYLENE	<1.0	ug/l
1,1-DICHLOROETHANE	<1.0	ug/l
TRANS-1,2-DICHLOROETHYLENE	<1.0	ug/l
ETHYLBENZENE	<1.0	ug/l
CHLOROFORM	<1.0	ug/l
1,2-DICHLOROETHANE	<1.0	ug/l

NET NATIONAL ENVIRONMENTAL TESTING, INC.

NET Northeast, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Tel: (315) 446-8795
Fax: (315) 449-1611

Formerly CS Environmental Laboratory, Inc.

SAMPLE #3331

LABORATORY ANALYSIS REPORT

PARAMETER	RESULTS	UNITS
1,1,1-TRICHLOROETHANE	<1.0	ug/l
CARBON TETRACHLORIDE	<1.0	ug/l
BROMODICHLOROMETHANE	<1.0	ug/l
1,2-DICHLOROPROPANE	<1.0	ug/l
TRANS-1,3-DICHLOROPROPENE	<1.0	ug/l
TRICHLOROETHYLENE	<1.0	ug/l
DIBROMOCHLOROMETHANE	<1.0	ug/l
CIS-1,3-DICHLOROPROPENE	<1.0	ug/l
1,1,2-TRICHLOROETHANE	<1.0	ug/l
BENZENE	<1.0	ug/l
2-CHLOROETHYLVINYL ETHER	<1.0	ug/l
BROMOFORM	<1.0	ug/l
TETRACHLOROETHYLENE	<1.0	ug/l
1,1,2,2-TETRACHLOROETHANE	<1.0	ug/l
TOLUENE	6.0	ug/l
1,2 DICHLOROBENZENE	<1.0	ug/l
1,3 DICHLOROBENZENE	<1.0	ug/l
1,4 DICHLOROBENZENE	<1.0	ug/l
TRICHLOROFLUOROMETHANE	10.	ug/l

NOTE:
Methyl Ethyl Ketone detected at a concentration of 6.0ug/l.

NYSDOH - ELAP #10067

APPROVED BY: Conrad Teufel Jr. DATE: 4/6/89

Kwickkleen

Manufactured Serial # | #14,000 |

Ground Water Technology
Oil Recovery Systems
Greenville NH 03048
Tel (603) 878-2500

Fiberglass

N 14415

Sticker

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-

Henry G. Williams
Commissioner

TO: T. Quinn, Spill Response Section, Rm. 326

FROM: RICK LEARNER, Regional Spill Engr., Region 5

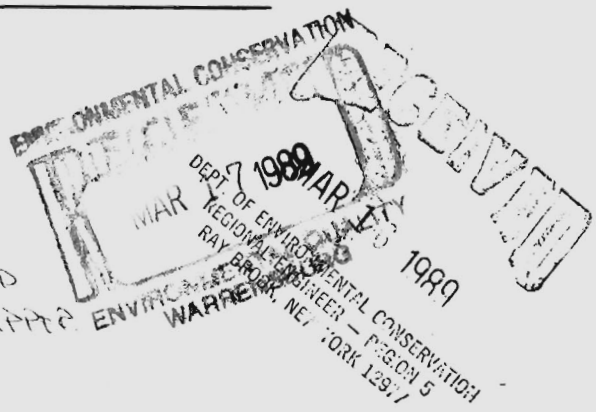
SUBJECT: Hazardous Spill Cleanup PAYMENT PACKAGE (NON-CONTRACT) # 1 OR CONTRACT (including lab work)

CONTRACTOR/VENDOR NAME GROUNDWATER TECHNOLOGY CONTRACT NO. D004531

SPILL NO. 8805323

LOCATION FAUN I SARATOGA ROAD

DATE: 3-14-89



Narrative of Events

Date of Spill: 9/20/88
Location of Spill: FAUN I SARATOGA ROAD
Spiller: KWIK KLEEN FURNITURE STRIPPER ENVIRONMENTAL
Material Spilled: METHYLENE CHLORIDE
Amount Spilled: UNKNOWN
Amount Recovered: UNKNOWN
Project Status (Current, Future):

PROJECT GIVEN TO SHW FOR REMEDIATION.

