

Wilcox & Barton, Inc. 54 Notch Road, Adams, MA 01220
413-743-7714 Fax 413-743-7774

Wilcox & Barton, Inc.

Fax

To: Michael O'Brien

From: Lawrence Mach

Fax: 617-918-0505

Pages: 4

Phone: 617-918-1551

Date: 10/13/2005

Re: NPDES RGP Testing Requirements

CC:

☐ Urgent

☒ For Review

☐ Please Comment

☒ Please Reply

☐ Please Recycle

Please find the attached NPDES GRP for review. Any questions or comments, please contact Bill Wilcox at 802-496-4747. Thank you.

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: Gilman Residence		Facility/site address: 46 Angela Drive		
Location of facility/site: longitude: 71d16 latitude: 43d39	Facility SIC code(s): 8811	Street: 46 Angela Drive		
b) Name of facility/site owner: Mary Anne Gilman		Town: Tuftonboro		
Email address of owner: NA		State: NH	Zip: 03853	County: Carroll
Telephone no. of facility/site owner: (603) 642-3173		Owner is (check one): 1. Federal _____ 2. State/Tribal _____ 3. Private ☒ 4. other, if so, describe:		
Fax no. of facility/site owner:				
Address of owner (if different from site):				
Street: 13 Hummingbird Lane				
Town: Danville	State: NH	Zip: 03819	County: Rockingham	
c) Legal name of operator: Wilcox & Barton, Inc.	Operator telephone no: (802) 496-4747			
	Operator fax no.: (802) 496-4748		Operator email: wwilcox@wilcoxandbarton.com	
Operator contact name and title: Bill Wilcox, Principal Geologist				

Address of operator (if different from owner):		Street: 1115 Route 100B, Suite 200	
Town: Moretown	State: VT	Zip: 05660	County: Washington

d) Check "yes" or "no" for the following:

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

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes___ No ☒ If "yes," please list: - site identification # assigned by the state of NH or MA: - permit or license # assigned: - state agency contact information: name, location, and telephone number:	f) Is the site/facility covered by any other EPA permit, including: - multi-sector storm water general permit? Y___ N ☒, if Y, number: - phase I or II construction storm water general permit? Y___ N ☒, if Y, number: - individual NPDES permit? Y___ N ☒, if Y, number: - any other water quality related permit? Y___ N ☒, if Y, number:
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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: Groundwater remediation to respond to a release of #2 fuel oil from a residential aboveground storage tank. Approximately 100 gallons of #2 fuel oil was released from the tank located within the building basement, which migrated to a perimeter drain surrounding the basement. The perimeter drain discharges to a sump which is located immediately adjacent to Lake Winnepesaukee.		
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 <u>0.22</u> Average flow <u>0.11</u> Is maximum flow a design value? Y ☒ N___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. Average flow is estimated value, max flow is a design value.
3) Latitude and longitude of each discharge within 100 feet: pt.1: long. <u>71 16</u> lat. <u>43 39</u> ; 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 ☒ or seasonal _____? Is discharge ongoing Yes ☒ No _____?
c) Expected dates of discharge (mm/dd/yy): start 10/12/05 end 10/31/06	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: 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	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	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 minimum)	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	✓									
2. Total Residual Chlorine	✓									
3. Total Petroleum Hydrocarbons		✓								
4. Cyanide	✓									
5. Benzene		✓								
6. Toluene		✓								
7. Ethylbenzene		✓								
8. (m,p,o) Xylenes		✓								
9. Total BTEX ⁴		✓								

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 (1,2- Dibromo-methane)	✓									
11. Methyl-tert-Butyl Ether (MtBE)	✓									
12. tert-Butyl Alcohol (TBA)	✓									
13. tert-Amyl Methyl Ether (TAME)	✓									
14. Naphthalene		✓								
15. Carbon Tetra- chloride	✓									
16. 1,4 Dichlorobenzene	✓									
17. 1,2 Dichlorobenzene	✓									
18. 1,3 Dichlorobenzene	✓									
19. 1,1 Dichloroethane	✓									
20. 1,2 Dichloroethane	✓									
21. 1,1 Dichloroethylene	✓									
22. cis-1,2 Dichloro- ethylene	✓									
23. Dichloromethane (Methylene Chloride)	✓									
24. Tetrachloroethylene	✓									

