State of Vermont

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
Natural Resources Conservation Council

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
Hazardous Materials Management Division
103 South Main Street / West Building
Waterbury, VT 05671-0404
802-244-8702

May 26, 1992

Michael Morissette
Vermont Agency of Transportation
133 Main Street
Montpelier, VT 05633

RE: Results of groundwater sampling at the Enosburg Maintenance Garage (Site #91-1072)

Dear Mr. Morissette:

The Sites Management Section (SMS) has received the results of the groundwater samplings at the above referenced site. The samples were obtained on April 21, 1992, by the Technical Services Section; a copy of the results is enclosed.

MTBE was detected in the samples obtained from MW-1 and MW-2, which are downgradient of the former tank pit. The sample from MW-1 contained < 10 parts per billion (ppb), and the sample from MW-2 contained 12 ppb.

The sample from MW-3, in the former tank pit, contained MTBE at a concentration of 50 ppb. Also detected was benzene (250 ppb), ethylbenzene (15 ppb), xylenes (10 ppb), and total volatile hydrocarbons (1690 ppb).

The samples were also analyzed according to EPA Method 418.1 at Endyne. No contamination was detected in any of the samples.

The SMS recommends that the monitoring wells be sampled on a quarterly basis. They need only be analyzed according to EPA Method 8240. The sampling will be performed by Technical Services and analyzed at the DEC laboratory, with your authorization.

Please contact us with your approval of our recommendation so that we may set up the schedule with Technical Services.

Sincerely,

Charles B. Schwer, Supervisor
Sites Management Section

CBS:CW/longterm/Enosburg.let

MAY 07 1992

DEPARTMENT OF ENVIRONMENTAL CONSERVATION LABORATORY
DATA SHEET METHOD 8240 GC/MS FOR VOLATILE ORGANICS - WATER

Sample Number: 68654
Date Run: 4/24/92
Site: MW1 ENOS
Date Collected: 4/21/92

Analyst: SRL
Dilution Factor: 1

824W: T

		Approximate Detection Limit ug/l	Detected at ug/l
VW07	Vinyl chloride	10	ND
VW08	Chloromethane	10	ND
VW09	Bromomethane	10	ND
VW10	Chloroethane	10	ND
VW11	Trichlorofluoromethane	10	ND
VW12	Acetone	50	ND
VW13	1,1-Dichloroethene	2	ND
VW14	Carbon disulfide	2	ND
VW15	Methylene chloride	2	ND
VW16	Methyl-t-Butylether (MTBE)	10	<10 E
VW17	1,2-Dichloroethene	2	ND
VW18	1,1-Dichloroethane	2	ND
VW19	Vinyl acetate	50	ND
VW20	2-Butanone	50	ND
VW21	Chloroform	2	ND
VW22	1,1,1-Trichloroethane	2	ND
VW23	Carbon tetrachloride	2	ND
VW24	Benzene	2	ND
VW25	1,2-Dichloroethane	2	ND
VW26	Trichloroethene	2	ND
VW27	1,2-Dichloropropane	2	ND
VW28	Bromodichloromethane	2	ND
VW29	4-Methyl-2-pentanone	20	ND
VW30	cis-1,3-Dichloropropene	2	ND
VW31	Toluene	2	ND
VW32	trans-1,3-Dichloropropene	2	ND
VW33	1,1,2-Trichloroethane	2	ND
VW34	2-Hexanone	20	ND
VW35	Tetrachloroethene	2	ND
VW36	Dibromochloromethane	2	ND
VW37	Chlorobenzene	2	ND
VW38	Ethylbenzene	2	ND
VW39	Xylenes	2	ND
VW40	Styrene	2	ND
VW41	Bromoform	2	ND
VW42	1,1,2,2-Tetrachloroethane	2	ND
TVH	Total Volatile Hydrocarbons	100	ND

Remarks:

Surrogate Recoveries:
1,2-Dichloroethane - D4: 100 % D8-Toluene: 104 % 4-BromoFluorobenzene: 102 %

MAY 07 1992

DEPARTMENT OF ENVIRONMENTAL CONSERVATION LABORATORY
DATA SHEET METHOD 8240 GC/MS FOR VOLATILE ORGANICS - WATER

Sample Number: 68655 Analyst: SRL 824W: S
Date Run: 4/27/92 Dilution Factor: 1
Site: MW2 ENOS
Date Collected: 4/21/92