Purpose of Expenditure (What, Why):

LAB SAMPLING

Attached are one original and three copies of the following doucments for work performed from 12/29/88 to _____.

X Purchase Order, Service Agreement or Formal Contract as required $ 417.60

X Voucher (AC92) only for cleanups costing up to $5,000

_____ Contractor's Application for Payment (32-02-2) for contracts over $5,000

X Invoice 10153

_____ Standard Clauses (For Payment over $2,500) (32-02-2)

_____ Solicitation Record as Required

_____ Written Quotations as required

_____ Affidavit as required for final payments on contracts over $5,000

Attach.

cc: T. Plesnarski, Spill Response Section, Rm. 326 (cover letter only)

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-

Henry G. Williams
Commissioner

TO: T. Quinn, Spill Response Section, Rm. 326

FROM: Rich Wagner, Regional Spill Engr., Region 5

SUBJECT: Hazardous Spill Cleanup PAYMENT PACKAGE (NON-CONTRACT) #8 OR CONTRACT (including lab work)

CONTRACTOR/VENDOR NAME Groundwater Technology CONTRACT NO. D100088

SPILL NO. 8805373

LOCATION Fenn/Saratoga Road

DATE: 3/13/89

RECEIVED MAR 17 1989 ENVIRONMENTAL CONSERVATION WARRENSBURG

RECEIVED MAR 16 1989 DEPT. OF ENVIRONMENTAL CONSERVATION REGIONAL ENGINEER — REGION 5 RAY BROOK, NEW YORK 12977

Narrative of Events

Date of Spill: 9/20/88
Location of Spill: Fenn/Saratoga Road
Spiller: Kwik Kleen Furniture Strippers
Material Spilled: MCL
Amount Spilled: Unknown
Amount Recovered: Unknown
Project Status (Current, Future): Project turned over to SiDW for remediation

Purpose of Expenditure (What, Why): Last invoice - (GWT) Groundwater Tech.

Attached are one original and three copies of the following doucments for work performed from 12/29/88 to 1/28/89.

X Purchase Order, Service Agreement or Formal Contract as required $ 110.94

X Voucher (AC92) only for cleanups costing up to $5,000

___ Contractor's Application for Payment (32-02-2) for contracts over $5,000

X Invoice 10117

___ Standard Clauses (For Payment over $2,500) (32-02-2)

___ Solicitation Record as Required

___ Written Quotations as required

___ Affidavit as required for final payments on contracts over $5,000

Attach.

cc: T. Plesnarski, Spill Response Section, Rm. 326 (cover letter only)

RECEIVED FEB 0 6 1989

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-

Henry G. Williams
Commissioner

TO: T. Quinn, Spill Response Section, Rm. 326

FROM: R WAGNER, Regional Spill Engr., Region 5.

SUBJECT: Hazardous Spill Cleanup PAYMENT PACKAGE (NON-CONTRACT) #4 OR CONTRACT (including lab work)

CONTRACTOR/VENDOR NAME GROUNDWATER TECHNOLOGY CONTRACT NO. D100088.
SPILL NO. 8805323.
LOCATION SO. GLENS FALLS, WARREN CO.

RECEIVED
FEB 03 1989
DEPT. OF ENVIRONMENTAL CONSERVATION
REGIONAL ENGINEER – REGION 5
RAY BROOK, NEW YORK

DATE: Jan 31 | 89

Narrative of Events

Date of Spill: 9-20-88
Location of Spill: FAWN/SARATOGA ROAD, SO. GLENS FALLS, SARATOGA.
Spiller: KWIK KLEEN FURNITURE STRIPPERS
Material Spilled: METHYLENE CHLORIDE
Amount Spilled: UNKNOWN
Amount Recovered: UNKNOWN
Project Status (Current, Future):

" SE NW - cleanup taking ongoing cleanup & groundwater study

Purpose of Expenditure (What, Why):

" Project groundwater treatment with air stripper & lab work

Attached are one original and three copies of the following doucments for work performed from 10/7/88 to 12/24/88.

