

# **Exhibit 1**



Fuss & O'Neill Inc. Consulting Engineers

146 Hartford Road, Manchester, Connecticut 06040-5921  
TEL 203 646-2469 FAX 203 643-6313

Solid Waste Management	Environmental Engineering
Industrial/Hazardous Waste Management	Wastewater Management
Stream Impact Analysis	Site Planning/Engineering
Water Resources Engineering	Hydrogeology
Transportation Engineering	Park Design
Environmental Field Services	Surveying

April 8, 1992

Ms. Elsie Patton  
Connecticut Department of  
Environmental Protection  
165 Capital Avenue  
Hartford, CT 06106

**BUREAU WATER MANAGEMENT**

**SITE NAME** CHUBB Hall Farm

**ADDRESS** \_\_\_\_\_

**TOWN** Simsbury

**FILE TYPE** PERD

Re: Ground-water Sample Results  
Hall Farm, Simsbury, Connecticut and

Dear Ms. Patton:

Enclosed please find the analytical results of the ground-water monitoring conducted by this office on January 15, 1992 at the above referenced site. Ground-water samples including QA/QC trip blank and equipment blank were relinquished to Alpha Analytical Laboratories of Westborough, Massachusetts. The groundwater sampling field parameters are presented on Table No. 1.

The analytical results for the ground-water samples collected at the Hall Farm, Simsbury, Connecticut on January 15, 1992 had reported lead at 0.002 mg/l in wells MW-302 and MW-303. These lead values are below the regulatory limit of 0.05 mg/l. The lead detected is also at the analytical detection limit for lead of 0.002 mg/l. See Figure No. 1 for illustration of the ground-water contours and flow direction. None of the principal constituents of the remediated material were present in the ground water.

Should you have any questions or concerns, please call at your earliest convenience.

Sincerely yours,

*Joyce Pouliot*  
James P. Lardie  
Project Hydrogeologist

*David F. Hurley*  
David F. Hurley  
Associate

JPL/jib

cc: A. Ross Wollen, Esq.  
Charles Nicol, Esq.



TABLE NO. 1  
FIELD PARAMETERS - WATER QUALITY TESTING  
CULBRO TOBACCO  
JANUARY 1992

<u>SAMPLE NUMBER</u>	<u>LOCATION WELL NO.</u>	<u>pH</u>	<u>SPECIFIC CONDUCTANCE</u>	<u>TEMPERATURE C°</u>
HALL FARM, SIMSBURY, CONNECTICUT				
313920115-01	MW-304	8.58	403	8.9
-02	MW-303	7.65	346	7.7
-03	MW-302	7.70	347	8.4
-04	MW-301	8.09	350	8.3
313920117-08	Trip Blank	---	---	---
-10	Equipment Blank	---	---	---

TABLE NO. 2  
GROUND-WATER QUALITY - ANALYTICAL RESULTS  
CULBRO TOBACCO  
HALL FARM  
SIMSBURY, CONNECTICUT

<u>SAMPLE NUMBER</u>	<u>SAMPLE LOCATION</u>	<u>PARAMETERS DETECTED</u>
HALL FARM, SIMSBURY, CONNECTICUT		
313920115-01	MW-304	Lead 0.002 mg/l
-02	MW-303	None Detected (ND)
-03	MW-302	Lead 0.002 mg/l
-04	MW-301	ND
313920117-08	Trip Blank	ND
-10	Equipment Blank	ND



## ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive  
Westborough, Massachusetts 01581-1019  
(508) 898-9220

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

## CERTIFICATE OF ANALYSIS

Client: Fuss & O'Neill

Laboratory Job Number: 9200336

Address: 146 Hartford Road

Invoice Number: 27384

Manchester, CT 06040

Date Received: 01/16/92

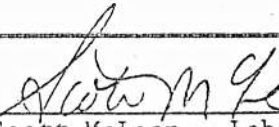
Attn: Dave Hurley

Date Reported: 01/30/92

Client Designation: Project# 84-255  
Culbro Hall Farm

Delivery Method: Alpha Courier

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
9200336.1	313920115-01	Simsbury, CT MW-304
9200336.2	313920115-02	Simsbury, CT MW-303
9200336.2D	313920115-02 (Duplicate)	Simsbury, CT
9200336.3	313920115-03	Simsbury, CT MW-302
9200336.3S	313920115-03 (Spike Rec)	Simsbury, CT
9200336.4	313920115-04	Simsbury, CT MW-301

Authorized by:   
Scott McLean - Laboratory Director

cp

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9200336.1  
(313920115-01)

Date Received: 01/16/92

Sample Matrix: Liquid

Date Reported: 01/30/92

Condition of Samples: Satisfactory

Field Prep: Metals were field  
filtered and preserved

Number & Type of Containers: One plastic & one glass bottle & four VOA vials

Analysis Requested: Analysis as listed below

PARAMETER	RESULT	UNITS	MDL	REF*	METHOD	DATES	
						EXT/PREP	ANALYSIS
Volatile Organics ***	ND	ug/L	**	1	8260	----	01/17/92
PCB ***	ND	ug/L	5.0	1	8080	01/21/92	01/30/92
Pesticides ***	ND	ug/L	0.20	1	8080	01/21/92	01/30/92
Pesticides:							
Ethylene dibromide	ND	ug/L	0.05	14	504	01/30/92	01/30/92
Dibromochloropropane	ND	ug/L	0.05	14	504	01/30/92	01/30/92
Dissolved Metals							
Arsenic	ND	mg/L	0.005	1	7060	----	01/26/92
Copper	ND	mg/L	0.01	1	6010	----	01/26/92
Lead	0.002	mg/L	0.002	1	7421	----	01/26/92

