10/17/05 Reviewed and found complete. Mike O'Brien

MAG910104

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General site information. Please provide the following information about the site:

a) Name of **facility/site**: Callahan Company		**Facility/site** address:		
Location of **facility/site**: longitude: 71-16-06 latitude: 42-07-08	Facility SIC code(s): 5169	Street: 18 Industrial Road		
b) Name of **facility/site owner:** Above		Town: Walpole		
Email address of owner: JLennon@calchem.com		State: MA	Zip: 02081	County: USA
Telephone no.of facility/site **owner**: 508-668-9000				
Fax no. of facility/site **owner**: 508-668-6584		**Owner** is (check one): 1. Federal____ 2. State/Tribal____ 3. Private_X___ 4. other, if so, describe:		
Address of **owner** (if different from site): Above				
Street: Above				
Town: Above	State: Above	Zip: Above	County: Above	
c) Legal name of **operator**: Philip D. McBain		**Operator** telephone no: 781-341-1777 [Ext 133]		
		Operator fax no.: 781-341-6246	**Operator** email: Phil_McBain@cynenv.com	
Operator contact name and title: Philip D. McBain, Senior Project Manager / Licensed Site Professional				
Address of **operator** (if different from owner):	Street: 100 Tosca Drive			
Town: Stoughton,	State: MA	Zip: 02072-0119	County: USA	

d) Check "yes" or "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes___ No X, if "yes," number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes___ No X, if "yes," date and tracking #:
3. Is the discharge a "new discharge"as defined by 40 CFR 122.2? Yes___ No X
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes X No__

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes X No___ If "yes," please list: 1. site identification # assigned by the state of NH or MA: 3-24474 2. permit or license # assigned: NA 3. state agency contact information: name, location, and telephone number: MADEP-NERO, One Winter Street, Boston, MA 02108. 978-682-5237 [Ext 397]	f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y___ N_X_, if Y, number: 2. phase I or II construction storm water general permit? Y___ N_X_, if Y, number: 3. individual NPDES permit? Y___ N_X_, if Y, number: 4. any other water quality related permit? Y___ N_X_, if Y, number:

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage: Contaminated groundwater removed from select monitoring wells will be stored in two Frac tanks, treated with peroxide, and discharge through a particulate filter to a roadway drainage basin. Treatment will be conduct in a batch approach, with testing conducted to confirm the suitability of water prior to discharging.

b) Provide the following information about each discharge:	1) Number of discharge points: 1	2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft3/s)? Max. flow 0.055 Average flow 0.055 Is maximum flow a **design value**? Y___ N_X_ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. Discharge to be conducted in a batch treatment approach using a discharge pump rated for a maximum pumping rate of 25-gpm.

3) Latitude and longitude of each discharge within 100 feet: pt.1:long.71-16-09 lat.42-07-08; pt.2: long._____ lat._____; pt.3: long._____ lat._____;
pt.4:long._____ lat._____; pt.5: long._____ lat._____; pt.6:long._____ lat._____; pt.7: long._____ lat._____; pt.8:long._____ lat._____; etc.

4) If hydrostatic testing, total volume of the discharge (gals): NA	5) Is the discharge intermittent X or seasonal_____? Is discharge ongoing Yes ____ No X ?

c) Expected dates of discharge (mm/dd/yy): start 10/07/05 end 10/07/06

d) Please attach a line drawing or flow schematic showing water flow through the facility including: See Attached Figures
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for **all** of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only X	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants	Petroleum with Other Contaminants	Listed Contaminated Sites X	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	**Believe Absent**	**Believe Present**	**# of Samples (1 min-imum)**	**Type of Sample (e.g., grab)**	**Analytical Method Used (method #)**	**Minimum Level (ML) of Test Method**	**Maximum daily value**		**Avg. daily value**	
							concentration (ug/l)	**mass (kg)**	**concentration (ug/l)**	**mass (kg)**
1. Total Suspended Solids	X									
2. Total Residual Chlorine	X									
3. Total Petroleum Hydrocarbons	X									
4. Cyanide	X									
5. Benzene		X	11	Grab	8260	< 1	4.3			
6. Toluene		X	11	Grab	8260	< 1	5550			
7. Ethylbenzene		X	11	Grab	8260	< 1	499			
8. (m,p,o) Xylenes		X	11	Grab	8260	< 1	3340			
9. Total BTEX[4]		X	11	Grab	8260	< 1	9279.9			

[4]BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide [5] (1,2- Dibromo-methane)	X									
11. Methyl-tert-Butyl Ether (MtBE)		X	11	Grab	8260	< 1	10500			
12. tert-Butyl Alcohol (TBA)	X									
13. tert-Amyl Methyl Ether (TAME)	X									
14. Naphthalene		X	11	Grab	8260	< 1	23.9			
15. Carbon Tetra-chloride	X		11	Grab	8260	< 1	12.2			
16. 1,4 Dichlorobenzene	X		11	Grab	8260	< 1	< 1			
17. 1,2 Dichlorobenzene	X		11	Grab	8260	< 1	< 1			
18. 1,3 Dichlorobenzene	X		11	Grab	8260	< 1	< 1			
19. 1,1 Dichloroethane		X	11	Grab	8260	< 1	23.7			
20. 1,2 Dichloroethane	X		11	Grab	8260	< 1	< 1			
21. 1,1 Dichloroethylene		X	11	Grab	8260	< 1	2.3			
22. cis-1,2 Dichloro-ethylene		X	11	Grab	8260	< 1	1820			
23. Dichloromethane (Methylene Chloride)		X	11	Grab	8260	< 1	1440			
24. Tetrachloroethylene		X	11	Grab	8260	< 1	6.4			

[5] EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	X		11	Grab	8260	< 1	< 1			
26. 1,1,2 Trichloroethane	X		11	Grab	8260	< 1	< 1			
27. Trichloroethylene		X	11	Grab	8260	< 1	10.2			
28. Vinyl Chloride		X	11	Grab	8260	< 1	184			
29. Acetone		X	11	Grab	8260	< 20	3,850,000			
30. 1,4 Dioxane	X									
31. Total Phenols	X									
32. Pentachlorophenol	X									
33. Total Phthalates [6] (Phthalate esthers)	X									
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	X									
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	X									
a. Benzo(a) Anthracene	X									
b. Benzo(a) Pyrene	X									
c. Benzo(b)Fluoranthene	X									
d. Benzo(k) Fluoranthene	X									
e. Chrysene	X									

[6] The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	X									
g. Indeno(1,2,3-cd) Pyrene	X									
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	X									
h. Acenaphthene	X									
i. Acenaphthylene	X									
j. Anthracene	X									
k. Benzo(ghi) Perylene	X									
l. Fluoranthene	X									
m. Fluorene	X									
n. Naphthalene-		X	11	Grab	8260	< 1	23.9			
o. Phenanthrene	X									
p. Pyrene	X									
37. Total Polychlorinated Biphenyls (PCBs)	X									
38. Antimony	X									
39. Arsenic	X									
40. Cadmium	X									
41. Chromium III	X									
42. Chromium VI	X									

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper	X									
44. Lead	X									
45. Mercury	X									
46. Nickel	X									
47. Selenium	X									
48. Silver	X									
49. Zinc	X									
50. Iron	X									
Other (describe):										

c) For discharges where **metals** are believed present, please fill out the following: Not Applicable

Step 1: Do any of the metals in the influent have a **reasonable potential** to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y____ N____	If yes, which metals?
Step 2: For any metals which have **reasonable potential** to exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals:_____ DF: _____	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y____ N____ If "Yes," list which metals:

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank x	Air stripper	Oil/water separator	Equalization tanks	Bag filter X	GAC filter
	Chlorination	Dechlorination	Other (please describe): Hydrogen Peroxide Treatment of water contained in Frac Tanks			
c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate**(s) (gallons per minute) of the treatment system: Average flow rate of discharge 25 Maximum flow rate of treatment system 25 Design flow rate of treatment system 25						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): Hydrogen Peroxide used to treat water stored in Frac Tanks						

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct____	Within facility__	Storm drain x	River/brook____	Wetlands____	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: water stored in the Frac tanks will be treated & discharged to a roadway drainage system which is located at the facility entry and discharges to Cedar Swamp. Cedar Swamp feeds the Neponset River.						
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: See Attached Figures 1. For multiple discharges, number the discharges sequentially. 2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.						
d) Provide the state water quality classification of the receiving water Class B ,						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 1.63 cfs Please attach any calculation sheets used to support stream flow and dilution calculations.						
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes____ No X If yes, for which pollutant(s)? Is there a TMDL? Yes____ No X If yes, for which pollutant(s)?						

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes X No____
Has any consultation with the federal services been completed ? No X or is consultation underway? X No____
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one):
a "no jeopardy" opinion? _____or written concurrence____ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat? Yes

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes_____ No X Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes_____ No X

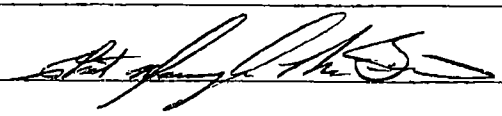
7. Supplemental information. :

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name: Callahan Company / Response Contractor - Cyn Environmental Services

Operator signature: Philip D. McBain 

Title: Senior Project Manager / Licensed Site Professional

Date: 18 October 2005

TABLE 2

CHRONOLOGICAL SUMMARY OF VOCS IN GROUNDWATER

Callahan Company, Walpole, Massachusetts MADEP RTN3-24474

			KETONES				CHLORINATED ALIPHATICS										
LOCATION ID	SAMPLING DATE	METHOD	2-Butanone (MEK)	Acetone	4-Methyl-2-pentanone (MIBK)	2-Hexanone (MBK)	Methylene Chloride	Chlorobenzene	Tetrachloroethene (PCE)	Trichloroethene (TCE)	1,1,1-Trichloroethane(1,1,1 TCA)	1,1-Dichloroethene (1,1 DCE)	1,1-Dichloroethane (1,1 DCA)	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Carbon Disulfide
GW-1 STD			350	3000	350	NA	NA	100	5	5	200	5	70	100	70	2	NA
GW-2 STD			50000	50000	50000	NA	NA	1000	3000	300	4000	20	9000	20000	30000	2	NA
GW-3 STD			50000	50000	50000	NA	NA	500	5000	20000	50000	50000	50000	50000	50000	40000	NA
MW-1	12/10/2004	8260	<10.0	62.7	<10.0	<10.0	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
	2/18/2005	8260	<10.0	1550	<10.0	<10.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4/6/05	8260	< 50	960	< 50	< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/9/05	8260	< 10	< 20	< 10	< 10	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
	5/23/05	8260	< 10	< 20	< 10	< 10	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
	6/6/05	8260	< 10	< 20	< 10	< 10	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
	6/20/05	8260	< 10	< 20	< 10	< 10	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
	7/5/05	8260	< 10	< 20	< 10	< 10	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
	7/15/05	8260	< 10	< 20	< 10	< 10	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
	8/18/05	8260	< 10	< 20	< 10	< 10	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Frequency of Detection			0|10	3|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10
Frequency of Exceedance			0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10
MW-2	12/10/04	8260	<10.0	77.6	<10.0	<10.0	<10.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.3
	2/2/05	8260	37	2080	<10	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
	4/6/05	8260	**24000**	**2000000**	< 25	< 25	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	4/28/05	8260	**21000**	**432000**	< 10	< 10	< 10	1.6	< 1	< 1	< 1	< 1	< 1	< 1	1.9	< 1	< 5
	5/16/05	8260	**28500**	**2850000**	< 10000	< 10000	< 10000	1.6	< 1	< 1	< 1	< 1	< 1	< 1	1.9	< 1	< 5
	5/23/05	8260	< 100000	**3500000**	< 100000	< 100000	< 100000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 50000
	6/13/05	8260	< 100000	**1920000**	< 100000	< 100000	< 100000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 50000
	7/5/05	8260	< 100000	**1740000**	< 100000	< 100000	< 100000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 50000
	7/15/05	8260	< 100000	**1660000**	< 100000	< 100000	< 100000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 50000
	8/1/05	8260	< 100000	**1850000**	< 100000	< 100000	< 100000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 50000
	8/18/05	8260	< 100000	**1060000**	< 100000	< 100000	< 100000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 50000
Frequency of Detection			4|11	11|11	0|11	0|11	0|11	3|11	0|11	0|11	0|11	0|11	0|11	0|11	2|11	0|11	1|11
Frequency of Exceedance			3|11	9|11	0|11	0|11	0|11	0|11	0|11	0|11	0|11	0|11	0|11	0|11	0|11	0|11	0|11
MW-10	2/2/05	8260	<200	<400	<200	<200	<200	25.4	<20	<20	<20	<20	<20	<20	**694**	**48**	<100
	5/23/05	8260	< 200	627	< 200	< 200	< 200	50.4	< 20	< 20	< 20	< 20	< 20	< 20	**1210**	**40.6**	< 20
	8/18/05	8260	< 10	< 20	< 10	< 10	< 10	1.9	2.7	7.4	< 1	< 1	< 1	1	59.3	1.8	< 5
Frequency of Detection			0|3	1|3	0|3	0|3	0|3	3|3	1|3	1|3	0|3	0|3	0|3	0|3	3|3	3|3	0|3
Frequency of Exceedance			0|3	0|3	0|3	0|3	0|3	0|3	0|3	1|3	0|3	0|3	0|3	0|3	2|3	2|3	0|3