X. Purchase Order, Service Agreement or Formal Contract as required $ 4959.81.

X Voucher (AC92) only for cleanups costing up to $5,000

____ Contractor's Application for Payment (32-02-2) for contracts over $5,000

X. Invoice 9810

____ Standard Clauses (For Payment over $2,500) (32-02-2)

____ Solicitation Record as Required

____ Written Quotations as required

____ Affidavit as required for final payments on contracts over $5,000

Attach.

cc: T. Plesnarski, Spill Response Section, Rm. 326 (cover letter only)

RECEIVED FEB 0 6 1989

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-

Henry G. Williams
Commissioner

TO: T. Quinn, Spill Response Section, Rm. 326

FROM: RICH WAGNER., Regional Spill Engr., Region 5

SUBJECT: Hazardous Spill Cleanup PAYMENT PACKAGE (NON-CONTRACT) #5 OR CONTRACT (including lab work)

CONTRACTOR/VENDOR NAME GROUNDWATER TECH CONTRACT NO. D00151

SPILL NO. 8805323

LOCATION SO. GLENS FALLS, SARATOGA CO

RECEIVED
FEB 03 1989
DEPT. OF ENVIRONMENTAL CONSERVATION
REGIONAL ENGINEER – REGION 5
RAY BROOK, NEW YORK 12977

DATE: Jan 31 89

Narrative of Events

Date of Spill: 9-20-88.
Location of Spill: FAUN/SARATOGA ROAD, SO. GLENS FALLS, SARATOGA
Spiller: KUK KLEEN FURNATURE STRIPPERS
Material Spilled: METHYLENE CHLORIDE
Amount Spilled: UNKNOWN
Amount Recovered: UNKNOWN
Project Status (Current, Future):

11 S&HW - cleanup failed over
ongoing cleanup & groundwater study

Purpose of Expenditure (What, Why):

11 Project groundwater sampling with
air stripper & Lab work.

Attached are one original and three copies of the following doucments for work performed from 11/16/88 to 12/24/88.

X Purchase Order, Service Agreement or Formal Contract as required $ 1254.89.

X Voucher (AC92) only for cleanups costing up to $5,000

____ Contractor's Application for Payment (32-02-2) for contracts over $5,000

X. Invoice 9817.

____ Standard Clauses (For Payment over $2,500) (32-02-2)

____ Solicitation Record as Required

____ Written Quotations as required

____ Affidavit as required for final payments on contracts over $5,000

Attach.

cc: T. Plesnarski, Spill Response Section, Rm. 326 (cover letter only)

JEFFCY (RESUBMITTAL) - ORIGINAL LOST

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-

RECEIVED
OCT 18 1988
DEPT. OF ENVIRONMENTAL CONSERVATION
REGIONAL ENGINEER – REGION 5
RAY BROOK, NEW YORK 12977

Henry G. Williams
Commissioner

TO: T. Quinn, Spill Response Section, Rm. 326

FROM: RICH WAGNER, Regional Spill Engr., Region 5

SUBJECT: Hazardous Spill Cleanup PAYMENT PACKAGE (NON-CONTRACT) #2 OR CONTRACT (including lab work)

CONTRACTOR/VENDOR NAME ADIRONDACK ENVIRONMENTAL CONTRACT NO. D100136.
SPILL NO. 8805323
LOCATION SO. GLENS FALLS ~~WARREN~~ CO. SARATOGA CO

DATE: ~~10-18-88~~ 1-31-89.

RECEIVED
JAN 31 1989
DEPT. OF ENVIRONMENTAL CONSERVATION
REGIONAL ENGINEER – REGION 5
RAY BROOK, NEW YORK 12977

Narrative of Events

Date of Spill: 9-20-88
Location of Spill: KWIK KLEEN SO. GLENS FALLS, SARATOGA ~~WARREN~~
Spiller: KWIK KLEAN FURNITURE
Material Spilled: METHYLENE CHLORIDE
Amount Spilled: 4K
Amount Recovered: NONE
Project Status (Current, Future):

RECEIVED FEB 2 1989

ONGOING GROUNDWATER TREATMENT

Purpose of Expenditure (What, Why):

SAMPLE MW / SOIL

Attached are one original and three copies of the following doucments for work performed from 9-26-88 to _____.