Volatile Organics  
1,2-Dichloroethane-d4  
Toluene-d8  
4-Bromofluorobenzene

%Surrogate Recovery  
108%  
102%  
93%

COMMENTS: \* Complete list of References found in Addendum I  
\*\* A list of volatile organics, PCB's and pesticides analyzed for  
and their detection limits accompanies this report.  
\*\*\* All compounds were below the detection limits except those listed  
above.

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9200336.2 Date Received: 01/16/92  
(313920115-02)

Sample Matrix: Liquid Date Reported: 01/30/92

Condition of Samples: Satisfactory Field Prep: Metals were field  
filtered and preserved

Number & Type of Containers: One plastic & one glass bottle & four VOA vials

Analysis Requested: Analysis as listed below

PARAMETER	RESULT	UNITS	MDL	REF*	METHOD	DATES	
						EXT/PREP	ANALYSIS
Volatile Organics ***	ND	ug/L	**	1	8260	----	01/17/92
PCB ***	ND	ug/L	5.0	1	8080	01/21/92	01/30/92
Pesticides ***	ND	ug/L	0.40	1	8080	01/21/92	01/30/92
Pesticides:							
Ethylene dibromide	ND	ug/L	0.05	14	504	01/30/92	01/30/92
Dibromochloropropane	ND	ug/L	0.05	14	504	01/30/92	01/30/92
Dissolved Metals							
Arsenic	ND	mg/L	0.005	1	7060	----	01/26/92
Copper	ND	mg/L	0.01	1	6010	----	01/26/92
Lead	ND	mg/L	0.002	1	7421	----	01/26/92

Volatile Organics	%Surrogate Recovery
1,2-Dichloroethane-d4	99%
Toluene-d8	99%
4-Bromofluorobenzene	95%

COMMENTS: \* Complete list of References found in Addendum I

\*\* A list of volatile organics, PCB's and pesticides analyzed for  
and their detection limits accompanies this report.

\*\*\* All compounds were below the detection limits except those listed  
above.



ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9200336.2D Date Received: 01/16/92  
(313920115-02)

Sample Matrix: Liquid Date Reported: 01/30/92

Condition of Samples: Satisfactory

Field Prep: Metals were field  
filtered and preserved

Number & Type of Containers: One plastic & one glass bottle & four VOA vials

Analysis Requested: Analysis as listed below

PARAMETER	SAMPLE RESULT	DUPLICATE RESULT	ZRPD
PCB ***	ND	ND	NC
Pesticides ***	ND	ND	NC
Dissolved Metals			
Arsenic	ND	ND	NC
Copper	ND	ND	NC
Lead	ND	ND	NC

NC = Non calculable RPD

COMMENTS: \* Complete list of References found in Addendum I



ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9200336.3  
(313920115-03)

Date Received: 01/16/92

Sample Matrix: Liquid

Date Reported: 01/30/92

Condition of Samples: Satisfactory

Field Prep: Metals were field  
filtered and preserved

Number & Type of Containers: One plastic & one glass bottle & four VOA vials

Analysis Requested: Analysis as listed below

PARAMETER	RESULT	UNITS	MDL	REF*	METHOD	DATES	
						EXT/PREP	ANALYSIS
Volatile Organics ***	ND	ug/L	**	1	8260	----	01/17/92
PCB ***	ND	ug/L	5.0	1	8080	01/21/92	01/30/92
Pesticides ***	ND	ug/L	0.40	1	8080	01/21/92	01/30/92
Pesticides:							
Ethylene dibromide	ND	ug/L	0.05	14	504	01/30/92	01/30/92
Dibromochloropropane	ND	ug/L	0.05	14	504	01/30/92	01/30/92
Dissolved Metals							
Arsenic	ND	mg/L	0.005	1	7060	----	01/26/92
Copper	ND	mg/L	0.01	1	6010	----	01/26/92
Lead	0.002	mg/L	0.002	1	7421	----	01/26/92

Volatile Organics	%Surrogate Recovery
1,2-Dichloroethane-d4	108%
Toluene-d8	98%
4-Bromofluorobenzene	90%

COMMENTS: \* Complete list of References found in Addendum I

\*\* A list of volatile organics, PCB's and pesticides analyzed for  
and their detection limits accompanies this report.

\*\*\* All compounds were below the detection limits except those listed  
above.