TABLE 2

CHRONOLOGICAL SUMMARY OF VOCS IN GROUNDWATER

Callahan Company, Walpole, Massachusetts MADEP RTN3-24474

LOCATION ID	SAMPLING DATE	METHOD	KETONES				CHLORINATED ALIPHATICS										
			2-Butanone (MEK)	Acetone	4-Methyl-2-pantanone (MIBK)	2-Hexanone (MBK)	Methylene Chloride	Chlorobenzene	Tetrachloroethene (PCE)	Trichloroethene (TCE)	1,1,1-Trichloroethane(1,1,1 TCA)	1,1-Dichloroethene (1,1 DCE)	1,1-Dichloroethane (1,1 DCA)	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Carbon Disulfide
GW-1 STD			350	3000	350	NA	NA	100	5	5	200	5	70	100	70	2	NA
GW-2 STD			50000	50000	50000	NA	NA	1000	3000	300	4000	20	9000	20000	30000	2	NA
GW-3 STD			50000	50000	50000	NA	NA	500	5000	20000	50000	50000	50000	50000	50000	40000	NA
MW-11	12/10/04	8260	<10.0	38.1	<10.0	<10.0	<10.0	<1.0	4.1	5.8	<1.0	<1.0	<1.0	<1.0	16.0	1.2	<5.0
Frequency of Detection			0|1	1|1	0|1	0|1	0|1	1|1	1|1	1|1	0|1	0|1	0|1	0|1	1|1	1|1	0|1
Frequency of Exceedance			0|1	0|1	0|1	0|1	0|1	0|1	0|1	1|1	0|1	0|1	0|1	0|1	0|1	0|1	0|1
MW-13	12/10/04	8260	6310	205000	51.9	17.4	31.6	341	1.0	5.1	<1.0	2.3	23.7	13.1	1370	184	12.2
	2/2/05	8260	17900	1090000	<10,000	<10,000	<10,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	1340	<1,000	<5,000
	4/6/05	8260	1400	20000	<25	<25	330	29	<5	<5	<5	<5	<5	<5	27	<5	<5
	4/28/05	8260	5650	41500	15.9	<10	1440	252	3.2	2.1	<1	<1	2.2	3	448	7.6	<5
	5/16/05	8260	14100	94200	<1000	<1000	<1000	981	<100	<100	<100	<100	<100	<100	1820	161	<500
	5/23/05	8260	14800	125000	<1000	<1000	3020	1670	<100	<100	<100	<100	<100	<100	1620	<100	<500
	6/13/05	8260	8000	60300	<5000	<5000	<5000	985	<500	<500	<500	<500	<500	<500	1370	<500	<2500
	7/5/05	8260	13800	98200	<10000	<10000	<10000	<1000	<1000	<1000	<1000	<1000	<1000	<1000	1220	<1000	<5000
	7/15/05	8260	5640	110000	<5000	<5000	<5000	<500	<500	<500	<500	<500	<500	<500	710	<500	<2500
	8/1/05	8260	12400	116000	<10000	<10000	<10000	<1000	<1000	<1000	<1000	<1000	<1000	<1000	1330	<1000	<5000
	8/18/05	8260	13800	139000	<10000	<10000	<10000	<1000	<1000	<1000	<1000	<1000	<1000	<1000	1170	<1000	<5000
Frequency of Detection			11|11	11|11	2|11	1|11	3|11	6|11	0|11	2|11	0|11	1|11	2|11	2|11	11|11	3|11	1|11
Frequency of Exceedance			11|11	11|11	0|11	0|11	0|11	4|11	0|11	1|11	0|11	0|11	0|11	0|11	10|11	3|11	0|11
MW-14	2/14/05	8240	13	<10	<10	<10	0.5	1.7	<0.5	1.1	<0.5	0.5	16.8	3.6	19.8	1.4	<0.5
	4/6/05	8240	1100	17000	<25	<25	<5	16	<5	<5	<5	<5	<5	<5	59	21	<5
	4/28/05	8240	1350	19200	11.6	<10	<10	16.1	<1	<1	<1	<1	6.9	2	57.5	16.4	<5
	5/16/05	8240	<1000	12800	<1000	<1000	<1000	<100	<100	<100	<100	<100	<100	<100	<100	<100	<500
	5/23/05	8240	1460	21900	<1000	<1000	<1000	<100	<100	<100	<100	<100	<100	<100	<100	<100	<500
	6/13/05	8240	12.8	69.5	<10	<10	<10	3.1	1.6	1.4	<1	<1	12.9	1.6	14	1.1	<5
	7/5/05	8240	<10	<20	<10	<10	<10	<1	1.4	<1	<1	<1	13.1	1.4	10.9	<1	<5
	7/15/05	8240	27.1	112	<10	<10	<10	6.9	<1	<1	<1	<1	6.2	2.8	7.8	1.8	<5
	8/1/05	8240	<10	<20	<10	<10	<10	1	1.2	1.4	<1	<1	14.4	1.3	12.5	<1	<5
	8/18/05	8240	<10	<20	<10	<10	<10	1	1.2	1.4	<1	<1	9.2	<1	9.4	<1	<5
Frequency of Detection			6|10	6|10	1|10	0|10	1|10	7|10	4|10	4|10	0|10	1|10	7|10	6|10	8|10	5|10	0|10
Frequency of Exceedance			3|10	4|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	2|10	0|10

TABLE 2

CHRONOLOGICAL SUMMARY OF VOCS IN GROUNDWATER

Callahan Company, Walpole, Massachusetts MADEP RTN3-24474

			KETONES				CHLORINATED ALIPHATICS										
LOCATION ID	SAMPLING DATE	METHOD	2-Butanone (MEK)	Acetone	4-Methyl-2-pentanone (MIBK)	2-Hexanone (MBK)	Methylene Chloride	Chlorobenzene	Tetrachloroethene (PCE)	Trichloroethene (TCE)	1,1,1-Trichloroethane(1,1,1 TCA)	1,1-Dichloroethene (1,1 DCE)	1,1-Dichloroethane (1,1 DCA)	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Carbon Disulfide
GW-1 STD			350	3000	350	NA	NA	100	5	5	200	5	70	100	70	2	NA
GW-2 STD			50000	50000	50000	NA	NA	1000	3000	300	4000	20	9000	20000	30000	2	NA
GW-3 STD			50000	50000	50000	NA	NA	500	5000	20000	50000	50000	50000	50000	50000	40000	NA
MW-15	2/2/05	8260	199	36100	<50	<50	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25
	4/6/05	8260	< 25	6300	< 25	< 25	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/23/05	8260	< 10	< 20	< 10	< 10	< 10	< 1	< 1	1	< 1	< 1	< 1	< 1	1.1	< 1	< 5
	8/18/05	8260	< 10	< 20	< 10	< 10	< 10	< 1	< 1	1	< 1	< 1	1.1	< 1	1.1	< 1	< 5
Frequency of Detection			1|4	2|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	1|4	0|4	2|4	0|4	0|4
Frequency of Exceedance			0|4	2|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4
MW-16	2/2/05	8260	<200	<400	<200	<200	<200	<20	<20	<20	<20	<20	82.2	<20	82.2	<20	<100
	5/23/05	8260	< 10	< 20	< 10	< 10	< 10	< 1	6.4	10.2	< 1	< 1	4.6	< 1	< 1	11.2	< 1
	8/18/05	8260	< 10	< 20	< 10	< 10	< 10	< 1	3.4	4	< 1	< 1	6.2	< 1	28.2	7.6	< 5
Frequency of Detection			0|3	0|3	0|3	0|3	0|3	0|3	2|3	2|3	0|3	0|3	3|3	0|3	2|3	2|3	0|3
Frequency of Exceedance			0|3	0|3	0|3	0|3	0|3	0|3	1|3	1|3	0|3	0|3	1|3	0|3	1|3	2|3	0|3
GZ-3	2/2/05	8260	<10	52.5	<10	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
	5/23/05	8260	< 10	< 20	< 10	< 10	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
	8/15/05	8260	< 10	< 20	< 10	< 10	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Frequency of Detection			0|3	1|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3
Frequency of Exceedance			0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3
GZ-5	2/2/05	8260	<5000	1230000	<5000	<5000	<5000	<500	<500	<500	<500	<500	<500	<500	<500	<500	<2500
	4/6/05	8260	130	40000	< 25	< 25	< 5	32	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	4/28/05	8260	241	122000	24.6	< 10	< 10	35.9	< 1	< 1	< 1	< 1	< 1	< 1	1.4	< 1	< 5
	5/16/05	8260	< 10000	440000	< 10000	< 10000	< 10000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000
	5/23/05	8260	< 20000	425000	< 20000	< 20000	< 20000	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000
	6/13/05	8260	< 10000	275000	< 10000	< 10000	< 10000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 5000
	7/5/05	8260	342	160000	< 200	< 200	< 200	63	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 100
	7/15/05	8260	< 12500	115000	< 12500	< 12500	< 12500	< 1250	< 1250	< 1250	< 1250	< 1250	< 1250	< 1250	< 1250	< 1250	< 2500
	8/1/05	8260	< 10000	85000	< 10000	< 10000	< 10000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 2000
	8/18/05	8260	< 2000	22400	< 2000	< 2000	< 2000	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 1000
Frequency of Detection			3|10	10|10	1|10	0|10	0|10	3|10	0|10	0|10	0|10	0|10	0|10	0|10	1|10	0|10	0|10
Frequency of Exceedance			0|10	10|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10