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	✓									
26. 1,1,2 Trichloroethane	✓									
27. Trichloroethylene	✓									
28. Vinyl Chloride	✓									
29. Acetone	✓									
30. 1,4 Dioxane	✓									
31. Total Phenols	✓									
32. Pentachlorophenol	✓									
33. Total Phthalates ⁵ (Phthalate esters)	✓									
34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	✓									
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✓									
a. Benzo(a) Anthracene	✓									
b. Benzo(a) Pyrene	✓									
c. Benzo(b) Fluoranthene	✓									
d. Benzo(k) Fluoranthene	✓									
e. Chrysene	✓									

⁵The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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	✓									
g. Indeno(1,2,3-cd) Pyrene	✓									
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		✓								
h. Acenaphthene		✓								
i. Acenaphthylene		✓								
j. Anthracene		✓								
k. Benzo(ghi) Perylene		✓								
l. Fluoranthene		✓								
m. Fluorene		✓								
n. Naphthalene-		✓								
o. Phenanthrene		✓								
p. Pyrene		✓								
37. Total Polychlorinated Biphenyls (PCBs)	✓									
38. Antimony	✓									
39. Arsenic	✓									
40. Cadmium	✓									
41. Chromium III	✓									
42. Chromium VI	✓									

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	✓									
44. Lead	✓									
45. Mercury	✓									
46. Nickel	✓									
47. Selenium	✓									
48. Silver	✓									
49. Zinc	✓									
50. Iron	✓									
Other (describe):	✓									

c) For discharges where metals are believed present, please fill out the following:

<i>Step 1:</i> 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?
<i>Step 2:</i> 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: Treatment system will consist of a settling tank-oil/water separator and bag filtration system followed by two 750-pound liquid-phase granular activated carbon (GAC) vessels. Sediment will be controlled via the settling tank and bag filtration. System effluent will be below the established discharge criteria.						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	Oil/water separator	Equalization tanks	Bag filter	GAC filter
	✓		✓		✓	✓
	Chlorination	Dechlorination	Other (please describe):			
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 <u>50</u> Maximum flow rate of treatment system <u>100</u> Design flow rate of treatment system <u>100</u>						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): None						

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 ☐	River/brook ☐	Wetlands ☐	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: Treatment system effluent will be overland via hoses to the surface water of Lake Winnepesaukee.						

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: 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 <u>B</u>
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water <u>NA</u> 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 <u> </u> No <u>✓</u> If yes, for which pollutant(s)? Lake Winnepesaukee is not impaired in the area of discharge, but is at: Brewster Beach, Carry Beach, Town Beach1/Alton Bay, Weiss Beach/Endicott Park, Bartletts Is there a TMDL? Yes <u> </u> No <u>✓</u> 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 <u> </u> No <u>✓</u> Has any consultation with the federal services been completed? No <u>✓</u> or is consultation underway? No <u>✓</u> 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? <u> </u> or written concurrence <u> </u> on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?
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 <u> </u> No <u>✓</u> Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes <u> </u> No <u> </u>

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.

Influent water is presumed to contain #2 fuel oil constituents based on the nature of the release. Laboratory characterization of influent has not been performed to date.

No species of concern are located within New Hampshire.

One plant, Small Whorled Pogonia (*Isotria Medeoloides*) has habitat within Carrol County. As the discharge is directly to Lake Winnepesaukee, discharge is not likely to impact this upland species. Also, the area of the treatment system and facilities is developed, and response actions are not likely to impact plant habitat.

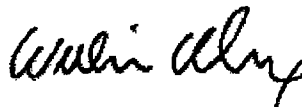
Attached are a Site Location Map, Site Plan, and Process and Instrumentation Diagram. No sanitary sewer service is located within the area of the site.

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.