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9200336.3S  
(313920115-03)

Date Received: 01/16/92

Sample Matrix: Liquid

Date Reported: 01/30/92

Condition of Samples: Satisfactory

Field Prep: Metals were field  
filtered and preserved

Number & Type of Containers: One plastic & one glass bottle & four VOA vials

Analysis Requested: Analysis as listed below

PARAMETER	%RECOVERY
Dissolved Metals	
Arsenic	90%
Copper	104%
Lead	96%

COMMENTS: \* Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9200336.4 Date Received: 01/16/92  
(313920115-04)

Sample Matrix: Liquid Date Reported: 01/30/92

Condition of Samples: Satisfactory

Field Prep: Metals were field  
filtered and preserved

Number & Type of Containers: One plastic & one glass bottle & four VOA vials

Analysis Requested: Analysis as listed below

PARAMETER	RESULT	UNITS	MDL	REF*	METHOD	DATES	
						EXT/PREP	ANALYSIS
Volatile Organics ***	ND	ug/L	**	1	8260	----	01/17/92
PCB ***	ND	ug/L	5.0	1	8080	01/21/92	01/30/92
Pesticides ***	ND	ug/L	0.20	1	8080	01/21/92	01/30/92
Pesticides:							
Ethylene dibromide	ND	ug/L	0.05	14	504	01/30/92	01/30/92
Dibromochloropropane	ND	ug/L	0.05	14	504	01/30/92	01/30/92
Dissolved Metals							
Arsenic	ND	mg/L	0.005	1	7060	----	01/26/92
Copper	ND	mg/L	0.01	1	6010	----	01/26/92
Lead	ND	mg/L	0.002	1	7421	----	01/26/92

Volatile Organics  
1,2-Dichloroethane-d4  
Toluene-d8  
4-Bromofluorobenzene

%Surrogate Recovery  
102%  
100%  
93%

COMMENTS: \* Complete list of References found in Addendum I

\*\* A list of volatile organics, PCB's and pesticides analyzed for  
and their detection limits accompanies this report.

\*\*\* All compounds were below the detection limits except those listed  
above.

ALPHA ANALYTICAL LABS  
PESTICIDE ANALYSIS by GC  
METHOD 608/8080

Alpha Job Number: 9200336  
Alpha Sample Number(s): 9200336.1, .4  
Method Detection Limit: 0.20 ug/L

Date Reported: 1/30/92

COMPOUND

Alpha BHC  
Lindane (gamma BHC)  
Beta BHC  
✓ Delta BHC  
Heptachlor  
Alachlor  
Atrazine  
Aldrin  
Heptachlor epoxide  
✓ Endrin  
Endrin aldehyde  
Endrin ketone  
Dieldrin  
P,p'-DDE  
P,p'-DDD  
P,p'-DDT  
Endosulfan I  
Endosulfan II  
Endosulfan Sulfate  
✓ Methoxychlor  
Chlordane  
Toxaphene



ALPHA ANALYTICAL LABS  
PESTICIDE ANALYSIS by GC  
METHOD 608/8080

Alpha Job Number: 9200336  
Alpha Sample Number(s): 9200336.2-.3  
Method Detection Limit: 0.40 ug/L

Date Reported: 1/30/92

COMPOUND

Alpha BHC  
Lindane (gamma BHC)  
Beta BHC  
Delta BHC  
Heptachlor  
Alachlor  
Atrazine  
Aldrin  
Heptachlor epoxide  
Endrin  
Endrin aldehyde  
Endrin ketone  
Dieldrin  
p,p'-DDE  
p,p'-DDD  
p,p'-DDT  
Endosulfan I  
Endosulfan II  
Endosulfan Sulfate  
Methoxychlor  
Chlordane  
Toxaphene

ALPHA ANALYTICAL LABS  
POLYCHLORINATED BIPHENYLS (PCB's) ANALYSIS by GC  
METHOD 608/8080

Alpha Job Number: 9200336

Date Reported: 1/30/92

Alpha Sample Number(s): 9200336.1-.4

Method Detection Limit: 5.0 ug/L

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COMPOUNDS

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PCB 1016

Arochlor 1221

Arochlor 1232

Arochlor 1242

Arochlor 1248

Arochlor 1254

Arochlor 1260

Arochlor 1262

Arochlor 1268

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ALPHA ANALYTICAL LABS  
VOLATILE ORGANICS ANALYSIS by GC/MS  
METHOD 8260

Alpha Job Number: 9200336 Date Reported: 1/30/92  
Alpha Sample Number(s): 9200336.1-.4  
Method Detection Limit: Stated Below

COMPOUNDS

Methylene chloride	5.0 ug/L
1,1-Dichloroethane	1.5 ug/L
Chloroform	1.5 ug/L
Carbon tetrachloride	1.0 ug/L
1,2-Dichloropropane	3.5 ug/L
Dibromochloromethane	1.0 ug/L
1,1,2-Trichloroethane	1.5 ug/L
2-Chloroethylvinyl ether	10.0 ug/L
Tetrachloroethene	1.5 ug/L
Chlorobenzene	3.5 ug/L
Trichlorofluoromethane	5.0 ug/L
1,2-Dichloroethane	1.5 ug/L
1,1,1-Trichloroethane	1.0 ug/L
Bromodichloromethane	1.0 ug/L
Trans-1,3-Dichloropropene	1.5 ug/L
Cis-1,3-Dichloropropene	1.0 ug/L
Bromoform	1.0 ug/L
1,1,2,2-Tetrachloroethane	1.0 ug/L
Benzene	1.0 ug/L
Toluene	1.5 ug/L
Ethyl benzene	1.0 ug/L
Xylenes	1.0 ug/L
Chloromethane	10.0 ug/L
Bromomethane	2.0 ug/L
Vinyl chloride	3.5 ug/L
Chloroethane	2.0 ug/L
1,1-Dichloroethene	1.5 ug/L
Trans-1,2-dichloroethene	1.5 ug/L
Cis-1,2-dichloroethene	1.0 ug/L
Trichloroethene	1.0 ug/L
Dibromomethane	10.0 ug/L
1,4-Dichloro-2-butane	10.0 ug/L
Ethanol	-- ug/L
Iodomethane	-- ug/L
1,2,3-Trichloropropane	10.0 ug/L
Dichlorodifluoromethane	10.0 ug/L
Acetone	10.0 ug/L
Carbon disulfide	10.0 ug/L
2-Butanone	4.5 ug/L
Vinyl acetate	10.0 ug/L
4-Methyl-2-pentanone	10.0 ug/L
2-Hexanone	10.0 ug/L