TABLE 2

CHRONOLOGICAL SUMMARY OF VOCS IN GROUNDWATER

Callahan Company, Walpole, Massachusetts MADEP RTN3-24474

LOCATION ID	SAMPLING DATE	METHOD	KETONES				CHLORINATED ALIPHATICS										
			2-Butanone (MEK)	Acetone	4-Methyl-2-pantanone (MIBK)	2-Hexanone (MBK)	Methylene Chloride	Chlorobenzene	Tetrachloroethene (PCE)	Trichloroethene (TCE)	1,1,1-Trichloroethane(1,1,1 TCA)	1,1-Dichloroethene (1,1 DCE)	1,1-Dichloroethane (1,1 DCA)	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Carbon Disulfide
GW-1 STD			350	3000	350	NA	NA	100	5	5	200	5	70	100	70	2	NA
GW-2 STD			50000	50000	50000	NA	NA	1000	3000	300	4000	20	9000	20000	30000	2	NA
GW-3 STD			50000	50000	50000	NA	NA	500	5000	20000	50000	50000	50000	50000	50000	40000	NA
GZ-8S	2/2/05	8260	1470	20100	<500	<500	<500	<50	<50	<50	<50	<50	<50	<50	<50	<50	<250
	4/6/05	8260	2700	26000	<25	<25	<5	23	<5	<5	<5	<5	<5	<5	64	<5	<5
	4/28/05	8260	813	4930	<10	<10	<10	37.5	<1	<1	<1	<1	1.3	1.2	50.9	17.5	<5
	5/16/05	8260	<100	705	<100	<100	<100	27.3	<10	<10	<10	<10	<10	<10	14.1	15.2	<50
	5/23/05	8260	69.1	232	<50	<50	<50	24.9	<5	<5	<5	<5	<5	<5	8	7.4	<25
	6/13/05	8260	377	1850	<100	<100	<100	38.9	<10	<10	<10	<10	<10	<10	<10	<10	<50
	7/5/05	8260	<50	<100	<50	<50	<50	32.6	<5	<5	<5	<5	<5	<5	<5	<5	<25
	7/15/05	8260	<10	67.8	<10	<10	<10	12.1	<1	<1	<1	<1	<1	1.5	<1	<1	<5
	8/1/05	8260	<10	<20	<10	<10	<10	17.2	<1	<1	<1	<1	1	1.5	1.4	<1	<5
	8/18/05	8260	<10	<20	<10	<10	<10	9.9	<1	<1	<1	<1	1	1.2	1.4	<1	<5
Frequency of Detection			5|10	7|10	0|10	0|10	0|10	9|10	0|10	0|10	0|10	0|10	3|10	4|10	6|10	3|10	0|10
Frequency of Exceedance			4|10	3|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	3|10	0|10
GZ-8D	2/2/05	8260	<10	<20	<10	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	1.7	<1.0	<5.0
	5/23/05	8260	<10	<20	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
	8/18/05	8260	<10	<20	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
Frequency of Detection			0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	1|3	0|3	1|3	0|3	0|3
Frequency of Exceedance			0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3
GZ-10	2/5/05	8260	<50	32100	<50	<50	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25
	4/6/05	8260	<25	2200	<25	<25	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	5/23/05	8260	<10	2110	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	6.2	1	<5
	8/18/05	8260	<10	<20	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	10.4	1.7	<5
Frequency of Detection			0|4	3|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	2|4	2|4	0|4
Frequency of Exceedance			0|4	1|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4
GZ-11	2/2/05	8260	<50	<100	<50	<50	<50	17.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	525	68.6	<25
	4/6/05	8260	<50	460	<50	<50	<10	8	<10	<10	<10	<10	<10	<10	460	15	<10
	5/23/05	8260	<50	<100	<50	<50	<50	20.3	<5	<5	<5	<5	<5	<5	715	14.9	<25
	8/18/05	8260	<50	<100	<50	<50	<50	10.2	<5	<5	<5	<5	<5	<5	518	16	<25
Frequency of Detection			0|4	1|4	0|4	0|4	0|4	4|4	0|4	0|4	0|4	0|4	0|4	0|4	4|4	4|4	0|4
Frequency of Exceedance			0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	0|4	4|4	4|4	0|4

TABLE 2

CHRONOLOGICAL SUMMARY OF VOCS IN GROUNDWATER

Callahan Company, Walpole, Massachusetts MADEP RTN3-24474

			KETONES				CHLORINATED ALIPHATICS										
LOCATION ID	SAMPLING DATE	METHOD	2-Butanone (MEK)	Acetone	4-Methyl-2-pantanone (MIBK)	2-Hexanone (MBK)	Methylene Chloride	Chlorobenzene	Tetrachloroethene (PCE)	Trichloroethene (TCE)	1,1,1-Trichloroethane(1,1,1 TCA)	1,1-Dichloroethene (1,1 DCE)	1,1-Dichloroethane (1,1 DCA)	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Carbon Disulfide
GW-1 STD			350	3000	350	NA	NA	100	5	5	200	5	70	100	70	2	NA
GW-2 STD			50000	50000	50000	NA	NA	1000	3000	300	4000	20	9000	20000	30000	2	NA
GW-3 STD			50000	50000	50000	NA	NA	500	5000	20000	50000	50000	50000	50000	50000	40000	NA
P-1	2/2/5	8260	<10	<20	<10	<10	<10	<1.0	10.2	8	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<5.0
	5/23/05	8260	<10	<20	<10	<10	<10	<1.0	9.6	7.5	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<5.0
	8/18/05	8260	<10	<20	<10	<10	<10	<1	8.7	5.8	<1	<1	<1	<1	<1	<1.0	<5
Frequency of Detection			0|3	0|3	0|3	0|3	0|3	0|3	3|3	3|3	0|3	0|3	1|3	0|3	2|3	0|3	0|3
Frequency of Exceedance			0|3	0|3	0|3	0|3	0|3	0|3	3|3	3|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3
RW / Lower Swale Well	4/28/05	8240	75.2	8490	<10	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	<0.5	<0.5
	5/9/05	8260	<1000	16900	<1000	<1000	<1000	<100	<100	<100	<100	<100	<100	<100	<100	<100	<500
	5/23/05	8260	<100	1950	<100	<100	<100	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50
	6/6/05	8260	<1000	9880	<1000	<1000	<1000	<100	<100	<100	<100	<100	<100	<100	<100	<100	<500
	6/20/05	8260	<10	<20	<10	<10	<10	1	<1	<1	<1	<1	<1	<1	1.1	<1	<5
	7/5/05	8260	<10	<20	<10	<10	<10	1	<1	<1	<1	<1	<1	<1	<1	<1	<5
	8/18/05	8260	<10	<10	<10	<10	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Frequency of Detection			1|7	4|7	0|7	0|7	0|7	2|7	7|7	7|7	0|7	0|7	1|7	0|7	2|7	0|7	0|7
Frequency of Exceedance			0|7	0|7	0|7	0|7	0|7	0|7	7|7	7|7	0|7	0|7	0|7	0|7	0|7	0|7	0|7
CW-100	5/23/05	8260	55.9	191	<10	<10	<10	16.7	<1	<1	<1	<1	<1	<1	14.2	7.6	<5
	8/18/05	8260	<10	<20	<10	<10	<10	3.7	<1	<1	<1	<1	<1	<1	2	<1	<5
Frequency of Detection			1|2	1|2	0|2	0|2	0|2	2|2	0|2	0|2	0|2	0|2	0|2	0|2	2|2	1|2	0|2
Frequency of Exceedance			0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2
CW-101	5/23/05	8260	113	16500	16.6	<10	<10	4	<1	<1	<1	<1	<1	<1	6.8	2.9	<5
	8/18/05	8260	<10	<20	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	1.1	<1	<5
Frequency of Detection			1|2	1|2	1|2	0|2	0|2	1|2	0|2	0|2	0|2	0|2	0|2	0|2	2|2	1|2	0|2
Frequency of Exceedance			0|2	1|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2
CW-102	5/23/05	8260	12.4	21.6	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
	8/18/05	8260	<10	<20	<10	<10	<10	3.7	<1	<1	<1	<1	<1	<1	2	<1	<5
Frequency of Detection			1|2	1|2	0|2	0|2	0|2	1|2	0|2	0|2	0|2	0|2	0|2	0|2	1|2	0|2	0|2
Frequency of Exceedance			0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2

TABLE 2, Continued

CHRONOLOGICAL SUMMARY OF VOCS IN GROUNDWATER

Callahan Company, Walpole, Massachusetts MADEP RTN3-24474

LOCATION ID	SAMPLING DATE	METHOD	AROMATICS												
			n-Butylbenzene	sec-Butylbenzene	Isopropylbenzene	4-Isopropyltoluene	Naphthalene	n-Propylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butyl ether (MtBE)
GW-1 STD			NA	NA	NA	NA	20	NA	NA	NA	5	1000	700	10000	70
GW-2 STD			NA	NA	NA	NA	6000	NA	NA	NA	2000	6000	30000	6000	50000
GW-3 STD			NA	NA	NA	NA	6000	NA	NA	NA	7000	50000	4000	50000	50000
MW-1	12/10/04	8260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0
	2/18/05	8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4/6/05	8260	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/9/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/23/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	6/6/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	6/20/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	7/5/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	7/15/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	8/18/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Frequency of Detection			0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10
Frequency of Exceedance			0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10
MW-2	12/10/04	8260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0
	2/2/05	8260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.6	2.5	<1.0
	4/6/05	8260	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	670	< 5	< 5	< 5
	4/28/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	696	1.9	14.1	< 1
	5/16/05	8260	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	1490	< 1000	< 1000	< 1000
	5/23/05	8260	< 100000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000
	6/13/05	8260	< 100000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000
	7/5/05	8260	< 100000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000
	7/15/05	8260	< 100000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000
	8/1/05	8260	< 100000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000
	8/18/05	8260	< 100000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000	< 10000
Frequency of Detection			0 | 11	0 | 11	0 | 11	0 | 11	0 | 11	0 | 11	0 | 11	0 | 11	0 | 11	3 | 11	2 | 11	2 | 11	0 | 11
Frequency of Exceedance			0 | 11	0 | 11	0 | 11	0 | 11	0 | 11	0 | 11	0 | 11	0 | 11	0 | 11	1 | 11	0 | 11	0 | 11	0 | 11
MW-10	2/2/05	8260	<20	<20	<20	<20	<20	<20	<20	<20	<20	1800	23.8	26.8	<20
	5/23/05	8260	< 20	< 20	< 20	< 20	< 20	< 20	43.6	< 20	< 20	4250	45.8	138.2	< 20
	8/18/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	2.4	< 1	< 1	< 1	1.9	1.8	< 1
Frequency of Detection			0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	2 | 3	0 | 3	0 | 3	2 | 3	3 | 3	3 | 3	0 | 3
Frequency of Exceedance			0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	2 | 3	0 | 3	0 | 3	0 | 3