X Purchase Order, Service Agreement or Formal Contract as required $ 5533.20

X Voucher (AC92) only for cleanups costing up to $5,000

_____ Contractor's Application for Payment (32-02-2) for contracts over $5,000

X Invoice 016805

_____ Standard Clauses (For Payment over $2,500) (32-02-2)

_____ Solicitation Record as Required

_____ Written Quotations as required

_____ Affidavit as required for final payments on contracts over $5,000

Attach.

cc: T. Plesnarski, Spill Response Section, Rm. 326 (cover letter only)

12/87

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Henry G. Williams
Commissioner

TO: T. Quinn, Spill Response Section, Rm. 326

FROM: RICH WAGNER, Regional Spill Engr., Region 5

SUBJECT: Hazardous Spill Cleanup PAYMENT PACKAGE (NON-CONTRACT) #3 OR CONTRACT
(including lab work)

CONTRACTOR/VENDOR NAME GROUNDWATER TECHNOLOGY CONTRACT NO. D1CCCEE

SPILL NO. 8805323

LOCATION SO. GLENS FALLS, SARATOGA

DATE: 1-9-89

JAN 11 1989
DEPT. OF ENVIRONMENTAL CONSERVATION
REGIONAL ENGINEER - REGION 5
RAY BROOK, NEW YORK 12977

Narrative of Events

Date of Spill: 9-20-88
Location of Spill: FAWN ROAD, SO. GLENS FALLS, WARREN CO
Spiller: FMR ALLEN FURNITURE
Material Spilled: METHYLENE CHLORIDE
Amount Spilled: UNKNOWN
Amount Recovered: UNKNOWN
Project Status (Current, Future):

(1) PROJECT REMEDIATION
(2) CLOSED TO STAND

Purpose of Expenditure (What, Why):

PUMP AND TREAT GW

Attached are one original and three copies of the following documents for work performed from 10/27/88 to 11/26/88.

X Purchase Order, Service Agreement or Formal Contract as required $ 4936.55

X Voucher (AC92) only for cleanups costing up to $5,000

____ Contractor's Application for Payment (32-02-2) for contracts over $5,000

X Invoice 9453

____ Standard Clauses (For Payment over $2,500) (32-02-2)

____ Solicitation Record as Required

____ Written Quotations as required

____ Affidavit as required for final payments on contracts over $5,000

Attach.

cc: T. Blasenski, Spill Response Section, Rm. 326 (cover letter only)

ORIGINAL TO ALBANY 12-7-88 REJECTED
RESUBMIT TO ALBANY 1-11-89

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-

Henry G. Williams
Commissioner

TO: T. Quinn, Spill Response Section, Rm. 326

FROM: RICH WAGNER, Regional Spill Engr., Region 5

SUBJECT: Hazardous Spill Cleanup PAYMENT PACKAGE (NON-CONTRACT) #1 OF CONTRACT
(including lab work)

CONTRACTOR/VENDOR NAME DOMERMUTH ENVIRONMENTAL CONTRACT NO. D100079
SPILL NO. 8805323
LOCATION SO. GLENS FALLS

DATE: ~~12-7-88~~ 1-9-89

RECEIVED
DEC 12 1988
DIVISION OF WATER
BUREAU OF SPILL PREVENTION AND RESPONSE
SPILL RESPONSE SECTION

Narrative of Events

Date of Spill: 9-20-88
Location of Spill: KWIK KLEEN FURNITURE STRIPPING, SO. GLENS FALLS, WARREN CO.
Spiller: KWIK KLEEN
Material Spilled: METHYLENE CHLORIDE
Amount Spilled: UNKNOWN
Amount Recovered: UNKNOWN
Project Status (Current, Future):
(1) GW STUDY COMPLETED (3) MONITORING SITE
(2) AIR STRIPPER INSTALLED (4) TURNED OVER TO STATE
Purpose of Expenditure (What, Why):
(1) INSTALL 5 MW, IRW (3) GW REPORT
(2) DRUM CONTAMINATED ASH

Attached are one original and three copies of the following documents for work performed from 9-24-88 to 10-18-88.

