

ADDENDA FOR ECAF

Site: Connecticut Department of Transportation
Higganum Site # 25
Address: 11 Candlewood Hill Road, Higganum, CT
Date: March 26, 2001
HRP #CTD2022.91

Part V.4 Supporting Documents

*Salt Storage and Maintenance Facility Study prepared by Metcalf and Eddy in November 5, 1985.

*Preliminary Test Report Conn DOT Salt Storage and Maintenance Facility Study prepared by Metcalf and Eddy in 1985.

Field Investigation Work Plan for the Higganum Site #25 prepared by Fred C. Hart Associates, Inc. in November 26, 1985.

Supplement to Field Investigation Work Plan for the Higganum Site # 25 prepared by Fred C. Hart Associates, Inc. in June 1986.

Draft Field Investigations Report for the Higganum Site # 25 prepared by Fred C. Hart Associates, Inc. in June 25, 1987.

*Detailed Test Report Conn DOT Salt Storage and Maintenance Facilities Study prepared by Metcalf and Eddy in 1987.

*Water Supply Feasibility Study Businesses and Residence on Candlewood Hill Road Haddam, Connecticut prepared by Metcalf and Eddy in May 1993.

*State of Connecticut Department of Health Services Laboratory Division. Potable Water Reports for the Town of Higganum.

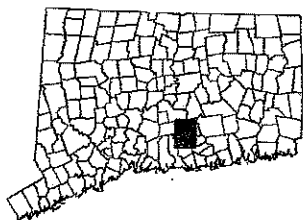
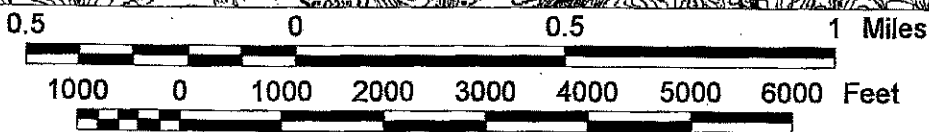
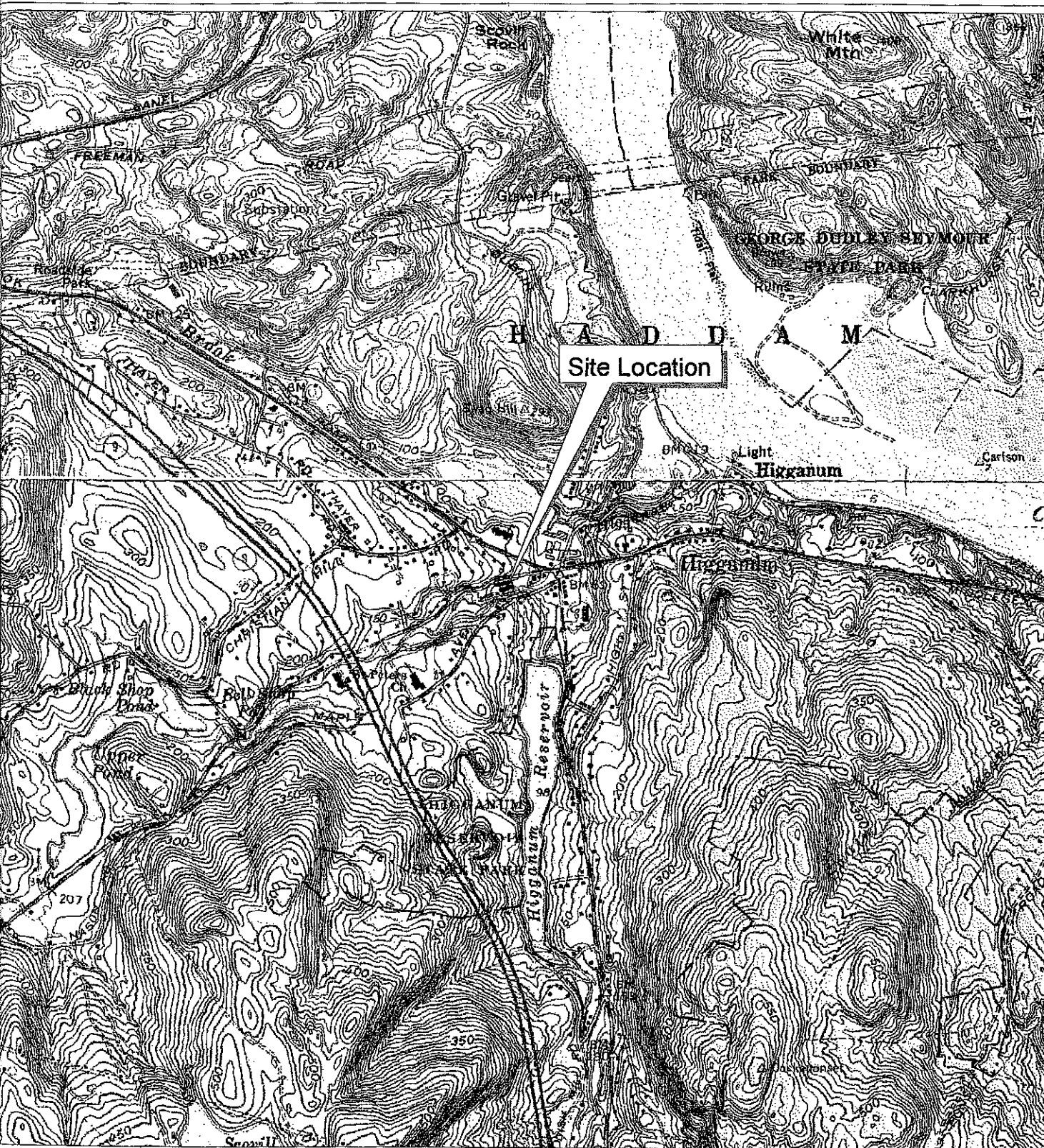
* Environmental Science Corporation Laboratory Reports for Samples obtained at Neal's Cleaners.