TABLE 2, Continued

CHRONOLOGICAL SUMMARY OF VOCS IN GROUNDWATER

Callahan Company, Walpole, Massachusetts MADEP RTN3-24474

LOCATION ID	SAMPLING DATE	METHOD	AROMATICS												
			n-Butylbenzene	sec-Butylbenzene	Isopropylbenzene	4-Isopropyltoluene	Naphthalene	n-Propylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butyl ether (MtBE)
GW-1 STD			NA	NA	NA	NA	20	NA	NA	NA	5	1000	700	10000	70
GW-2 STD			NA	NA	NA	NA	6000	NA	NA	NA	2000	6000	30000	6000	50000
GW-3 STD			NA	NA	NA	NA	6000	NA	NA	NA	7000	50000	4000	50000	50000
MW-11	12/10/04	8260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0
Frequency of Detection			0|1	0|1	0|1	0|1	0|1	0|1	0|1	0|1	0|1	0|1	0|1	0|1	0|1
Frequency of Exceedance			0|1	0|1	0|1	0|1	0|1	0|1	0|1	0|1	0|1	0|1	0|1	0|1	0|1
MW-13	12/10/04	8260	7	4.1	17.6	5.5	101	23.9	171	60.5	1.9	5550	388	3340	1.0
	2/2/05	8260	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	4230	<1,000	<3,000	<1,000
	4/6/05	8260	< 5	< 5	< 5	< 5	< 5	< 5	6	26	< 5	120	7	64	< 5
	4/28/05	8260	< 1	< 1	3	1.7	< 1	3.6	34.4	21.9	< 1	1130	120	478	180
	5/16/05	8260	< 100	< 100	< 100	< 100	< 100	< 100	109	< 100	< 100	4360	456	2830	< 100
	5/23/05	8260	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	3040	499	2967	< 100
	6/13/05	8260	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	3020	< 500	2110	< 500
	7/5/05	8260	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	3010	< 1000	< 1000	< 1000
	7/15/05	8260	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	2960	< 500	< 500	< 500
	8/1/05	8260	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	4970	< 1000	< 1000	10500
	8/18/05	8260	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	2700	< 1000	< 1000	< 1000
Frequency of Detection			1|11	1|11	2|11	2|11	1|11	2|11	4|11	3|11	1|11	11|11	5|11	6|11	3|11
Frequency of Exceedance			0|11	0|11	0|11	0|11	1|11	0|11	0|11	0|11	0|11	10|11	0|11	0|11	2|11
MW-14	2/14/05	8240	<0.5	0.9	5.9	<0.5	<0.5	<0.5	1.6	0.5	3	8.9	7.1	27	23.9
	4/6/05	8240	< 5	< 5	< 5	< 5	< 5	< 5	12	6	< 5	730	32	210	9
	4/28/05	8240	< 1	< 1	4.9	1.6	< 1	2.3	17.4	8.6	2.6	571	43.8	266.3	12.9
	5/16/05	8240	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	788	< 100	< 100	< 100
	5/23/05	8240	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	700	< 100	208	< 100
	6/13/05	8240	< 1	< 1	4.4	< 1	< 1	< 1	2.4	1.3	4.3	116	6.5	44.4	29.7
	7/5/05	8240	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	4.8	27.2
	7/15/05	8240	< 1	< 1	4	< 1	< 1	1.1	8	2.6	2.4	48	23.4	104.1	16
	8/1/05	8240	< 1	< 1	2.7	< 1	< 1	< 1	< 1	< 1	3.6	1.8	1.5	8.2	26.3
	8/18/05	8240	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	28.7
Frequency of Detection			0|10	1|10	5|10	0|10	0|10	2|10	5|10	5|10	5|10	8|10	6|10	8|10	8|10
Frequency of Exceedance			0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10	0|10

TABLE 2, Continued

CHRONOLOGICAL SUMMARY OF VOCS IN GROUNDWATER

Callahan Company, Walpole, Massachusetts MADEP RTN3-24474

LOCATION ID	SAMPLING DATE	METHOD	AROMATICS												
			n-Butylbenzene	sec-Butylbenzene	Isopropylbenzene	4-Isopropyltoluene	Naphthalene	n-Propylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butyl ether (MtBE)
GW-1 STD			NA	NA	NA	NA	20	NA	NA	NA	5	1000	700	10000	70
GW-2 STD			NA	NA	NA	NA	6000	NA	NA	NA	2000	6000	30000	6000	50000
GW-3 STD			NA	NA	NA	NA	6000	NA	NA	NA	7000	50000	4000	50000	50000
MW-15	2/2/05	8260	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<15	<5.0
	4/6/05	8260	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/23/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	8/18/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Frequency of Detection			0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4
Frequency of Exceedance			0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4
MW-16	2/2/05	8260	<20	<20	<20	32	<20	<20	<20	<20	<20	1510	37.6	598	35.4
	5/23/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	153	1.9	< 1	9.1
	8/18/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3.9	< 1	4.9	
Frequency of Detection			0 | 3	0 | 3	0 | 3	1 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	2 | 3	3 | 3	1 | 3	3 | 3
Frequency of Exceedance			0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	1 | 3	0 | 3	0 | 3	3 | 3
GZ-3	2/2/05	8260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0
	5/23/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	8/15/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Frequency of Detection			0 | 3	0 | 3	0 | 3	1 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3
Frequency of Exceedance			0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3
GZ-5	2/2/05	8260	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<1500	<500
	4/6/05	8260	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	6	5	12	< 5
	4/28/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	2	< 1	< 1	22	8	18.4	< 1
	5/16/05	8260	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000
	5/23/05	8260	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000
	6/13/05	8260	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000
	7/5/05	8260	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	83.2	< 20	< 20	< 20
	7/15/05	8260	< 1250	< 1250	< 1250	< 1250	< 1250	< 1250	< 1250	< 1250	< 1250	< 1250	< 1250	< 1250	< 1250
	8/1/05	8260	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000
	8/18/05	8260	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200
Frequency of Detection			0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	3 | 10	2 | 10	2 | 10	0 | 10
Frequency of Exceedance			0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10

TABLE 2, Continued

CHRONOLOGICAL SUMMARY OF VOCS IN GROUNDWATER

Callahan Company, Walpole, Massachusetts MADEP RTN3-24474

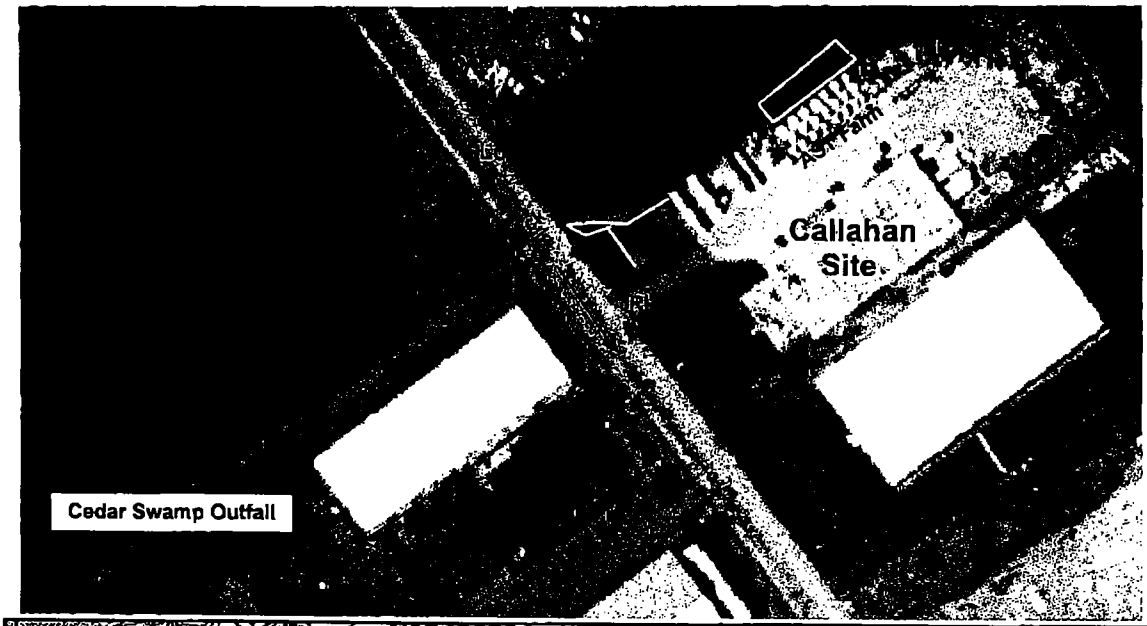
LOCATION ID	SAMPLING DATE	METHOD	AROMATICS												
			n-Butylbenzene	sec-Butylbenzene	Isopropylbenzene	4-Isopropyltoluene	Naphthalene	n-Propylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butyl ether (MtBE)
GW-1 STD			NA	NA	NA	NA	20	NA	NA	NA	5	1000	700	10000	70
GW-2 STD			NA	NA	NA	NA	6000	NA	NA	NA	2000	6000	30000	6000	50000
GW-3 STD			NA	NA	NA	NA	6000	NA	NA	NA	7000	50000	4000	50000	50000
GZ-8S	2/2/05	8260	<50	<50	<50	<50	<50	<50	<50	<50	<50	212	<50	<150	<50
	4/6/05	8260	< 5	5	< 5	< 5	< 5	< 5	6	< 5	< 5	460	23	140	< 5
	4/28/05	8260	< 1	< 1	1.7	< 1	< 1	1.4	13.7	7	< 1	424	37.5	234.2	< 1
	5/16/05	8260	< 10	< 10	< 10	< 10	< 10	< 10	12.5	< 10	< 10	403	26.5	161.1	< 10
	5/23/05	8260	< 5	< 5	< 5	< 5	< 5	< 5	10.3	5.2	< 5	356	23.3	151.3	< 5
	6/13/05	8260	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	549	31.5	206	< 10
	7/5/05	8260	< 5	< 5	< 5	< 5	< 5	< 5	9.4	5.2	< 5	445	28.6	197.8	< 5
	7/15/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	0.4	1.5	< 1	26.4	9.7	42.9	< 1
	8/1/05	8260	< 1	< 1	1.2	< 1	< 1	< 1	6.8	< 1	< 1	1.6	13.8	26.4	8.6
	8/18/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	2.7	< 1	< 1	< 1	4.6	5.5	< 1
Frequency of Detection			0 | 10	1 | 10	2 | 10	0 | 10	0 | 10	1 | 10	8 | 10	4 | 10	0 | 10	9 | 10	9 | 10	9 | 10	1 | 10
Frequency of Exceedance			0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10	0 | 10
GZ-8D	2/2/05	8260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0
	5/23/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	23.4
	8/18/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Frequency of Detection			0 | 3	0 | 3	0 | 3	1 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	1 | 3
Frequency of Exceedance			0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3	0 | 3
GZ-10	2/5/05	8260	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<15	<5.0
	2/5/05	8260	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/23/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	8/18/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Frequency of Detection			0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4
Frequency of Exceedance			0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4
GZ-11	2/2/05	8260	<5.0	<5.0	6.1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	22.1	<5.0	<15	<5.0
	4/6/05	8260	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	23	< 10	< 10	< 10
	5/23/05	8260	< 5	< 5	5.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	8/18/05	8260	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Frequency of Detection			0 | 4	0 | 4	3 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4
Frequency of Exceedance			0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4	0 | 4