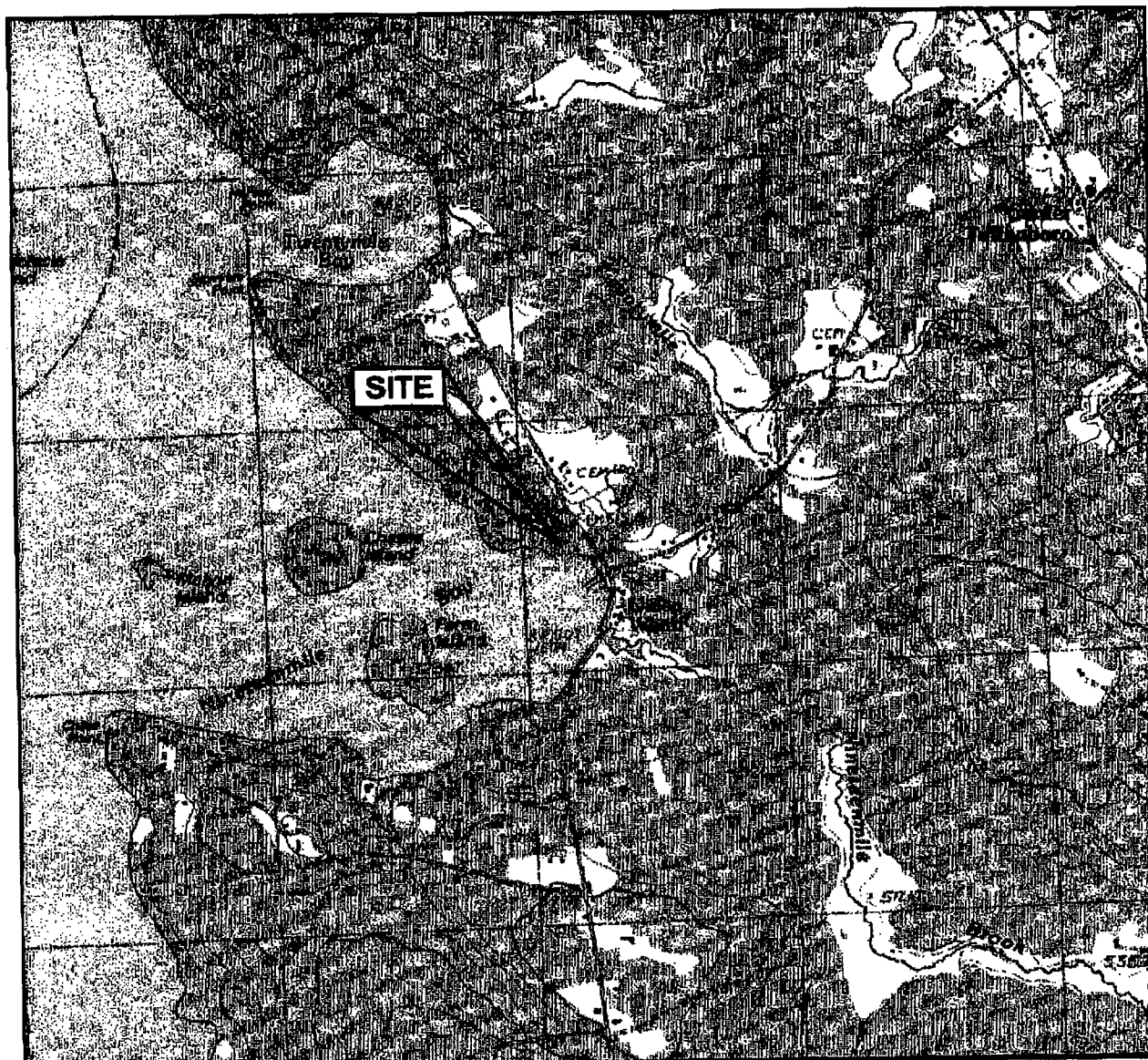
Facility/Site Name: Gilman Residence

Operator signature

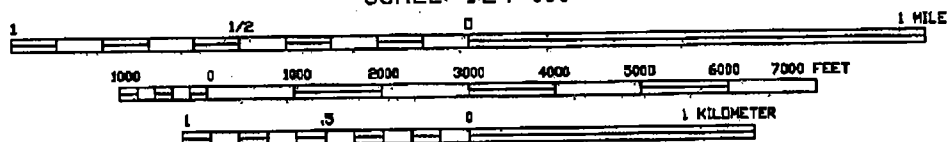


Title: Principal Geologist

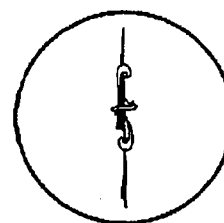
Date: 10/13/05



SCALE: 1:24 000



CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