X Purchase Order, Service Agreement or Formal Contract as required $ ~~10,022.28~~ $8371.42

~~X~~ Voucher (AC92) only for cleanups costing up to $5,000

X Contractor's Application for Payment (32-02-2) for contracts over $5,000

X Invoice 57998

____ Standard Clauses (For Payment over $2,500) (32-02-2)

____ Solicitation Record as Required

____ Written Quotations as required

____ Affidavit as required for final payments on contracts over $5,000

Attach.

RECEIVED JAN 12 1989

cc: T. Pleasants, Spill Response Section, Rm. 326 (cover letter only)

TO Gary Shrum

FROM MIKE

SUBJECT SPILL # 8805323 WARREN CO.

DATE 12/19/88

MESSAGE

AS PER ATTACHED MEMO & INVOICE #12456 (5798) WAS REJECTED BY ALBANY AND WILL BE RESUBMITTED. PLEASE NOTE IN FILE.

AMOUNT $ 10,022.28.

RECEIVED
DEC 20 1988
ENVIRONMENTAL QUALITY
WARRENSBURG

SIGNED

FORM 4S 468
(50 SETS) 4P468
bonless

☐ NO REPLY NECESSARY

☐ REPLY REQUESTED - USE REVERSE SIDE

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Thomas C. Jorling
Commissioner

December 15, 1988

Domermuth Petroleum Equipment
and Maintenance Corp.
P.O. Box 62
North Road
Clarksville, NY 12041

Dear Contractor:

(5799E)

In reference to attached invoice #12456 (Spill #8805323, Rt. 9N and Fawn Road, South Glens Falls) I am writing to clear up some confusion in billing. In the invoice, there were charges for a Driller and a Driller's Helper on 9/24/88 and 9/25/88. There were also charges on these same days for per foot drilling costs (Page 3 same invoice). The reasoning behind the "per foot" drilling rates, as listed in the contract, was to encompass the entire drilling process into a clear concise billing manner. This drilling process includes; all materials used, personnel needed, and all equipment utilized to install monitoring wells.

Therefore, I am disallowing the labor cost for Driller and Driller's Helper on the previously mentioned dates and invoice.

Also, for curb box installation, the contract states "the lump sum bid fo each curb box includes furnishing all labor, equipment and materials". (Page 40, paragraph 10 Curb Box Installation). Again, any labor costs that may have been, mistakenly, charged on this same invoice will also be disallowed.

Please resubmit your revised payment application and invoice to NYS Department of Environmental Conservation Region 5, Route 86, Raybrook, NY 12977, Attn: Wiley LaVigne.

I apologize for the confusion and appreciate your cooperation on this matter. If you have any questions, please call me at (518)457-2462.

Sincerely,

Anthony Karwiel

Anthony Karwiel
Bureau of Spill Response
NYSDEC

cc: Barbara Bishop
Mike McClean ✓
Bill Agresta

AK/ts

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-

Henry G. Williams
Commissioner

TO: T. Quinn, Spill Response Section, Rm. 326

FROM: RICH WAGNER, Regional Spill Engr., Region 5

SUBJECT: Hazardous Spill Cleanup PAYMENT PACKAGE (NON-CONTRACT) #2 OR CONTRACT
(including lab work)

CONTRACTOR/VENDOR NAME GROUNDWATER TECHNOLOGY CONTRACT NO. D000088.
SPILL NO. 8805323
LOCATION SO. GLENS FALLS, SARATOGA CO.