ALPHA ANALYTICAL LABS  
VOLATILE ORGANICS ANALYSIS by GC/MS  
METHOD 8260

Alpha Job Number: 9200336 Date Reported: 1/30/92  
Alpha Sample Number(s): 9200336.1-.4  
Method Detection Limit: Stated Below

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COMPOUNDS

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Styrene	1.0 ug/L
Ethyl methacrylate	-- ug/L
Acrolein	25 ug/L
Acrylonitrile	25 ug/L
Methyl tert butyl ether	10.0 ug/L
1,2-Dichlorobenzene	10.0 ug/L
1,3-Dichlorobenzene	10.0 ug/L
1,4-Dichlorobenzene	10.0 ug/L





Vol 104 513  
STATE OF CONNECTICUT

DEPARTMENT OF ENVIRONMENTAL PROTECTION

79 ELM STREET HARTFORD, CONNECTICUT 06106



Timothy R. E. Keeney  
Commissioner

July 6, 1994

Mr. A. Ross Wollen  
Culbro Corporation  
387 Park Avenue South  
New York, New York 10016

RECEIVED  
AUG 03 1994  
WATER MANAGEMENT  
PERMITTING, ENFORCEMENT  
& REMEDIATION DIVISION

Re: Order No. WC-4772

Dear Mr. Wollen:

On February 14, 1989, Order No. WC-4772 was issued to Culbro Corporation pursuant to Section 22a-6, 22a-424, 22a-425, 22a-432, 22a-433 and 22a-449 of the Connecticut General Statutes.

At this time, I have determined that Order No. WC-4772 should be revoked. Therefore, Order No. WC-4772 is hereby revoked.

Nothing in this revocation shall affect the Commissioner's authority to institute any proceeding to prevent or abate pollution, to recover costs for natural resource damages or to impose penalties for violations of the law.