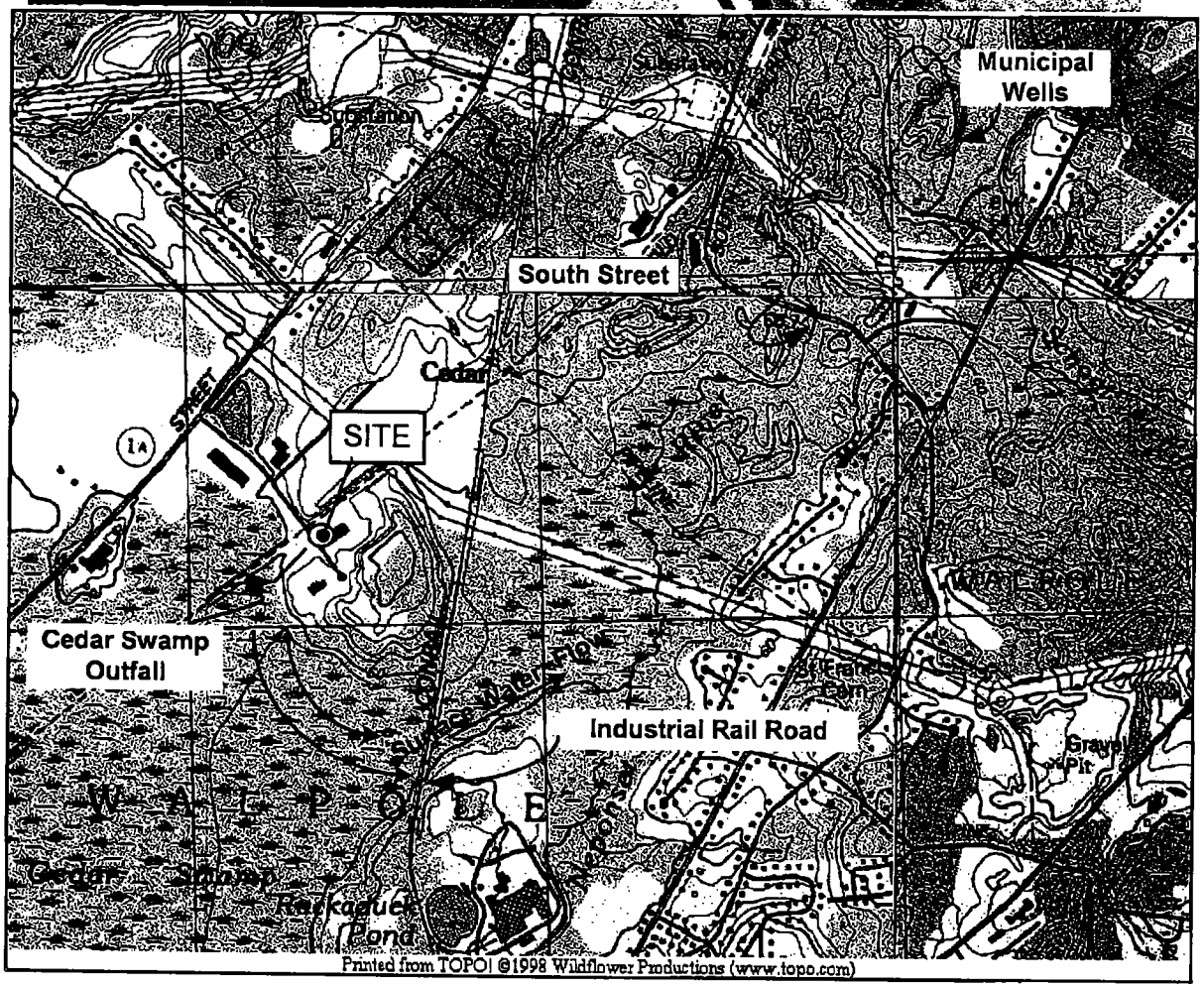
TABLE 2, Continued

CHRONOLOGICAL SUMMARY OF VOCS IN GROUNDWATER

Callahan Company, Walpole, Massachusetts MADEP RTN3-24474

LOCATION ID	SAMPLING DATE	METHOD	AROMATICS												
			n-Butylbenzene	sec-Butylbenzene	Isopropylbenzene	4-Isopropyltoluene	Naphthalene	n-Propylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butyl ether (MtBE)
GW-1 STD			NA	NA	NA	NA	20	NA	NA	NA	5	1000	700	10000	70
GW-2 STD			NA	NA	NA	NA	6000	NA	NA	NA	2000	6000	30000	6000	50000
GW-3 STD			NA	NA	NA	NA	6000	NA	NA	NA	7000	50000	4000	50000	50000
P-1	2/2/5	8260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0
	5/23/05	8260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<1.0
	5/23/05	8260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	<1.0
Frequency of Detection			0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3
Frequency of Exceedance			0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3	0|3
RW / Lower Swale Well	4/28/05	8240	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.3	< 0.5	< 0.5	< 0.5
	5/9/05	8260	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
	5/23/05	8260	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	6/6/05	8260	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
	6/20/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.3	< 1	< 1	< 1	< 1	< 1
	7/5/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	8/18/05	8260	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Frequency of Detection			0|7	0|7	0|7	0|7	0|7	0|7	0|7	1|7	0|7	1|7	0|7	0|7	0|7
Frequency of Exceedance			0|7	0|7	0|7	0|7	0|7	0|7	0|7	0|7	0|7	0|7	0|7	0|7	0|7
CW-100	5/23/05	8260	< 1	< 1	< 1	< 1	7	< 1	4.8	2.9	< 1	251	14.7	98.5	< 1
	8/18/05	8260	< 1	< 1	< 1	< 1	1.4	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Frequency of Detection			0|2	0|2	0|2	0|2	2|2	0|2	1|2	1|2	0|2	1|2	1|2	1|2	0|2
Frequency of Exceedance			0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2
CW-101	5/23/05	8260	< 1	< 1	< 1	< 1	1	< 1	2.3	< 1	< 1	2.2	2.7	3.6	< 1
	8/18/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Frequency of Detection			0|2	0|2	0|2	0|2	1|2	0|2	1|2	0|2	0|2	1|2	1|2	1|2	0|2
Frequency of Exceedance			0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2
CW-102	5/23/05	8260	< 1	< 1	< 1	< 1	5.5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.7
	8/18/05	8260	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Frequency of Detection			0|2	0|2	0|2	0|2	1|2	0|2	0|2	0|2	0|2	0|2	0|2	1|2	1|2
Frequency of Exceedance			0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2	0|2

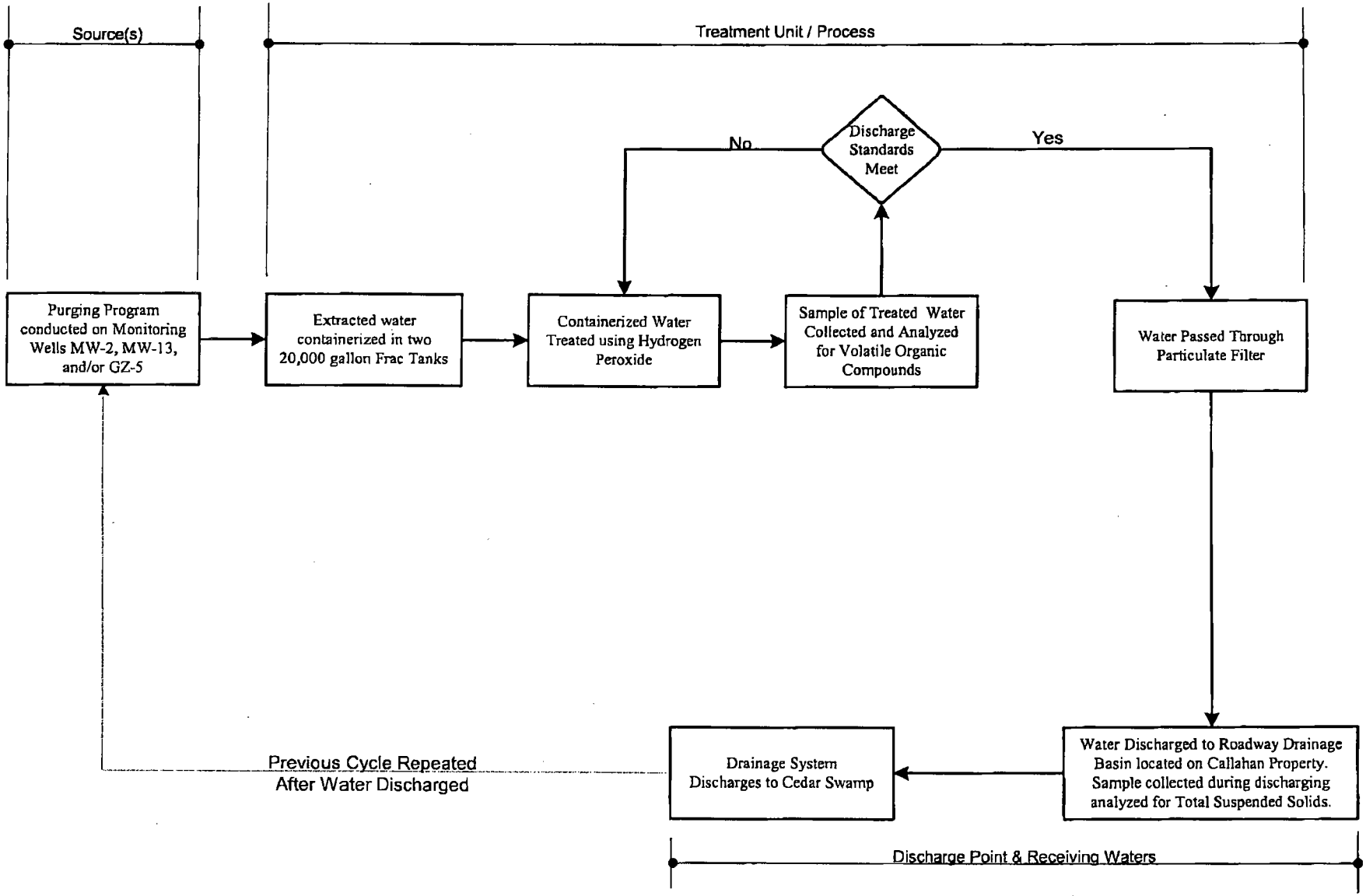




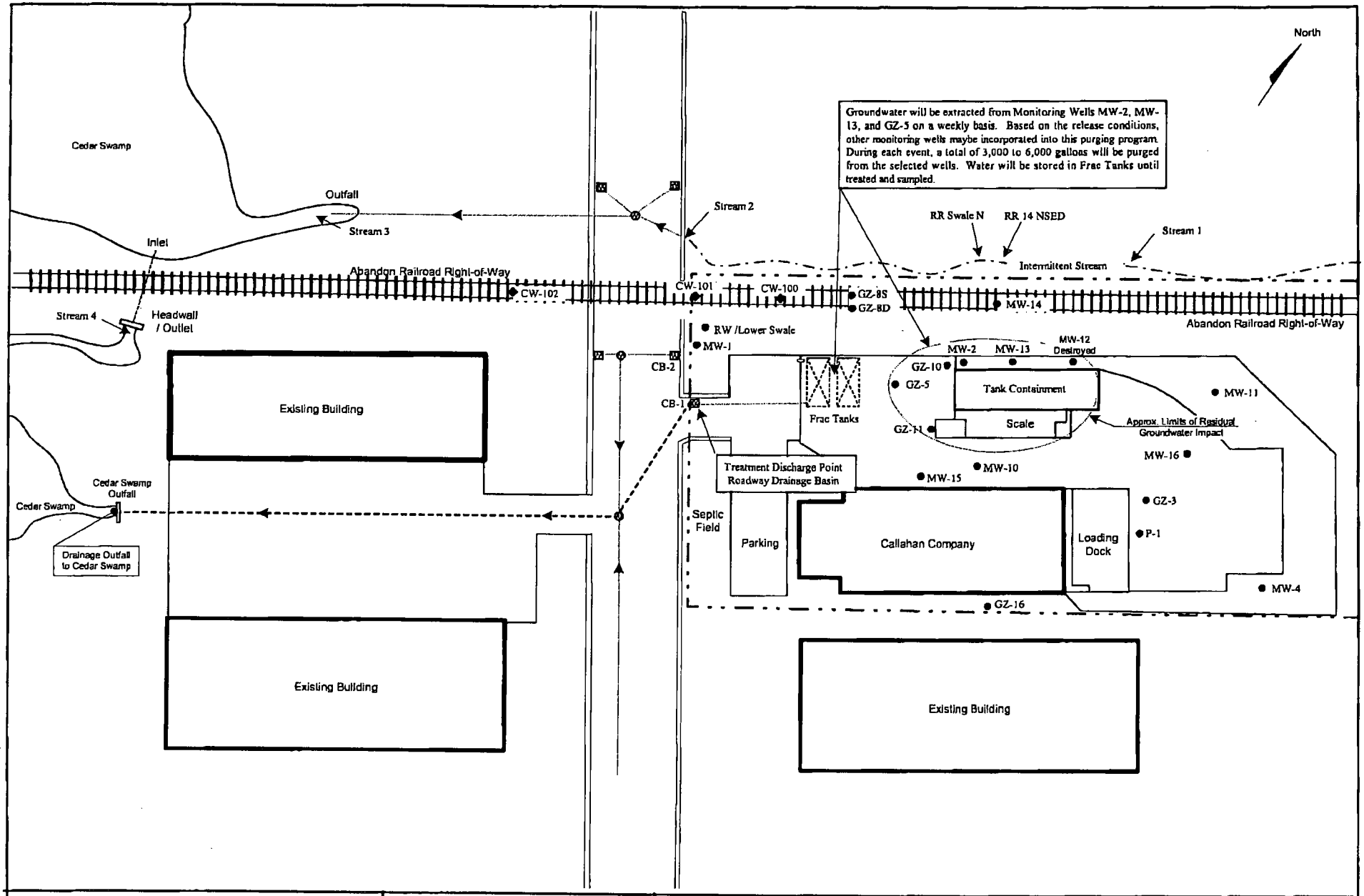
Cyn Environmental Services
100 Tosca Drive, Stoughton, Massachusetts 02072