DATE: 12-28-88

Narrative of Events

Date of Spill: 9-20-88.
Location of Spill: KWIK KLEEN, SO. GLEN'S FALLS, SARATOGA.
Spiller: KWIK KLEEN
Material Spilled: METHYLENE CHLORIDE
Amount Spilled: UNKNOWN
Amount Recovered: UNKNOWN
Project Status (Current, Future):
(1) PUMP/TREAT GW
(2) GIVEN TO STATE TO REMEDIATE
Purpose of Expenditure (What, Why):
GROUNDWATER TREATMENT

Attached are one original and three copies of the following doucments for work performed from 9/25/88 to 10/29/88.

X Purchase Order, Service Agreement or Formal Contract as required $ 9811.40

_____ Voucher (AC92) only for cleanups costing up to $5,000

X Contractor's Application for Payment (32-02-2) for contracts over $5,000

X Invoice 9032

_____ Standard Clauses (For Payment over $2,500) (32-02-2)

_____ Solicitation Record as Required

_____ Written Quotations as required

_____ Affidavit as required for final payments on contracts over $5,000

Attach.

cc: T. Plesnarski, Spill Response Section, Rm. 326 (cover letter only)

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-

Henry G. Williams
Commissioner

TO: T. Quinn, Spill Response Section, Rm. 326

FROM: RICH WAGNER, Regional Spill Engr., Region 5

SUBJECT: Hazardous Spill Cleanup PAYMENT PACKAGE (NON-CONTRACT) #1 OR CONTRACT (including lab work)

CONTRACTOR/VENDOR NAME GROUNDWATER TECH. CONTRACT NO. D1000[illegible]
SPILL NO. 8805328
LOCATION SO. GLENS FALLS, SARATOGA

DATE: 12-27-89

Narrative of Events

Date of Spill: 9-20-88
Location of Spill: KWIK KLEEN, SO. GLENS FALLS, SARATOGA
Spiller: KWIK KLEEN
Material Spilled: METHYLENE CHLORIDE
Amount Spilled: UNKNOWN
Amount Recovered: UNKNOWN
Project Status (Current, Future): Project given to S & W

Purpose of Expenditure (What, Why): Remediation of groundwater

Attached are one original and three copies of the following doucments for work performed from 9-25-88 to 10-29-88.

X Purchase Order, Service Agreement or Formal Contract as required $ 27.14

X Voucher (AC92) only for cleanups costing up to $5,000

____ Contractor's Application for Payment (32-02-2) for contracts over $5,000

X Invoice 9041

____ Standard Clauses (For Payment over $2,500) (32-02-2)

____ Solicitation Record as Required

____ Written Quotations as required

____ Affidavit as required for final payments on contracts over $5,000

Attach.

cc: T. Plesnarski, Spill Response Section, Rm. 326 (cover letter only)

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-

Henry G. Williams
Commissioner

DEC 5 '88 DELETED ENVIRONMENTAL QUALITY WARREN CO.

TO: T. Quinn, Spill Response Section, Rm. 326

FROM: RICH WAGNER, Regional Spill Engr., Region 5

SUBJECT: Hazardous Spill Cleanup PAYMENT PACKAGE (NON-CONTRACT) #1 OR CONTRACT (including lab work)

CONTRACTOR/VENDOR NAME CT MALE CONTRACT NO. D100140
SPILL NO. 8805323
LOCATION SARATOGA CO. SO. GLENS FALLS

DATE: 12-__-88

Narrative of Events

Date of Spill: 9-20-88
Location of Spill: KWIK KLEEN FURNITURE STRIPPING, SO. GLENS FALL, SARAT
Spiller: KWIK KLEEN
Material Spilled: METHYLENE CHLORIDE
Amount Spilled: UK
Amount Recovered: UK
Project Status (Current, Future):
MW INSTALLED / DUH SAMPLING HOMES / TURNED OVER SHWN

Purpose of Expenditure (What, Why):
SAMPLE INFLUENT / EFFLUENT OF AIR STRIPPER.

Attached are one original and three copies of the following doucments for work performed from 10-18-88 to _____.