		Approximate Detection Limit ug/l	Detected at ug/l
VW07	Vinyl chloride	10	ND
VW08	Chloromethane	10	ND
VW09	Bromomethane	10	ND
VW10	Chloroethane	10	ND
VW11	Trichlorofluoromethane	10	ND
VW12	Acetone	50	ND
VW13	1,1-Dichloroethene	2	ND
VW14	Carbon disulfide	2	ND
VW15	Methylene chloride	2	ND
VW16	Methyl-t-Butylether (MTBE)	10	12 E
VW17	1,2-Dichloroethene	2	ND
VW18	1,1-Dichloroethane	2	ND
VW19	Vinyl acetate	50	ND
VW20	2-Butanone	50	ND
VW21	Chloroform	2	ND
VW22	1,1,1-Trichloroethane	2	ND
VW23	Carbon tetrachloride	2	ND
VW24	Benzene	2	ND
VW25	1,2-Dichloroethane	2	ND
VW26	Trichloroethene	2	ND
VW27	1,2-Dichloropropane	2	ND
VW28	Bromodichloromethane	2	ND
VW29	4-Methyl-2-pentanone	20	ND
VW30	cis-1,3-Dichloropropene	2	ND
VW31	Toluene	2	ND
VW32	trans-1,3-Dichloropropene	2	ND
VW33	1,1,2-Trichloroethane	2	ND
VW34	2-Hexanone	20	ND
VW35	Tetrachloroethene	2	ND
VW36	Dibromochloromethane	2	ND
VW37	Chlorobenzene	2	ND
VW38	Ethylbenzene	2	ND
VW39	Xylenes	2	ND
VW40	Styrene	2	ND
VW41	Bromoform	2	ND
VW42	1,1,2,2-Tetrachloroethane	2	ND
TVH	Total Volatile Hydrocarbons	100	ND

Remarks:

Surrogate Recoveries:
1,2-Dichloroethane - D4: 104 % D8-Toluene: 100 % 4-BromoFluorobenzene: 98 %

MAY 07 '92

DEPARTMENT OF ENVIRONMENTAL CONSERVATION LABORATORY
DATA SHEET METHOD 8240 GC/MS FOR VOLATILE ORGANICS - WATER

Sample Number: 68656
Date Run: 4/28/92
Site: MW3 ENOS
Date Collected: 4/21/92

Analyst: SRL
Dilution Factor: 5

824W: T

		Approximate Detection Limit ug/l	Detected at ug/l
VW07	Vinyl chloride	250	ND
VW08	Chloromethane	250	ND
VW09	Bromomethane	250	ND
VW10	Chloroethane	250	ND
VW11	Trichlorofluoromethane	250	ND
VW12	Acetone	1250	ND
VW13	1,1-Dichloroethene	50	ND
VW14	Carbon disulfide	50	ND
VW15	Methylene chloride	50	ND
VW16	Methyl-t-Butylether (MTBE)	250	50 E
VW17	1,2-Dichloroethene	50	ND
VW18	1,1-Dichloroethane	50	ND
VW19	Vinyl acetate	1250	ND
VW20	2-Butanone	1250	ND
VW21	Chloroform	50	ND
VW22	1,1,1-Trichloroethane	50	ND
VW23	Carbon tetrachloride	50	ND
VW24	Benzene	50	250
VW25	1,2-Dichloroethane	50	ND
VW26	Trichloroethene	50	ND
VW27	1,2-Dichloropropane	50	ND
VW28	Bromodichloromethane	50	ND
VW29	4-Methyl-2-pentanone	500	ND
VW30	cis-1,3-Dichloropropene	50	ND
VW31	Toluene	50	ND
VW32	trans-1,3-Dichloropropene	50	ND
VW33	1,1,2-Trichloroethane	50	ND
VW34	2-Hexanone	500	ND
VW35	Tetrachloroethene	50	ND
VW36	Dibromochloromethane	50	ND
VW37	Chlorobenzene	50	ND
VW38	Ethylbenzene	50	15
VW39	Xylenes	50	10
VW40	Styrene	50	ND
VW41	Bromoform	50	ND
VW42	1,1,2,2-Tetrachloroethane	50	ND
TVH	Total Volatile Hydrocarbons	2500	1690 E

Remarks:

Surrogate Recoveries:
1,2-Dichloroethane - D4: 102 % D8-Toluene: 100 % 4-BromoFluorobenzene: 104 %