Site Locus
Callahan Company - 18 Industrial Road
Walpole, Massachusetts

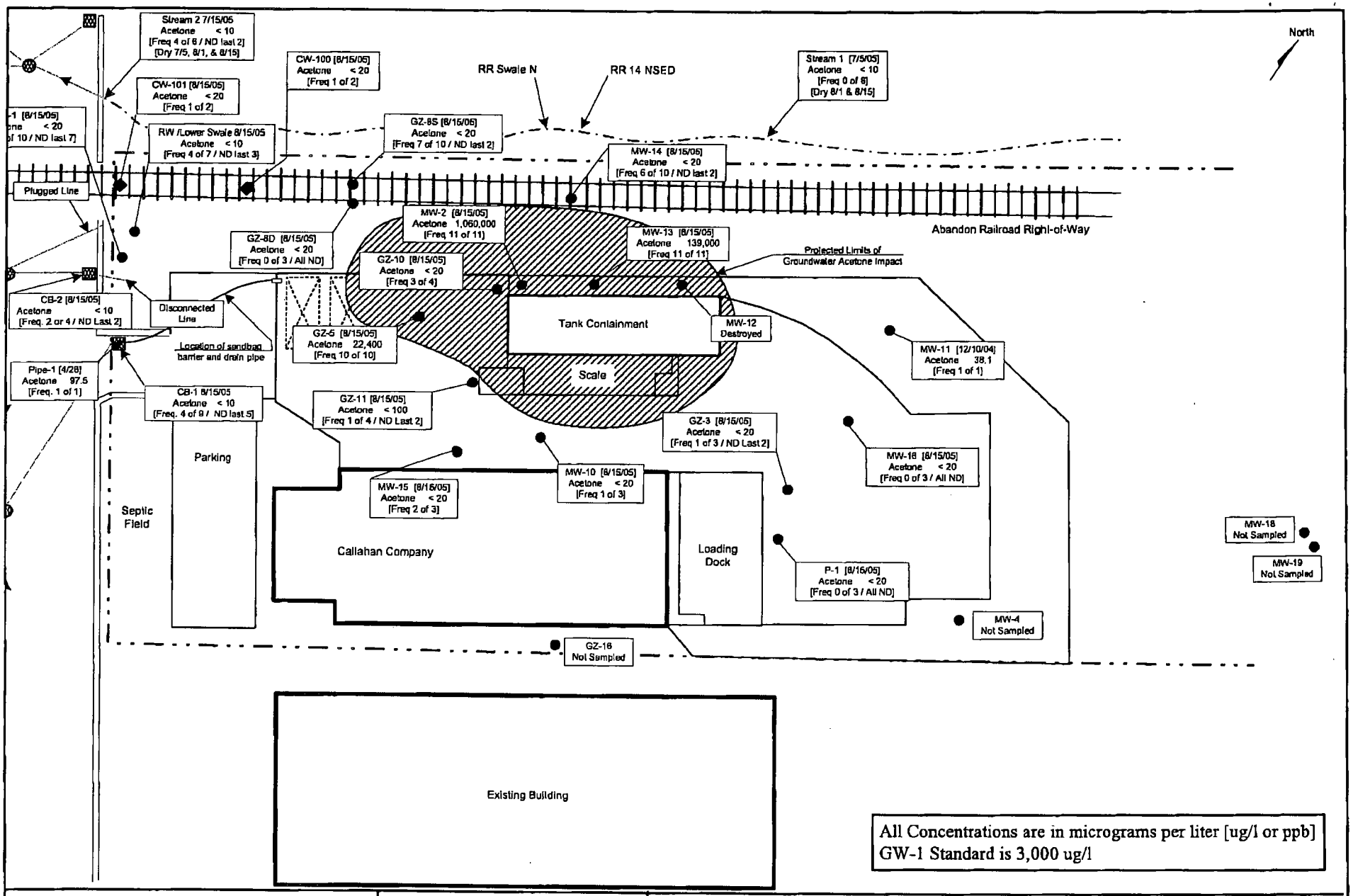
Drawn:	CEK	Scale:	1:25,000
MADEP RTN:	3-24474	Project #:	204585-00-ST
Date:	01/14/05	Figure #:	1



CYN Environmental Services 100 Tosca Drive, Stoughton, Massachusetts 02072	Prepared By: Others Scale: As Noted Date: 19 September 2005	**Treatment Process Plan** Callahan Company - December 2005 Acetone Release 18 Industrial Avenue, Walpole, Massachusetts		
		Release Tracking Number: 3-24565	Cyn Job No.: 204585-00-TS	Figure No. 2



CYN Environmental Services 100 Tosca Drive, Stoughton, Massachusetts 02072	Prepared By: Others Scale: Reduced Date: 20 September 2005	**Treatment System Layout Plan** Callahan Company - December 2004 Acetone Release 18 Industrial Avenue, Walpole, Massachusetts		
		Release Tracking Number: 3-24565	Cyn Job No.: 204585-00-TS	Figure No. 3



CYN Environmental Services
100 Tosca Drive, Stoughton, Massachusetts 02072

Prepared By: Others

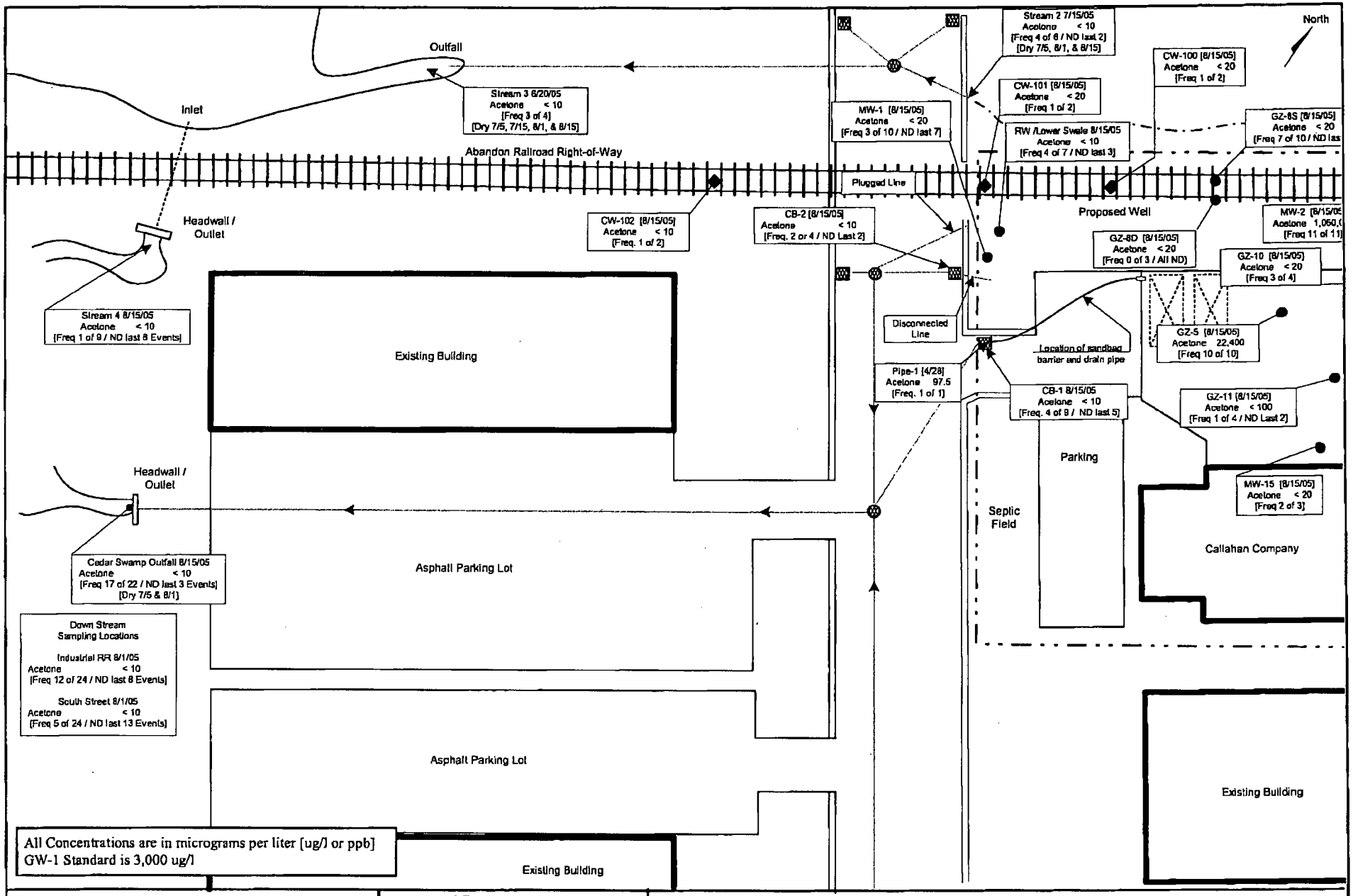
Scale: Reduced

Date: 24 August 2005

15 August 2005 - Acetone Concentration Plan

Callahan Company - December 2004 Acetone Release
18 Industrial Avenue, Walpole, Massachusetts

Release Tracking Number: 3-24565 | Cyn Job No.: 204585-00-TS | Figure No. 4A



CYN Environmental Services
100 Tosca Drive, Stoughton, Massachusetts 02072

Prepared By: Others

Scale: Reduced

Date: 24 August 2005

15 August 2005 - Acetone Concentration Plan

Callahan Company - December 2004 Acetone Release
18 Industrial Avenue, Walpole, Massachusetts

Release Tracking Number: 3-24565 | Cyn Job No.: 204585-00-TS | Figure No. 4B

Air Stationary Source Vapor Recovery Facilities

FISHER SCIENTIFIC -- 11189, HYDROGEN PEROXIDE 30 - 50 %

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MSDS Safety Information

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FSC: 6810
NIIN: 01-211-0958
MSDS Date: 04/21/1999
MSDS Num: CLFKR
Product ID: 11189, HYDROGEN PEROXIDE 30 - 50 %
MFN: 01
Responsible Party
Cage: 18464
Name: FISHER SCIENTIFIC
Address: 1 REAGENT LANE
City: FAIRLAWN NJ 07410
Info Phone Number: 201-796-7100
Emergency Phone Number: 201-796-7100
Chemtrec IND/Phone: (800)424-9300
Review Ind: Y
Published: Y