X Purchase Order, Service Agreement or Formal Contract as required $ 835.20

X Voucher (AC92) only for cleanups costing up to $5,000

_____ Contractor's Application for Payment (32-02-2) for contracts over $5,000

X Invoice 40385

_____ Standard Clauses (For Payment over $2,500) (32-02-2)

_____ Solicitation Record as Required

_____ Written Quotations as required

_____ Affidavit as required for final payments on contracts over $5,000

Attach.

cc: T. Plesnarski, Spill Response Section, Rm. 326 (cover letter only)

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-

Henry G. Williams
Commissioner

DEC 5 1988

TO: T. Quinn, Spill Response Section, Rm. 326

FROM: RICH WAGNER, Regional Spill Engr., Region 5

SUBJECT: Hazardous Spill Cleanup PAYMENT PACKAGE (NON-CONTRACT) #2 OR CONTRACT (including lab work)

CONTRACTOR/VENDOR NAME CT MALE CONTRACT NO. D00140
SPILL NO. 8805323
LOCATION SARATOGA RD. SO. GLENS FALLS

DATE: 12-2-88

Narrative of Events

Date of Spill: 9-20-88
Location of Spill: KWIK KLEEN FURNATURE STRIPPING, SO. GLENS FALLS
Spiller: KWIK KLEEN
Material Spilled: METHYLENE CHLORIDE
Amount Spilled: UK
Amount Recovered: UK.
Project Status (Current, Future):

MW'S INSTALLED/ DOH SAMPLING HOMES/ TURNED OVER SAMP.

Purpose of Expenditure (What, Why):

SAMPLE RUNOFF FROM FIRE TO DETERMINE % CONTAM

Attached are one original and three copies of the following doucments for work performed from 9-20-88 to _____.

X Purchase Order, Service Agreement or Formal Contract as required $ 104.46

X Voucher (AC92) only for cleanups costing up to $5,000

_____ Contractor's Application for Payment (32-02-2) for contracts over $5,000

X Invoice 40384

_____ Standard Clauses (For Payment over $2,500) (32-02-2)

_____ Solicitation Record as Required

_____ Written Quotations as required

_____ Affidavit as required for final payments on contracts over $5,000

Attach.

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-

RECEIVED
OCT 18 1988
DEPT. OF ENVIRONMENTAL CONSERVATION
REGIONAL ENGINEER — REGION 5
RAY BROOK, NEW YORK 12977

Henry G. Williams
Commissioner

TO: T. Quinn, Spill Response Section, Rm. 326

FROM: RICH WAGNER, Regional Spill Engr., Region 5

SUBJECT: Hazardous Spill Cleanup PAYMENT PACKAGE (NON-CONTRACT) #1 OR CONTRACT (including lab work)

CONTRACTOR/VENDOR NAME ADIRONDACK ENVIRONMENTAL CONTRACT NO. D00136
SPILL NO. 8805323
LOCATION GLENS FALLS, WARREN CO.

DATE: 10-18-88

Narrative of Events

Date of Spill: 9-20-88
Location of Spill: KWIK KLEEN S. GLENS FALLS, WARREN CO
Spiller: KWIK KLEEN FURNITURE
Material Spilled: METHYLENE CHLORIDE
Amount Spilled: UNK
Amount Recovered: NONE
Project Status (Current, Future):
MW INSTALLED
AIR STRIPPER INSTALLED
Purpose of Expenditure (What, Why):
ANALYSIS OF ASH DEBRIS

Attached are one original and three copies of the following doucments for work performed from 9/26/88 to _____.