* Connecticut State Department of Health Environmental Research Laboratory Results.

+ State of Connecticut Department of Transportation Waste Disposal Questionnaire Form

*Connecticut Department of Environmental Protection Incident Report Oil & Chemical Spills Division.

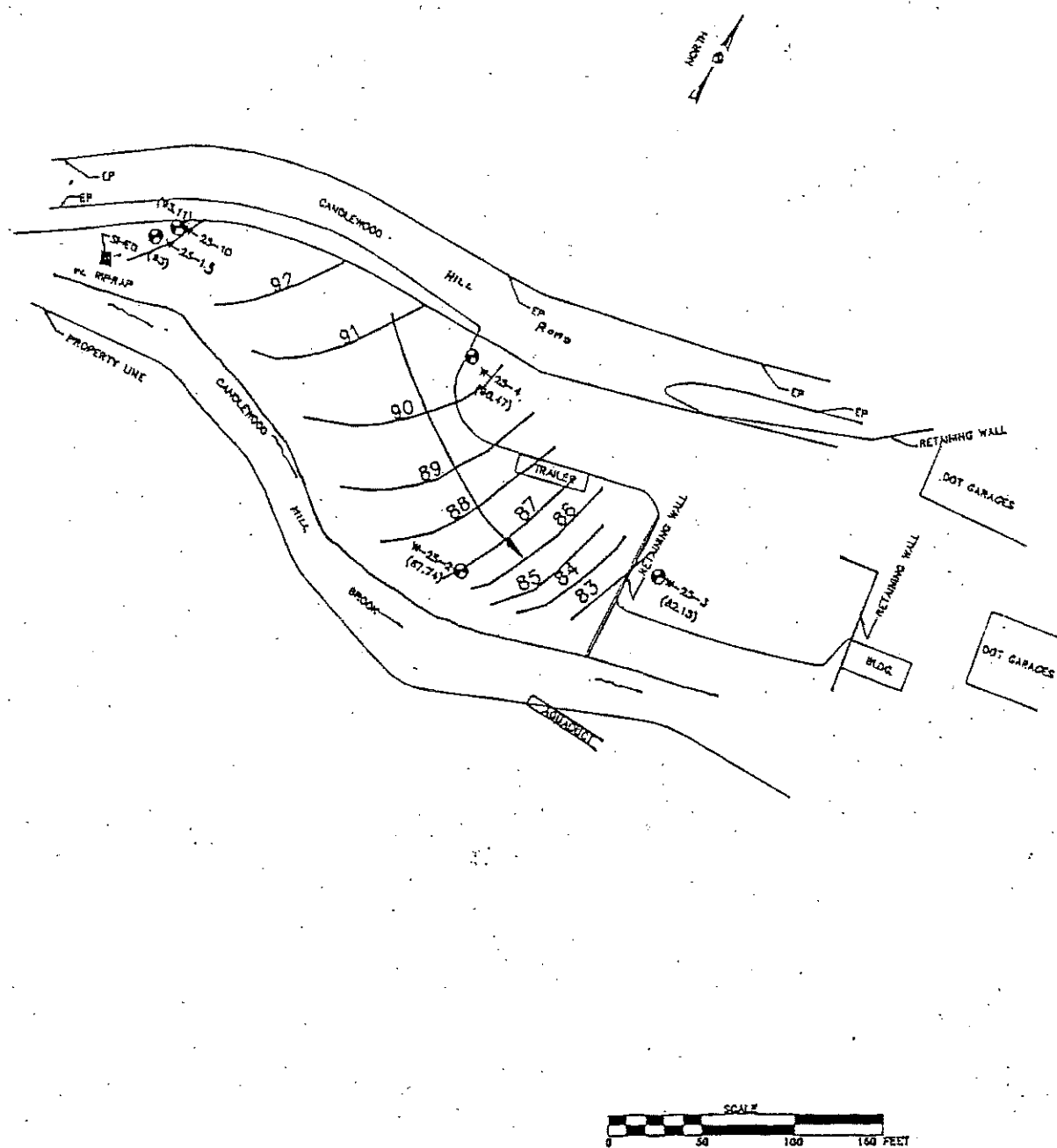
+ State of Connecticut Department of Environmental Protection Underground Storage Facility Notification.