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Contractor Summary

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Cage: 18464
Name: FISHER SCIENTIFIC
Address: 1 REAGENT LANE
City: FAIRLAWN NJ 07410
Phone: 201-796-7100

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Item Description Information

==========

Item Manager: S9G
Item Name: HYDROGEN PEROXIDE,TECHNICAL
Specification Number: NONE
Type/Grade/Class: NONE
Unit of Issue: DR
Quantitative Expression: 00000000030GL
UI Container Qty: 0
Type of Container: 1A1 METAL DR

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Ingredients

==========

Cas: 7722-84-1
RTECS #: MX0899000
Name: HYDROGEN PEROXIDE
% low Wt: 30.
% high Wt: 50.
OSHA PEL: 1.4 MG/M3;1 PPM
ACGIH TLV: 1.4 MG/M3;1 PPM
ACGIH STEL: NOT ESTABLISHED

Cas: 7732-18-5
RTECS #: ZC0110000
Name: WATER
% Wt: BALANCE

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Health Hazards Data

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Route Of Entry Inds - Inhalation: YES
Skin: YES
Ingestion: YES
Carcinogenicity Inds - NTP: NO
IARC: NO

OSHA: NO
Effects of Exposure: EYES: CORROSIVE, CAUSES SEVERE BURNS, & MAY CAUSE CORNEAL DAMAGE. SKIN: IRRITATION & POSSIBLE BURNS. MAY CAUSE FORMATION OF PAPULES & VESICLES. INGESTION: CAUSES GASTROINTESTINAL IRRITATION & BURNS. MAY CAUSE VASCULAR COLLAPSE & DAMAGE, & BLEEDING OF THE STOMACH & ULCER FORMATION. MAY DAMAGE RED BLOOD CELLS MAY CAUSE POSSIBLE CEREBRAL SWELLING & DEATH. INHALATION:CAUSES CHEMICAL BURNS TO THE RE SPIRATORY TRACT. MAY CAUSE ULCERATION OF NASAL TISSUE, CHEMICAL PNEUMONIA, UNCONSCIOUSNESS, & DEATH. ACUTE LUNG DAMAGE & DELAYED PULMONARY EDEMA AT HIGH CONCENTRATIONS. CHRONIC: DERMATITIS, MUTAGENIC EFFECTS, OR CORNEAL DAMAGE.
Explanation Of Carcinogenicity: ACGIH: A3 ANIMAL CARCINOGEN. IARC: GROUP 3 CARCINOGEN (THE AGENT IS NOT CLASSIFIABLE AS TO ITS CARCINOGENICITY TO HUMANS).
Signs And Symptions Of Overexposure: EYES: SEVERE BURNS. SKIN: MAY CAUSE DISCOLORATION, ERTYHEMA, & SWELLING. INGESTION: CAUSES NAUSEA, VOMITING & DIARRHEA. MAY CAUSE DIFFICULTY IN SWALLOWING, & STOMACH DISTENSION. MAY RESULT IN IRRITA TION OF THE ESOPHAGUS. INHALATION: MAY CAUSE INSOMNIA, NERVOUS TREMORS WITH NUMB EXTREMITIES.
First Aid: GET IMMEDIATE MEDICAL AID FOR ALL ROUTES OF EXPOSURE. EYES: DON'T ALLOW VICTIM TO RUB EYES. EXTENSIVE IRRIGATION (>30 MIN.) REQUIRED. SKIN: IMMEDIATELY FLUSH WITH PLENTY OF SOAP & WATER (15 MIN. MINIM UM) WHILE REMOVING CONTAMINATED CLOTHING & SHOES. INGESTION: DO NOT INDUCE VOMITING. IF VICTIM IS CONSCIOUS & ALERT, GIVE 2-4 CUPFULS OF MILK OR WATER. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS P ERSON. WASH MOUTH OUT WITH WATER. INHALATION: REMOVE FROM EXPOSURE. DO NOT GIVE MOUTH-TO-MOUTH RESPIRATION. GIVE OXYGEN.

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Handling and Disposal

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Spill Release Procedures: AVOID RUNOFF INTO WATERWAYS. CLEAN UP SPILLS IMMEDIATELY. USE PROTECTIVE EQUIPMENT. USE WATER SPRAY TO DISPERSE THE GAS/VAPOR. REMOVE IGNITION SOURCES. ABSORB SPILL USING AN ABSORBENT, NON-COMBUSTIBLE MATERIAL. FLUSH SPILL AREA WITH WATER. PROVIDE VENTILATION. DO NOT GET WATER INSIDE CONTAINERS. KEEP COMBUSTIBLES AWAY FROM SPILL.
Waste Disposal Methods: DISPOSE OF IN A MANNER CONSISTENT WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
Handling And Storage Precautions: USE ONLY IN WELL VENTILATED AREAS. CONTENTS MAY DEVELOP PRESSURE UPON STORAGE. KEEP CONTAINER TIGHTLY CLOSED. AVOID CONTACT WITH COMBUSTIBLE MATERIALS. STORE PROTECTED FROM LIGHT. KEEP AWAY FROM HEAT, SPARKS, & FLAME. STORE IN A COOL, DRY, WELL-VENTILATED AREA AWAY FROM INCOMPATIBLE SUBSTANCES.
Other Precautions: UNUSED CHEMICALS SHOULD NOT BE RETURNED TO THE CONTAINER. RINSE EMPTY DRUMS & CONTAINERS THOROUGHLY WITH WATER BEFORE DISCARDING. KEEP AWAY FROM ALKALIES, OXIDIZABLE MATERIALS, FINELY DIVIDED METALS, ALCOHOLS, & PERMANGANATE. STORE BELOW 35C. STORE ONLY IN LIGHT-RESISTENT CONTAINERS FITTED WITH A SA FETY VENT.

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Fire and Explosion Hazard Information

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Flash Point Text: NON-COMBUSTIBLE
Extinguishing Media: USE WATER ONLY! DO NOT USE CARBON DIOXIDE, OR DRY CHEMICAL.
Fire Fighting Procedures: STRONG OXIDIZER. WEAR A SELF-CONTAINED BREATHING APPARATUS IN PRESSURE-DEMAND, MSHA/NIOSH (APPROVED OR EQUIVALENT), & FULL PROTECTIVE GEAR. DIKE & COLLECT WATER USED TO FIGHT FIRE. USE WATER SPRAY T O KEEP FIRE-EXPOSED CONTAINERS COOL. VAPORS CAN SPREAD ALONG THE GROUND & COLLECT IN LOW OR CONFINED PLACES.
Unusual Fire/Explosion Hazard: CONTACT WITH COMBUSTIBLE MATERIALS MAY CAUSE A FIRE. DURING A FIRE, IRRITATING & HIGH TOXIC GASES MAY BE GENERATED. SOME OXIDIZERS MAY REACT EXPLOSIVELY WITH HYDROCARBONS (FUEL). MAY DECOMPOSE EXPLOSI VELY WHEN HEATED OR INVOLVED IN A FIRE. MAY ACCELERATE BURNING IF INVOLVED IN A FIRE.

Air Stationary Source Vapor Recovery Facilities

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Control Measures
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Respiratory Protection: A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29CFR1910.134 & ANSI Z88.2 REQUIREMENTS OR EUROPEAN STANDARD EN 149 MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.
Protective Gloves: WEAR APPROPRIATE PROTECTIVE GLOVES.
Eye Protection: WEAR APPROPRIATE PROTECTIVE EYEGLASSES OR CHEMICAL SPLASH GOGGLES.
Work Hygienic Practices: WASH THOROUGHLY AFTER HANDLING. REMOVE CONTAMINATED CLOTHING & WASH BEFORE REUSE. DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING. DO NOT INGEST OR INHALE. DISCARD CONTAMINATED SHOES.
Supplemental Safety and Health: NONE
==========
Physical/Chemical Properties
==========
HCC: D1
Boiling Point: =108.C, 226.4F
B.P. Text: @ 760 MMHG
Melt/Freeze Pt: =-33.C, -27.4F
Decomp Text: NOT PROVIDED BY MFR
Vapor Pres: 23 MM HG @ 30 DEG C
Vapor Density: 1.10
Spec Gravity: 1.1 - 1.2 (30 - 50%)
PH: 3.3 (30% SOL)
Viscosity: 1.25 CP
Evaporation Rate & Reference: 1.0 (BUTYL ACETATE=1)
Solubility in Water: MISCIBLE
Appearance and Odor: LIQUID, CLEAR, COLORLESS, SLIGHT ACID ODOR.
Percent Volatiles by Volume: NOT PROVIDED
Corrosion Rate: NOT PROVIDED BY MFR
==========
Reactivity Data
==========
Stability Indicator: NO
Stability Condition To Avoid: DECOMPOSES SLOWLY TO RELEASE OXYGEN. AVOID HEAT AND PH >4.
Materials To Avoid: HEAVY METALS, REDUCING AGENTS, RUST, DIRT OR ORGANIC MATERIALS. STRONG OXIDIZING AGENTS, STRONG REDUCING AGENTS.
Hazardous Decomposition Products: OXYGEN, HYDROGEN, GAS, WATER, HEAT, STEAM.
Hazardous Polymerization Indicator: NO
Conditions To Avoid Polymerization: WILL NOT OCCUR.
==========
Toxicological Information
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Toxicological Information: EPIDEMIOLOGY, TERATOGENICITY, REPRODUCTIVE EFFECTS, & NEUROTOXICITY: NO INFORMATION AVAILABLE. MUTAGENICITY: CAS# 7722-84-1 MUTATION IN MICROORGANISMS: SALMONELLA TYPHIMURIUM = 100 UG/PLATE; HUMAN, E MBRYO = 50 UMOL/L; CYTOGENETIC ANALYSIS: HUMAN, EMBRYO = 20 UMOL/L. MUTATION IN MAMMALIAN SOMATIC CELLS: HAMSTER, LUNG = 1 MMOL/L.
==========
Ecological Information
==========
Ecological: RAIN WASHOUT IS EXPECTED DUE TO CONDENSATION OF HYDROGEN PEROXIDE ON CONTACT WITH WATER DROPLETS. IN THE ATMOSPHERE, INDIRECT PHOTOOXIDATION IS PERDICTED WITH A HALF-LIFE OF 10 TO 20 HOURS. NON-SIGNIF ICANT EVAPORATION & ADSORPTION FROM WATER SURFACES & SOIL/SEDIMENTS IS EXPECTED. RAPID & CONSIDERABLE AEROBIC BIODEGRADATION WAS DETERMINED WITH A HALF-LIFE 1 MINUTE (BIOLOGICAL TREATMENT SLUDGE) & 0. 3 TO 2 DAYS (FRESH WATER). HYDROGEN PEROXID IS NON-BIOACCUMULABLE.
==========
MSDS Transport Information
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Transport Information: SHIPPING NAME: HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS 30%, HAZARD CLASS: 5.1, UN NUMBER: UN2014, PACKING GROUP II.

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Regulatory Information

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Sara Title III Information: SECTION 302 (RQ) NONE OF THE CHEMICALS IN THIS MATERIAL HAVE AN RQ. SECTION 302 (TPQ) CAS# 7722-84-1: CONCENTRATION 52%; TPQ = 1000 POUNDS; RQ = 1000 POUNDS. SARA CODES CAS#7722-84-1: ACUTE, FLAMMABLE . SECTION 313 NO CHEMICAL ARE REPORTABLE UNDER SECTION 313.