MAY 07 15

DEPARTMENT OF ENVIRONMENTAL CONSERVATION LABORATORY
DATA SHEET METHOD 8240 GC/MS FOR VOLATILE ORGANICS - WATER

Sample Number: 68657
Date Run: 4/28/92
Site: MW3 Du B
Date Collected: 4/21/92

Analyst: SRL
Dilution Factor: 5

824W: T

		Approximate Detection Limit ug/l	Detected at ug/l
VW07	Vinyl chloride	50	ND
VW08	Chloromethane	50	ND
VW09	Bromomethane	50	ND
VW10	Chloroethane	50	ND
VW11	Trichlorofluoromethane	50	ND
VW12	Acetone	250	ND
VW13	1,1-Dichloroethene	10	ND
VW14	Carbon disulfide	10	ND
VW15	Methylene chloride	10	ND
VW16	Methyl-t-Butylether (MTBE)	50	50 E
VW17	1,2-Dichloroethene	10	ND
VW18	1,1-Dichloroethane	10	ND
VW19	Vinyl acetate	250	ND
VW20	2-Butanone	250	ND
VW21	Chloroform	10	ND
VW22	1,1,1-Trichloroethane	10	ND
VW23	Carbon tetrachloride	10	ND
VW24	Benzene	10	270
VW25	1,2-Dichloroethane	10	ND
VW26	Trichloroethene	10	ND
VW27	1,2-Dichloropropane	10	ND
VW28	Bromodichloromethane	10	ND
VW29	4-Methyl-2-pentanone	100	ND
VW30	cis-1,3-Dichloropropene	10	ND
VW31	Toluene	10	ND
VW32	trans-1,3-Dichloropropene	10	ND
VW33	1,1,2-Trichloroethane	10	ND
VW34	2-Hexanone	100	ND
VW35	Tetrachloroethene	10	ND
VW36	Dibromochloromethane	10	ND
VW37	Chlorobenzene	10	ND
VW38	Ethylbenzene	10	15
VW39	Xylenes	10	10
VW40	Styrene	10	ND
VW41	Bromoform	10	ND
VW42	1,1,2,2-Tetrachloroethane	10	ND
TVH	Total Volatile Hydrocarbons	500	1820 E

Remarks:

Surrogate Recoveries:
1,2-Dichloroethane - D4: 102 % D8-Toluene: 100 % 4-BromoFluorobenzene: 102 %

MAY 07 1997

DEPARTMENT OF ENVIRONMENTAL CONSERVATION LABORATORY
DATA SHEET METHOD 8240 GC/MS FOR VOLATILE ORGANICS - WATER

Sample Number: 68653 Analyst: SRL 824W: Z
Date Run: 4/24/92 Dilution Factor: 1
Site: TB
Date Collected: 4/21/92

		Approximate Detection Limit ug/l	Detected at ug/l
VW07	Vinyl chloride	10	ND
VW08	Chloromethane	10	ND
VW09	Bromomethane	10	ND
VW10	Chloroethane	10	ND
VW11	Trichlorofluoromethane	10	ND
VW12	Acetone	50	ND
VW13	1,1-Dichloroethene	2	ND
VW14	Carbon disulfide	2	ND
VW15	Methylene chloride	2	ND
VW16	Methyl-t-Butylether (MTBE)	10	ND
VW17	1,2-Dichloroethene	2	ND
VW18	1,1-Dichloroethane	2	ND
VW19	Vinyl acetate	50	ND
VW20	2-Butanone	50	ND
VW21	Chloroform	2	ND
VW22	1,1,1-Trichloroethane	2	ND
VW23	Carbon tetrachloride	2	ND
VW24	Benzene	2	ND
VW25	1,2-Dichloroethane	2	ND
VW26	Trichloroethene	2	ND
VW27	1,2-Dichloropropane	2	ND
VW28	Bromodichloromethane	2	ND
VW29	4-Methyl-2-pentanone	20	ND
VW30	cis-1,3-Dichloropropene	2	ND
VW31	Toluene	2	ND
VW32	trans-1,3-Dichloropropene	2	ND
VW33	1,1,2-Trichloroethane	2	ND
VW34	2-Hexanone	20	ND
VW35	Tetrachloroethene	2	ND
VW36	Dibromochloromethane	2	ND
VW37	Chlorobenzene	2	ND
VW38	Ethylbenzene	2	ND
VW39	Xylenes	2	ND
VW40	Styrene	2	ND
VW41	Bromoform	2	ND
VW42	1,1,2,2-Tetrachloroethane	2	ND
TVH	Total Volatile Hydrocarbons	100	ND

Remarks:

Surrogate Recoveries:
1,2-Dichloroethane - D4: 102 % D8-Toluene: 104 % 4-BromoFluorobenzene: 100 %

MAY 1 2 1992

ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

TOTAL HYDROCARBONS - EPA METHOD 418.1

CLIENT: VT ANR
REPORT DATE: May 8, 1992
PROJECT NAME: A.O.T. Sites
PROJECT CODE: AOTS7425
DATE SAMPLED: Not Indicated
DATE RECEIVED: April 21, 1992
DATE ANALYZED: May 6, 1992
SAMPLER: Marc Roy

Reference number:	Concentration (mg/L)[1]
29,991	ND[2]
29,992	ND
29,993	ND
29,994	ND
29,995	ND
29,996	ND

Sample ID:

29,991: MW-1 ENOS
29,992: MW-2 ENOS
29,993: MW-3 ENOS
29,994: MW-3 DUPENOS
29,995: MW-2 ST. AL
29,996: MW-3 ST. AL

Notes:

1 Method detection limit is 0.8 ppm
2 None detected

Reviewed by _____