Sincerely,

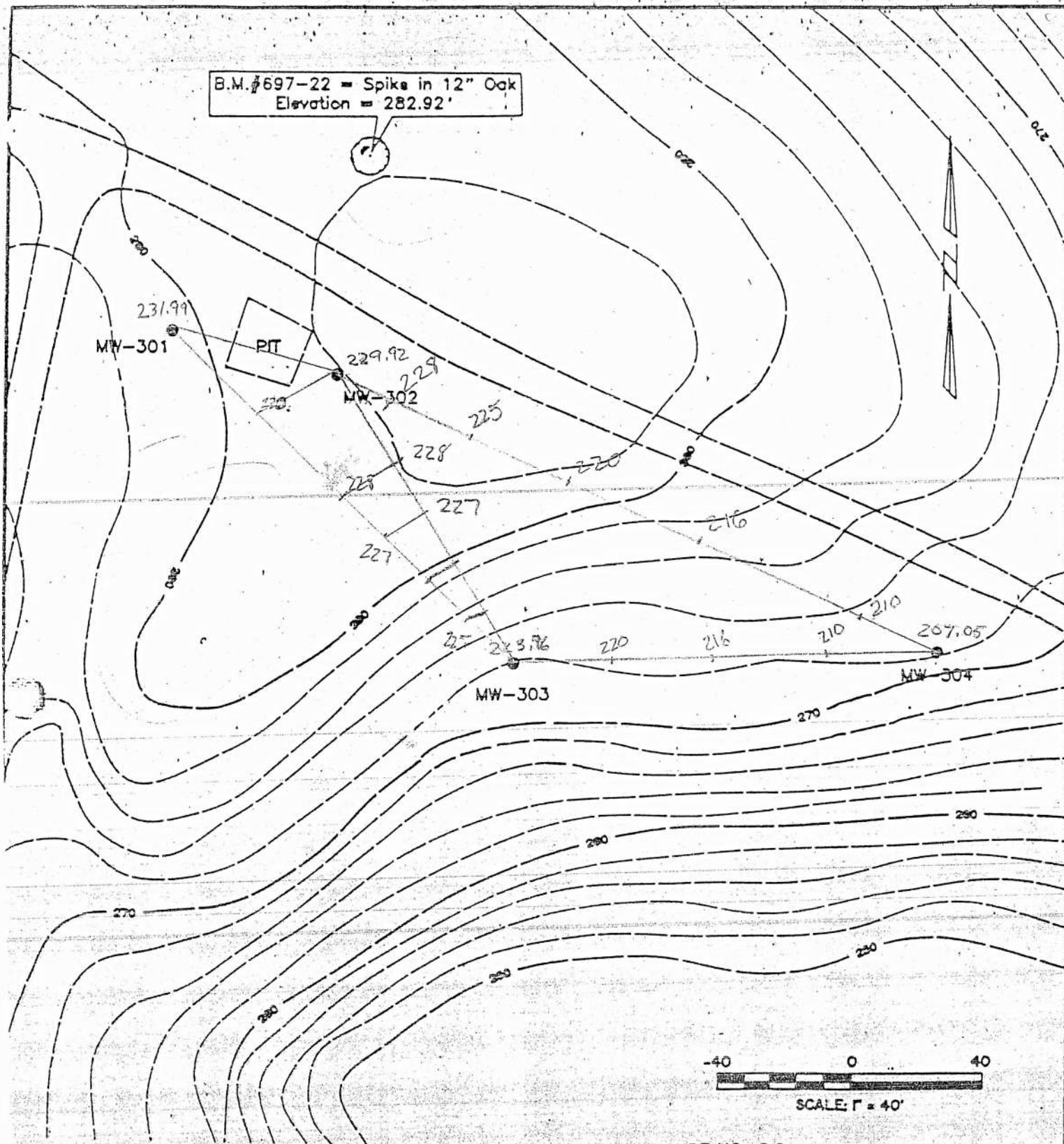
Timothy R. E. Keeney  
Commissioner

TREK:ECP:km

cc: Thomas W. Fahey, Jr.  
Charles Nicol  
Gregory J. Friess

EAST GRANBY LAND RECORDS VOL. 85 PAGE 109

RECEIVED JULY 11, 1994 AT 8:30 A.M.  
BY Elizabeth W. Birmingham  
TOWN CLERK



#### NOTES:

1. TOPOGRAPHY FROM TOWN OF SIMSBURY TOPOGRAPHIC MAPPING SHEETS H-4 AND H-5 DATED: JUNE 1979.
2. TOPOGRAPHIC FEATURES, SHOWN HEREON, WERE PREPARED IN ACCORDANCE WITH CLASS T-D.

FIGURE NO. 2.0.

 <b>FUSS &amp; O'NEILL</b> MANCHESTER, CONNECTICUT	
<b>SITE PLAN</b>	
<b>CULBRO TOBACCO COMPANY HALL FARM DISPOSAL SITE</b>	
HOSKINS ROAD	SIMSBURY, CT.
PROJ. NO. 84-255 DATE APR. 1991 SCALE: 1"=40'	

# NOTES

## ~~DEP Urban Sites Program Review~~ of Culbro- Hall Farm in Simsbury, CT

March, 1994

**SOURCES:** Fuss & O'Neill Reports (1986 & 1992), DEP files  
(included files from Waste and Water Bureaus)

### General Information:

- Location: County Road  
Simsbury, CT
- Site is in a GA area.
- The site has historically been used for agriculture, particularly for growing tobacco.
- It is assumed that the surrounding area is farmland and is not presently and has not been used in the past for industrial or residential purposes.

### Regulatory Information:

- Present on Inventory of Hazardous Waste Sites which is maintained pursuant to Sec. 22a-133c, CGS.
- Not on CERCLIS (federal preremedial database)
- Not on RCRIS (list of generators and handlers of hazardous waste)
- Order No. 4772 was issued on Feb. 14, 1989 by the Water Bureau to abate pollution to the site, caused by the disposal of pesticides.

### Site History:

- Culbro disposed of waste pesticides in the 1950's and the Health Dept. was aware of this at the time.
- In 1986 the CT Health Dept. told Culbro that these past practices were not safe and that they should dispose of these pesticides properly.
- 2/6/86- An area in the NE corner of the field was identified as the area used for waste disposal by Culbro personnel. A green powder was found at a depth of one foot. Analysis of a sample indicated dieldrin (0.31ppm), copper (26,058 ppm), and lead (156ppm).
  - Area of Concern:
    - disposal pit is approx. 20 ft. by 25 ft.
    - approx. 5000 ft. from Farmington River and 500 ft. from Saxton Brook
- Contaminated soils from this area were removed during several events between Oct. 1989 and June 1990.



DEP-Urban Sites Review  
Culbro Hall Farm Site, Simsbury  
Page 2

- archival soil sampling results (April 12, 1990):
  - two samples with 2.5 ppm and 4.7 ppm arsenic (0.05 ppm is acceptable)
  - a composite sample with pesticide concentrations:
    - DDE- 61 ppb
    - DDD- 290 ppb
    - DDT- 1050 ppb
  - a single sample with 779 ppb of DDT
- Soil was once again removed on 6/18/90. Samples were taken with concentrations of DDD (57 ppb) and DDT (348 ppb). No further soil was removed.
- Fuss & O'Neill installed four wells in 1990.
  - water table was found at approx. 50 ft below the ground surface.
  - Groundwater sampling 8/30/90:
    - 1,2-dichloropropane was detected at 6.8 ppb and 13ppb in two samples taken. This substance is a breakdown product of Vorlex, which is an agricultural soil fumigant.
    - This is not a material that was found in the disposal area by Fuss & O'Neill, and was therefore not considered related to Culbro's pesticide disposal, but believed to have been used on the subject field in the past.
  - Groundwater sampling 1/15/92:
    - lead was detected at levels within drinking water standards. .002

Underground Storage Tanks (UST's):

- No UST's are reported to exist on-site.