HADDAM, CONN
 N4122.5-W7230J7.5
 1961
 PHOTOREVISED 1971
 AMS 6466 I NE-SERIES V816

Figure 1
Site Location Map
DOT Site #25
11 Candlewood Hill Rd.
Haddam, CT 06441-4202
HRP# CTD2022.91
25 March 02





- LEGEND**
- ⊙ MONITOR WELL LOCATIONS
 - GROUNDWATER FLOW DIRECTION
 - CONTOUR INTERVAL = 1'

FIGURE 6
GROUNDWATER CONTOURS
DOT SITE #25
11 CANDLEWOOD HILL ROAD
HADDAM, CONNECTICUT
 UDD# CTD2022 01

Table 1
DOT Site # 25
HIGGANUM, CONNECTICUT

Soil-SPLP

Lab Sample No.:
 Date:

Parameter	DEP GA PMC (mg/L)	COUNT	MINIMUM	MAXIMUM	AVERAGE	D-16	D-17	D-18	D-19	D-20
						09/02/1986	09/02/1986	09/02/1986	09/02/1986	09/02/1986
Sample Depth (ft.)										
Barium-mg/L	1	2	0.500	0.700	0.600	NA	0.7	0.5	NA	ND
Lead-mg/L	0.015	2	0.110	5.100	2.605	NA		ND	NA	

Key

1 Parameter Detected Below GA PMC
 Parameter Exceeds GA PMC

Notes:

Constituents not listed were not detected in any samples.
 Shaded Cells indicate exceedances of one or more of the listed standards.
 * Chromium DEC standards as shown are for Hexavalent Chromium.

DEP RDEC = CT DEP Residential Direct Exposure Criteria
 DEP ICDEC = CT DEP Industrial/Commercial Direct Exposure Criteria
 DEP GA PMC = CT DEP GA Pollutant Mobility Criteria

NA = Not Submitted for analysis
 NAL = Not analyzed by Laboratory
 NE = Not Established by CT DEP
 mg/kg = milligrams per kilogram
 () = Indicates the stated minimum detectable level exceeds an RSR criteria.

Table 2
DOT Site # 25
HIGGANUM, CONNECTICUT
SOIL SAMPLES
MASS METALS

Soil-3050B

Lab Sample No:
Date:

SB-25-2 (10-12) 12/15/1986 SB-25-2 (16-18) 12/15/1986 SB-25-4 (15-17) 05/20/1987

	DEP RDEC (mg/kg)	DEP ICDEC (mg/kg)	20X DEP GA PMC (mg/kg)	COUNT	MINIMUM	MAXIMUM	AVERAGE			
Sample Depth (ft.)										
Aluminum-mg/kg	NE	NE	NE	2	4,320,000	5,510,000	4,915,000	5510	4320	NA
Arsenic-mg/kg	10	10	1	2	1,870	2,000	1,935	1,870	<5	NA
Barium-mg/kg	4,700	140,000	20	3	6,400	60,000	24,700	6.4	7.7	60
Cadmium-mg/kg	34	1,000	0.1	1	1,000	1,000	1,000	<0.75	<0.75	NA
Calcium-mg/kg	NE	NE	NE	2	267,000	482,000	374,500	267	482	NA
Chromium, Total-mg/kg*	100	100	1	3	2,600	4,000	3,163	2,600	2,600	NA
Cobalt-mg/kg	NE	NE	NE	1	1,160	1,160	1,160	1.16	<0.75	NA
Copper-mg/kg	2,500	76,000	26	2	6,510	6,520	6,565	6.52	6.51	NA
Iron-mg/kg	NE	NE	NE	2	5,740,000	10,100,000	6,420,000	10100	6740	NA
Lead-mg/kg	500	1,000	0.3	2	2,300	14,000	6,150	2,300	<1.5	NA
Magnesium-mg/kg	NE	NE	NE	2	1,680,000	2,090,000	1,885,000	1680	2090	NA
Manganese-mg/kg	NE	NE	NE	2	49,200	70,000	59,100	70	48.2	NA
Mercury-mg/kg	20	610	0.04	1	0.100	0.100	0.100	<0.05	<0.05	NA
Potassium-mg/kg	NE	NE	NE	2	628,000	732,000	680,000	732	628	NA
Selenium-mg/kg	340	10,000	1	1	1,000	1,000	1,000	<0.5	<0.5	1
Silver-mg/kg	340	10,000	0.72	1	2,000	2,000	2,000	<0.75	<0.75	NA
Sodium-mg/kg	NE	NE	NE	2	180,000	398,000	289,000	180	398	NA
Vanadium-mg/kg	470	14,000	1	2	11,000	16,100	13,850	11,000	16,100	NA
Zinc-mg/kg	20,000	610,000	100	2	10,700	18,600	14,650	18.6	10.7	NA

Key

1	Parameter Detected Below Standards
1	Parameter Exceeds Res DEC
1	Parameter Exceeds IC DEC & Res DEC
1	Parameter Exceeds 20X GA PMC
1	Parameter Exceeds Res DEC and 20X GA PMC
1	Parameter Exceeds IC DEC and 20X GA PMC
NA	Parameter Not Analyzed

Mass Data Compared to 20X GA PMC to Identify

Potential Exceedances

Notes:
Shaded Cells indicate exceedances of one or more of the listed standards.
* Chromium DEC standards as shown are for Hexavalent Chromium.

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Table 3
DOT Site # 25
HIGGANUM, CONNECTICUT
SOIL/SEDIMENT SAMPLES
MISCELLANEOUS

Soil-Miscellaneous

								Lab Sample No.:	D-36-S-SD	D-16	D-17	D-18	D-19	D-20	D-21	D-22
								Date:	08/22/1986	08/02/1986	09/02/1986	09/02/1986	09/02/1986	09/02/1986	09/02/1986	09/02/1986
Parameter	DEP RDEC (mg/kg)	DEP ICDEC (mg/kg)	DEP GA PMC (mg/kg)	COUNT	MINIMUM	MAXIMUM	AVERAGE									
Sample Depth (ft.)																
CT ETPH - mg/kg	500	2500	500	4	108,000	10,780,000	2,932,000			NA	NA	106	NA	ND		143
Sodium - mg/kg	NE	NE	NE	4	213,000	1,320,000	556,250		NA	213	281	1320	411	NA	NA	NA
Chloride - mg/kg	NE	NE	NE	4	76,000	141,000	107,250		NA	76	101	141	111	NA	NA	NA

Soil-Pest 8151A and 8081B

								Lab Sample No.:	TP-25-1A	SB-25-2 (10-12)	SB-25-2 (16-18)	SB-25-4
								Date:	04/03/1986	08/07/1986	08/07/1986	04/23/1987
Parameter (mg/kg)	DEP RDEC (mg/kg)	DEP ICDEC (mg/kg)	DEP GA PMC (mg/kg)	COUNT	MINIMUM	MAXIMUM	AVERAGE					
Sample Depth (ft.)												
4,4'-DDD	2.6	24	NE	2	19,000	125,000	72,000		19	125	U	U
Heptachlor Epoxide	0.067	0.63	0.02	2	3,300	85,000	44,150				U	U

Key

1	Parameter Detected Below Standards
1	Parameter Exceeds Res DEC
1	Parameter Exceeds I/C DEC & Res DEC
	Parameter Exceeds GA PMC
	Parameter Exceeds Res DEC and GA PMC
	Parameter Exceeds I/C DEC and GA PMC

Notes:

Shaded Cells Indicate exceedances of one or more of the listed standards.

DEP RDEC = CT DEP Residential Direct Exposure Criteria

DEP ICDEC = CT DEP Industrial/Commercial Direct Exposure Criteria

DEP GA PMC = CT DEP GA Pollutant Mobility Criteria

NA = Not Submitted for analysis

NAL = Not analyzed by Laboratory

NE = Not Established by CT DEP

mg/kg = milligrams per kilogram

ppm = parts per million

**PCBs were not analyzed by a leachability method; therefore, the MDLs and analysis results did not exceed the RSR criteria.

() = Indicates the stated minimum detectable level exceeds an RSR criteria.