X Purchase Order, Service Agreement or Formal Contract as required $ 47092

X Voucher (AC92) only for cleanups costing up to $5,000

_____ Contractor's Application for Payment (32-02-2) for contracts over $5,000

X Invoice 016771

_____ Standard Clauses (For Payment over $2,500) (32-02-2)

_____ Solicitation Record as Required

_____ Written Quotations as required

_____ Affidavit as required for final payments on contracts over $5,000

Attach.

cc: T. Plesnarski, Spill Response Section, Rm. 326 (cover letter only)

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

RECEIVED
OCT 18 1988
DEPT. OF ENVIRONMENTAL CONSERVATION
REGIONAL ENGINEER — REGION 5
RAY BROOK, NEW YORK 12977

Henry G. Williams
Commissioner

TO: T. Quinn, Spill Response Section, Rm. 326

FROM: RICH WAGNER, Regional Spill Engr., Region 5

SUBJECT: Hazardous Spill Cleanup PAYMENT PACKAGE (NON-CONTRACT) #2 OR CONTRACT (including lab work)

CONTRACTOR/VENDOR NAME ADIRONDACK ENVIRONMENTAL CONTRACT NO. D100136.
SPILL NO. 8805323
LOCATION SO. GLENS FALLS WARREN CO.

DATE: 10-18-88

Narrative of Events

Date of Spill: 9-20-88
Location of Spill: FUNK KLEEN SO. GLENS FALLS, WARREN
Spiller: FUNK KLEAN FURNITURE
Material Spilled: METHYLENE CHLORIDE
Amount Spilled: UK
Amount Recovered: NONE
Project Status (Current, Future):

ONGOING GROUNDWATER TREATMENT

Purpose of Expenditure (What, Why):

SAMPLE MW / SOIL

Attached are one original and three copies of the following doucments for work performed from 9-26-88 to _____.

X Purchase Order, Service Agreement or Formal Contract as required $ 5533.20

X Voucher (AC92) only for cleanups costing up to $5,000

_____ Contractor's Application for Payment (32-02-2) for contracts over $5,000

X Invoice 016805

_____ Standard Clauses (For Payment over $2,500) (32-02-2)

_____ Solicitation Record as Required

_____ Written Quotations as required

_____ Affidavit as required for final payments on contracts over $5,000

Attach.

cc: T. Plesnarski, Spill Response Section, Rm. 326 (cover letter only)

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-

Henry G. Williams
Commissioner

RECEIVED
DEC 07 1988
DEPT. OF ENVIRONMENTAL CONSERVATION
REGIONAL ENGINEER — REGION 5
RAY BROOK, NEW YORK 12977

TO: T. Quinn, Spill Response Section, Rm. 326

FROM: RICH WAGNER, Regional Spill Engr., Region 5

SUBJECT: Hazardous Spill Cleanup PAYMENT PACKAGE (NON-CONTRACT) #1 OF CONTRACT
(including lab work)

CONTRACTOR/VENDOR NAME DOMERMUTH ENVIRONMENTAL CONTRACT NO. D100079
SPILL NO. 8805323
LOCATION So. GLENS FALLS

DATE: 12-7-88

Narrative of Events

RECEIVED
DEC 9 1988
ENVIRONMENTAL QUALITY
WARRENSBURG

Date of Spill: 9-20-88
Location of Spill: KWIK KLEEN FURNITURE STRIPPING, So. GLENS FALLS, WARREN CO.
Spiller: KWIK KLEEN
Material Spilled: METHYLENE CHLORIDE
Amount Spilled: UNKNOWN
Amount Recovered: UNKNOWN
Project Status (Current, Future):
(1) GW STUDY COMPLETED (3) MONITORING SITE
(2) AIR STRIPPER INSTALLED (4) TURNED OVER TO STATE
Purpose of Expenditure (What, Why):
(1) INSTALL 5 MW, 1 RW (3) GW REPORT
(2) DRUM CONTAMINATED ASHES

Attached are one original and three copies of the following documents for work performed from 9-24-88 to 10-18-88.

X Purchase Order, Service Agreement or Formal Contract as required $ 10,022.28

Voucher (AC92) only for cleanups costing up to $5,000

X Contractor's Application for Payment (32-02-2) for contracts over $5,000

X Invoice 57998

_____ Standard Clauses (For Payment over $2,500) (32-02-2)

_____ Solicitation Record as Required

_____ Written Quotations as required

_____ Affidavit as required for final payments on contracts over $5,000

Attach.

cc: T. Plesnarski, Spill Response Section, Rm. 326 (cover letter only)