Asbestos:

- No buildings or other structures have been reported to exist on-site.

Potential Areas for Concern:

- An environmental site assessment and investigation is needed before the site can be accurately reviewed for possible environmental problems. Past use of the subject property and the surrounding land, along with the groundwater sampling results, suggest that pesticides were used in this area to a degree that may be of concern to the future development of the area.
- No proof was given that other areas were not also utilized for the disposal of pesticides.
- The investigation and remediation by Fuss & O'Neill only effected a 20 ft. by 25 ft. area of a large field (reported to be more than 100 acres). No other information on file suggests any other investigations or sampling has taken place at the site in question.



*Need to have research started on this site so that we will be ready to proceed in Spring. Note*

*do not have staff contact anyone outside the agency until we get word that it is ok.*

CULBRO TOBACCO  
HALL FARM DISPOSAL SITE  
SIMSBURY, CONNECTICUT

DRAFT

CHRONOLOGY OF EVENTS  
JANUARY 1994

<u>EVENT</u>	<u>REMARKS</u>	<u>DATE</u>
Subsurface Investigation	Test Pit Excavation	02/06/86
✓ Letter from Maurice Hamel, F&O to James Ray, CTDEP	Preliminary Remedial Report to CTDEP	April 1986
Draft Orders prepared by HWU and WCU	James Ray, Paul Marin and Scott Wing	May 1986
Proposed Administrative Consent Order	Delivered to Ed Parker	7/11/86
✓ Letter from Maurice Hamel, F&O to James Ray, CTDEP	Remedial Report to CTDEP	10/23/86
Letter from James Ray, CTDEP to Maurice Hamel, F&O	Supplement to Remedial Report, Response to 10/23/86 letter	11/21/86
Revised Draft Consent Order	Response to Proposed Consent Order	11/23/86
Letter from Maurice Hamel, F&O to James Ray, CTDEP	Proposed Remediation of Pesticide Disposal Area	01/06/87
Letter from Charles Nicol	Response CTDEP letter 11/21/86 Request approval Remediation Plan	01/12/87
Revised Draft Consent Order from CTDEP		01/21/88
CTDEP meeting with F&O	Meeting with Jeffery Heidtman & Elsie Patton	01/26/88

CULBRO TOBACCO  
HALL FARM DISPOSAL SITE  
SIMSBURY, CONNECTICUT

CHRONOLOGY OF EVENTS  
(continued)

<u>EVENT</u>	<u>REMARKS</u>	<u>DATE</u>
CTDEP request for more information	Information forwarded to Elsie Patton	01/28/88
Request CTDEPs comments	Proposed Scope of Work	05/19/88
Resubmitted comments to CTDEP	Comments and proposed revision for the Consent Order	05/27/88
Letter from F&O to Elsie Patton, CTDEP	Proposed Scope of Work - Sampling Parameters	08/16/88
Initiation and Remediation Indian Head Farm Disposal Sites	North and South Disposal Site remediation	09/20/88 - 06/07/90
State of CT vs. Culbro Corporation, Order to Abate Pollution, Order No. WC 4772, DEP/WPC No. 040-012/128/036		02/14/89
Site walkover with CTDEP David Hurley, Elsie Patton	Select groundwater monitoring well locations at Indian Head Farm	May 1989
Letter from F&O to Elsie Patton, CTDEP	Proposed Groundwater Sampling Plan	06/23/89
Site Health and Safety Meeting	Culbro, Tri-S, Fuss & O'Neill, Inc.	10/24/89
Site Preparation Begins	Tri-S	10/25/89
Disposal Site Excavation Begins	Tri-S	10/31/89
Disposal Site Primary		

CULBRO TOBACCO  
HALL FARM DISPOSAL SITE  
SIMSBURY, CONNECTICUT

CHRONOLOGY OF EVENTS  
(continued)

<u>EVENT</u>	<u>REMARKS</u>	<u>DATE</u>
Disposal Site Primary Excavation Ends	Tri-S	11/27/89
Additional Soil Excavation	Tri-S	12/01/89
Disposal Site Sampling	Fuss & O'Neill, Inc. Alpha Analytical	12/01/89
Additional Soil Excavation	Tri-S	01/03/90
Additional Soil Excavation	Tri-S	01/08/90
Disposal Site Sampling	Fuss & O'Neill, Inc.	01/10/90
Drums Shipped	Tri-S	01/15/90
Additional Soil Excavation	Tri-S	01/22/90
Disposal Site Sampling	Fuss & O'Neill, Inc. Alpha Analytical	01/31/90
Archival Sampling	Fuss & O'Neill, Inc.  Alpha Analytical	  04/12/90
Additional Site Excavation and Sampling	Tri-S, Alpha Analytical Fuss & O'Neill, Inc.	06/18/90
Excavation Backfilled	Culbro	07/23/90
Monitoring Wells Installed	Charles Pratt & Sons, Inc.	08/08/90 - 08/10/90
Groundwater Sampling	Fuss & O'Neill, Inc. Alpha Analytical	09/07/90