Federal Regulatory Information: TSCA: CAS#7722-84-1 AND 7732-18-5 ARE LISTED ON THE TSCA INVENTORY. CLEAN AIR ACT: THIS MATERIAL DOES NOT CONTAIN ANY HAZARDOUR AIR POLLUTANTS, CLASS 1 OZONE DEPLETORS OR CLASS 2 OZONE DEPLETORS. CLEA N WATER ACT: NOT LISTED.

OSHA: CAS#7722-84-1 IS CONSIDERED HIGHLY HAZARDOUS BY OSHA.

State Regulatory Information: HYDROGEN PEROXIDE CAN BE FOUND ON THE FOLLOWING STATE RIGHT TO KNOW LISTS: CALIFORNIA, NEW JERSEY, FLORIDA, PENNSYLVANIA, MINNESOTA, MASSACHUSETTS.

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Other Information

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Transportation Information

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Responsible Party Cage: 18464

Trans ID NO: 157545

Product ID: 11189, HYDROGEN PEROXIDE 30 - 50 %

MSDS Prepared Date: 04/21/1999

Review Date: 06/20/2001

MFN: 1

Net Unit Weight: 275 LBS.

Multiple KIT Number: 0

Unit Of Issue: DR

Container QTY: 0

Type Of Container: 1A1 METAL DR

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Detail DOT Information

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DOT PSN Code: HMM

DOT Proper Shipping Name: HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS

DOT PSN Modifier: WITH NOT LESS THAN 20 PER CENT BUT NOT MORE THAN 40 PER CENT HYDROGEN PEROXIDE (STABILIZED AS NECESSARY)

Hazard Class: 5.1

UN ID Num: UN2014

DOT Packaging Group: II

Label: OXIDIZER, CORROSIVE

Special Provision: A2,A3,A6,B53,B104,B110,T14,T37

Packaging Exception: NONE

Non Bulk Pack: 202

Bulk Pack: 243

Max Qty Pass: 1 L

Max Qty Cargo: 5 L

Vessel Stow Req: D

Water/Ship/Other Req: 25,66,75,106

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Detail IMO Information

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IMO PSN Code: IIL

IMO Proper Shipping Name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION,

IMO PSN Modifier: WITH NOT LESS THAN 20% BUT NOT MORE THAN 60% HYDROGEN PEROXIDE (STABILIZED AS NECESSARY)

IMDG Page Number: 5151

UN Number: 2014

UN Hazard Class: 5.1

IMO Packaging Group: II
Subsidiary Risk Label: CORROSIVE
EMS Number: 5.1-02
MED First Aid Guide NUM: 735
==========
Detail IATA Information
==========
IATA PSN Code: NUB
IATA UN ID Num: 2014
IATA Proper Shipping Name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION
IATA PSN Modifier: WITH 20% OR MORE BUT 40% OR LESS HYDROGEN PEROXIDE (STABILIZED AS NECESSARY)
IATA UN Class: 5.1
Subsidiary Risk Class: 8
IATA Label: OXIDIZER & CORROSIVE
UN Packing Group: II
Packing Note Passenger: 501
Max Quant Pass: 1L
Max Quant Cargo: 5L
Packaging Note Cargo: 506
==========
Detail AFI Information
==========
AFI PSN Code: NUB
AFI Proper Shipping Name: HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS
AFI PSN Modifier: WITH NOT LESS THAN 20% BUT NOT MORE THAN 40% HYDROGEN PEROXIDE (STABILIZED AS NECESSARY)
AFI Hazard Class: 5.1
AFI UN ID NUM: UN2014
AFI Packing Group: II
AFI Label: 8
Special Provisions: P5, A2, A3, A6
Back Pack Reference: A9.7
==========
HAZCOM Label
==========
Product ID: 11189, HYDROGEN PEROXIDE 30 - 50 %
Cage: 18464
Company Name: FISHER SCIENTIFIC
Street: 1 REAGENT LANE
City: FAIRLAWN NJ
Zipcode: 07410
Health Emergency Phone: 201-796-7100
Label Required IND: Y
Date Of Label Review: 06/20/2001
Status Code: A
Origination Code: F
Chronic Hazard IND: Y
Eye Protection IND: YES
Skin Protection IND: YES
Signal Word: DANGER
Respiratory Protection IND: YES
Health Hazard: Severe
Contact Hazard: Severe
Fire Hazard: None
Reactivity Hazard: Slight
Hazard And Precautions: TARGET ORGANS: N/P. EYES: CORROSIVE, CAUSES SEVERE BURNS, & MAY CAUSE CORNEAL DAMAGE. SKIN: IRRITATION & POSSIBLE BURNS. MAY CAUSE FORMATION OF PAPULES & VESICLES. INGESTION: CAUSES GASTROINTESTINA L IRRITATION & BURNS. MAY CAUSE VASCULAR COLLAPSE & DAMAGE.
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Disclaimer (provided with this information by the compiling agencies): This

information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever expressly or implied warrants, states, or intends said information to have any application, use or viability by or to any person or persons outside the Department of Defense nor any person or persons contracting with any instrumentality of the United States of America and disclaims all liability for such use. Any person utilizing this instruction who is not a military or civilian employee of the United States of America should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation regardless of similarity to a corresponding Department of Defense or other government situation.

Air Stationary Source Vapor Recovery Facilities

NEPONSET RIVER AT WALPOLE, MA

General Information	
USGS Station Number:	01104840
Station Type:	Low Flow, partial record
Period of Record:	1967-68
Latitude (d/m/s):	420828
Longitude (d/m/s):	711525
Location:	Main Street
Hydrologic Unit Code:	01090001
Basin Name:	Boston Harbor
Remarks:	None
Basin Characteristics	
Drainage Area(sq.miles):	11.45
Stratified Drift Area(sq.miles):	8.42
Waterbody Area(sq.miles):	0.65
Wetland Area(sq.miles):	1.04
Total Stream Length(miles):	21.98
Mean Basin Slope(percent):	2.47
Minimum Elevation(ft):	147
Mean Elevation(ft):	305
Maximum Elevation(ft):	470
Streamflow Statistics	
(All statistics in cubic feet per second)	
Flood-Flow Frequencies	
Citations	1
Mean Annual Flood:	
10 Year Flood:	
25 Year Flood:	
50 Year Flood:	
100 Year Flood:	

Air Stationary Source Vapor Recovery Facilities

500 Year Flood:	
Flow Durations	
1%:	
2%:	
3%:	
5%:	
7%:	
10%:	
15%:	
20%:	
25%:	
30%:	
35%:	
40%:	
45%:	
50%:	15.0
55%:	13.3
60%:	11.8
65%:	10.3
70%:	8.97
75%:	7.74
80%:	6.65
85%:	5.49
90%:	4.45
93%:	3.73
95%:	3.24
97%:	2.69
98%:	2.35
99%:	1.98
August Median Flow	
August Median Flow:	5.83
Low-Flow Frequencies	

Air Stationary Source Vapor Recovery Facilities

7-day, 2-year low flow:	3.21
7-day, 10-year low flow:	1.63

[1] Ries, K.G., III, 1998, Streamflow measurements, basin characteristics, and streamflow statistics for low-flow partial record stations operated in Massachusetts from 1989 through 1996: USGS Water Resources Investigations Report 98-4006, 162 p.

U.S. Department of the Interior, U.S. Geological Survey
10 Bearfoot Road
Northborough, MA 01532
(508) 490-5000

Maintainer: webmaster@mass1.er.usgs.gov

Air Stationary Source Vapor Recovery Facilities

click on your browser's 'Back' button to return to previous page

Rare Species by Town: W

Last Updated on 3/1/2003

The 'Most Recent Obs' field represents the most recent observation of a species in a town. An asterisk (*) indicates that the species was most recently observed within the past 25 years. However, many rare species are difficult to detect even though they are present, and Natural Heritage does not conduct methodical species surveys in each town on a consistent basis. Therefore, the fact that the 'Most Recent Obs' for a species may be several years old should not lead to the interpretation that the species no longer occurs in a town.

Only those rare species records that are less than 25 years old are used in Natural Heritage project review associated with the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00) and the Massachusetts Endangered Species Act Regulations (321 CMR 10.00).

Click on a town below to view state listed species for that town. To print the species for a particular town, highlight the species using your mouse, go to Print under the File Menu, click on 'Selection' under 'Print Range' and click OK.

Wakefield	Washington	West Boylston	Westfield	Whately	Windsor
Wales	Watertown	West Bridgewater	Westford	Whitman	Winthrop
Walpole	Wayland	West Brookfield	Westhampton	Wilbraham	Woburn
Waltham	Webster	West Newbury	Westminster	Williamsburg	Worcester
Ware	Wellesley	West Springfield	Weston	Williamstown	Worthington
Wareham	Wellfleet	West Stockbridge	Westport	Wilmington	Wrentham
Warren	Wendell	West Tisbury	Westwood	Winchendon	
Warwick	Wenham	Westborough	Weymouth	Winchester	

Town		Taxonomic Group	Scientific Name	Common Name	State Rank	Federal Rank
WAKEFIELD	*	Amphibian	Ambystoma laterale	Blue-Spotted Salamander	SC	
WAKEFIELD		Amphibian	Ambystoma opacum	Marbled Salamander	T	
WAKEFIELD	*	Bird	Gallinula chloropus	Common Moorhen	SC	(PS)
WAKEFIELD		Bird	Ixobrychus exilis	Least Bittern	E	
WAKEFIELD	*	Bird	Rallus elegans	King Rail	T	
WAKEFIELD		Beetle	Cicindela rufiventris hentzii	Hentz's Redbelly Tiger Beetle	T	

Air Stationary Source Vapor Recovery Facilities

WAKEFIELD		Vascular Plant	Eriophorum gracile	Slender Cottongrass	T	
WAKEFIELD		Vascular Plant	Houstonia longifolia var longifolia	Long-Leaved Bluet	E	
Town		**Taxonomic Group**	**Scientific Name**	**Common Name**	**State Rank**	**Federal Rank**
WALES	*	Amphibian	Ambystoma laterale	Blue-Spotted Salamander	SC	
WALES	*	Amphibian	Ambystoma opacum	Marbled Salamander	T	
WALES	*	Amphibian	Hemidactylium scutatum	Four-Toed Salamander	SC	
WALES	*	Reptile	Clemmys guttata	Spotted Turtle	SC	
WALES	*	Reptile	Clemmys insculpta	Wood Turtle	SC	
WALES	*	Reptile	Terrapene carolina	Eastern Box Turtle	SC	
WALES		Vascular Plant	Veronicastrum virginicum	Culver's-Root	T	
Town		**Taxonomic Group**	**Scientific Name**	**Common Name**	**State Rank**	**Federal Rank**
WALPOLE	*	Amphibian	Ambystoma laterale	Blue-Spotted Salamander	SC	
WALPOLE	*	Reptile	Clemmys guttata	Spotted Turtle	SC	
WALPOLE	*	Butterfly/Moth	Callophrys hesseli	Hessel's Hairstreak	SC	
WALPOLE		Butterfly/Moth	Erynnis persius persius	Persius Duskywing	E	
WALPOLE		Vascular Plant	Ophioglossum pusillum	Adder's-Tongue Fern	T	
WALPOLE		Vascular Plant	Rhododendron maximum	Great Laurel	T	
Town		**Taxonomic Group**	**Scientific Name**	**Common Name**	**State Rank**	**Federal Rank**
WALTHAM		Amphibian	Ambystoma opacum	Marbled Salamander	T	