CULBRO TOBACCO  
HALL FARM DISPOSAL SITE  
SIMSBURY, CONNECTICUT

CHRONOLOGY OF EVENTS  
(continued)

<u>EVENT</u>	<u>REMARKS</u>	<u>DATE</u>
Groundwater Sampling	Fuss & O'Neill, Inc. Alpha Analytical	01/13/92
Fuss & O'Neill Report: Hall Farm Disposal Site, Pesticide Disposal Site Remediation, Culbro Corporation, Culbro Tobacco Farm No. 2, Simsbury, CT		March 1992
Letter from James Lardie, F&O to Elsie Patton, CTDEP	Letter and March 1992 Report	04/09/92
Letter of Transmittal to Marian Staye, Conservation Planning Analyst, Town of Simsbury, CT	March 1992 Report	04/09/92
Letter of Transmittal to Douglas Zimmerman, CTDEP, Bureau of Waste Management	March 1992 Report	04/09/92
Letter of Transmittal to Richard Matheny, Farmington Valley Health District	March 1992 Report	06/09/92





STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



MEMORANDUM

To: Else Patton; Water Management Bureau/PERD, DEP  
From: Craig Parks; PERD (Urban Site Program), DEP  
Date: April 22, 1994  
RE: PERD review of Culbro Hall Farm Site (Simsbury, CT)

I have reviewed the material on file at the DEP concerning the Culbro Tobacco Hall Farm site in Simsbury, CT. The reports were prepared by Fuss & O'Neill and were dated 1986 and 1992. The reports identify a 25 ft. X 20 ft. area of the Simsbury site where pesticides were buried during the 1950's. Sampling indicates that lead and copper based pesticides were disposed in this area.

General:

The Hall Farm site is located in an area with groundwater classification GA. The Area of Concern (AOC), stated above, is reportedly located 5000 feet from the Farmington River and 500 feet from Saxton Brook.

The geology of the site consists of stratified glacial drift atop glacial till. The stratified drift is predominantly medium to coarse sand, with silt and gravel layers. The till layer is approximately 10-20 feet above the bedrock. In the vicinity of this area the thickness of the soil above the bedrock is 300 feet. Therefore it can be assumed that the depth to the till and bedrock is in excess of 100 feet.

Investigation/Remediation:

The AOC was excavated, under the guidance of Fuss & O'Neill. Between Spring 1989 and Summer 1990 one to two feet layers of soil were removed on several occasions until closure standards were achieved. Soil samples were collected after each excavation event. The last layer was excavated at approximately 10 feet in depth. The results of confirmatory results resulted in the detection of p,p'-DDT and p,p'-DDD at 348 ppb and 50 ppb. These levels were below action levels established by Fuss & O'Neill. The DEP does not presently have standards for p,p'-DDD or p,p'-DDT in soils. Fuss & O'Neill's based their closure standards on the projection that this area would be used for agricultural purposes in the future.

Culbro (Simsbury)

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Four wells were installed to monitor groundwater quality in the vicinity of the excavation. Their locations are included in an attached site map. Two rounds of groundwater sampling, dated Sept. 1990 and Jan. 1992, were taken. The 1990 sampling event detected 1,2 dichloropropane (1,2-DCP) at 6.8 ppb upgradient of the AOC and at 13 ppb downgradient of the AOC. 1,2-DCP is a breakdown product of Vorlex, which is a pesticide used on the agricultural lands in the area. No parameters were detected above minimum detection limits (MDL) during the sampling on Jan. 1992, except lead at 2 ppb, which is a concentration below the groundwater protection criteria of 15 ppb. If a well were installed south of the AOC a more accurate picture of the groundwater flow direction and the effect of the AOC on the site's groundwater could be more clearly defined. No formal monitoring plan has been developed or initiated at the site, according to information on file with the department.

#### MDL's of Sampling Events:

Many of the minimum detection limits (MDL) used in the analysis of the soil and groundwater samples are in question. The groundwater MDL's were checked with the DEP's groundwater protection criteria. Several of the MDL's exceeded the groundwater protection criteria. Below are a few examples of this.

For example:

The final soil samples were analyzed with MDL's for PCB's at 250 ppb, and all tested pesticides, which included dieldrin and other pesticides buried at the AOC, had MDL's of 50 ppb. The groundwater protection criteria for dieldrin and PCB's are 0.002 ppb and 0.5 ppb respectively.

The groundwater sampling on Sept. 1990 had MDL's of 50 ppb for lead, 10 ppb for cadmium, and 2.5 ppb for PCB's. Groundwater protection criteria for those substances is 15 ppb, 5 ppb, and 0.5 ppb respectively. The Jan. 1992 sampling had MDL's for pesticides of 0.2 ppb, which is above the groundwater protection criteria values of in several cases less than 0.1 ppb.



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#### Analysis and Conclusions:

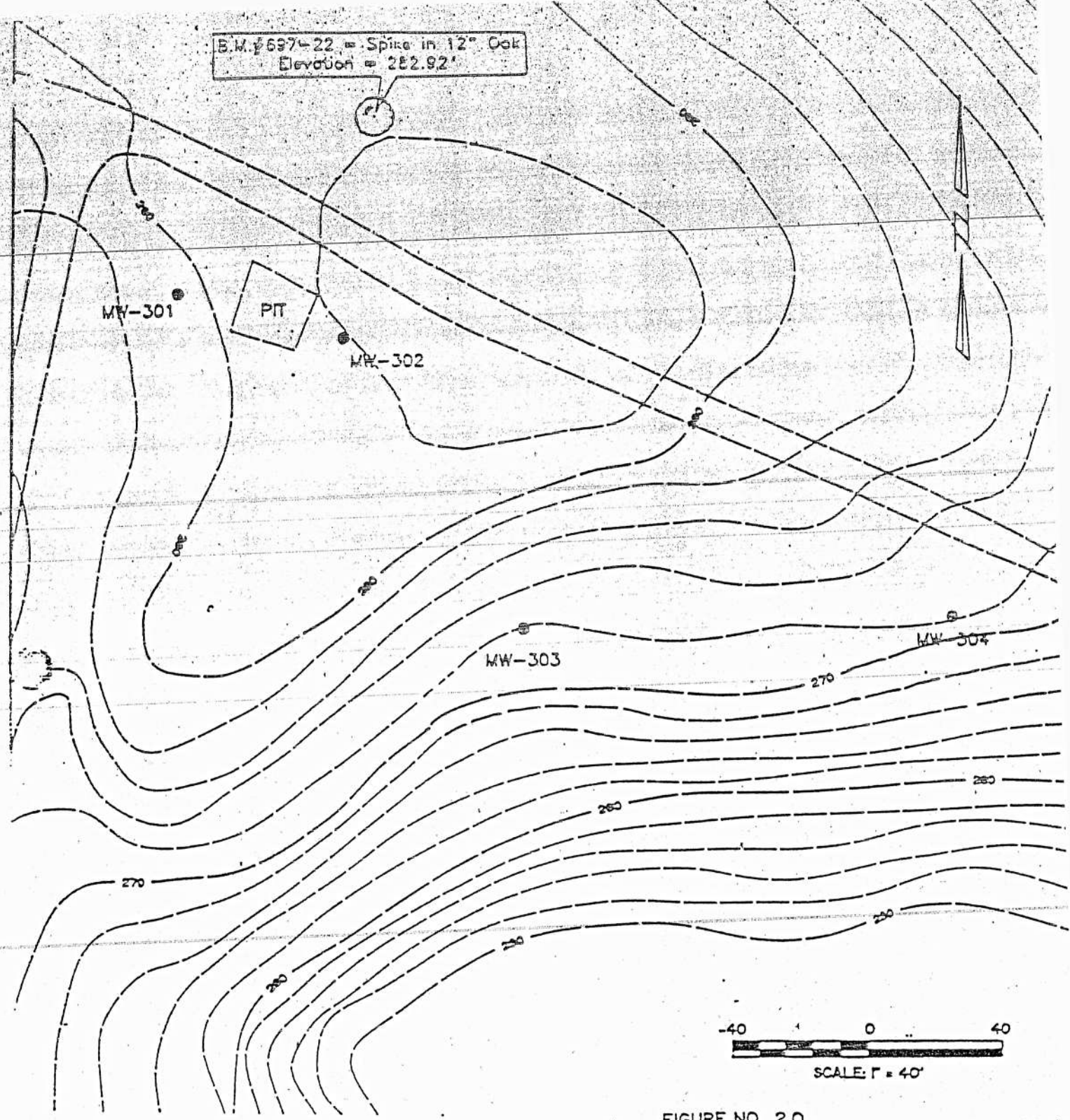
The past investigation by Fuss & O'Neill focused on a very small area, located at the edge of the Hall Farm site. This area was identified by Culbro personnel as the only area where pesticides were disposed in the past at this site. No screening of the area was conducted to determine if other areas of the site were utilized for disposal. Knowledge of where to investigate was based solely on information from the employees interviewed. Investigation to date includes the excavation and removal of the identified contaminated soil, and conducting two groundwater sampling events that were one and a half years apart. 1,2-DCP was found in the 1990 event, but the compound is not one of the reported pesticides disposed at the AOC.

After reviewing the reports on file, further monitoring is warranted at the site. This will determine if seasonal or temporal variations will affect the concentrations of contaminants in the groundwater.

My review only includes the materials concerning the small area of concern noted in the Fuss & O'Neill reports. I can not determine the environmental conditions on any other parts of the site, based on the information on file at the department.

Attachment

B.M. 697-22 = Spike in 12" Oak  
Elevation = 282.92'



**NOTES:**

- 1 TOPOGRAPHY FROM TOWN OF SIMSBURY  
TOPOGRAPHIC MAPPING SHEETS H-4 AND H-5  
DATED: JUNE 1979.
- 2 TOPOGRAPHIC FEATURES, SHOWN HEREON, WERE  
PREPARED IN ACCORDANCE WITH CLASS T-D.

FIGURE NO. 2.0

**FUSS & O'NEILL**  
MANCHESTER, CONNECTICUT

**SITE PLAN**

**CULBRO TOBACCO COMPANY  
HALL FARM DISPOSAL SITE**

HOSKINS ROAD

SIMSBURY, CT

PROJ. NO. 84-255 DATE: APR. 1991 SCALE: 1"=40'