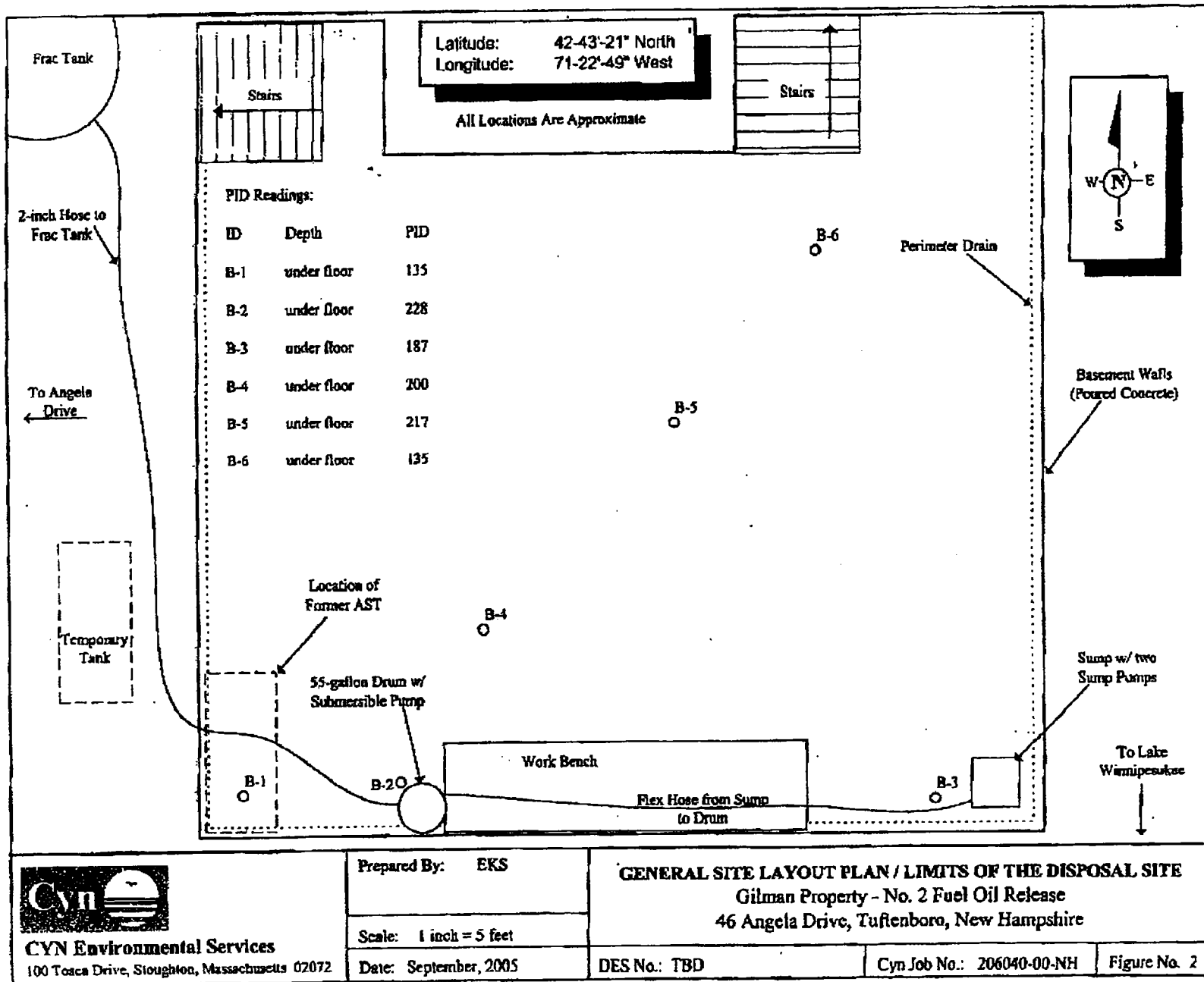
DATE October 11, 2005	SCALE As shown	FILE Site Loc Map.dwg	Wilcox & Barton, Inc. ENVIRONMENTAL SERVICES
APPROVED BY WRW	DRAWN BY WGW	REVISED	
CLIENT Mary Anne Gilman		JOB NUMBER	
LOCATION 46 Angela Drive Tuftonboro, NH		MAP SOURCE Melvin Village, NH USGS QUAD 1987	

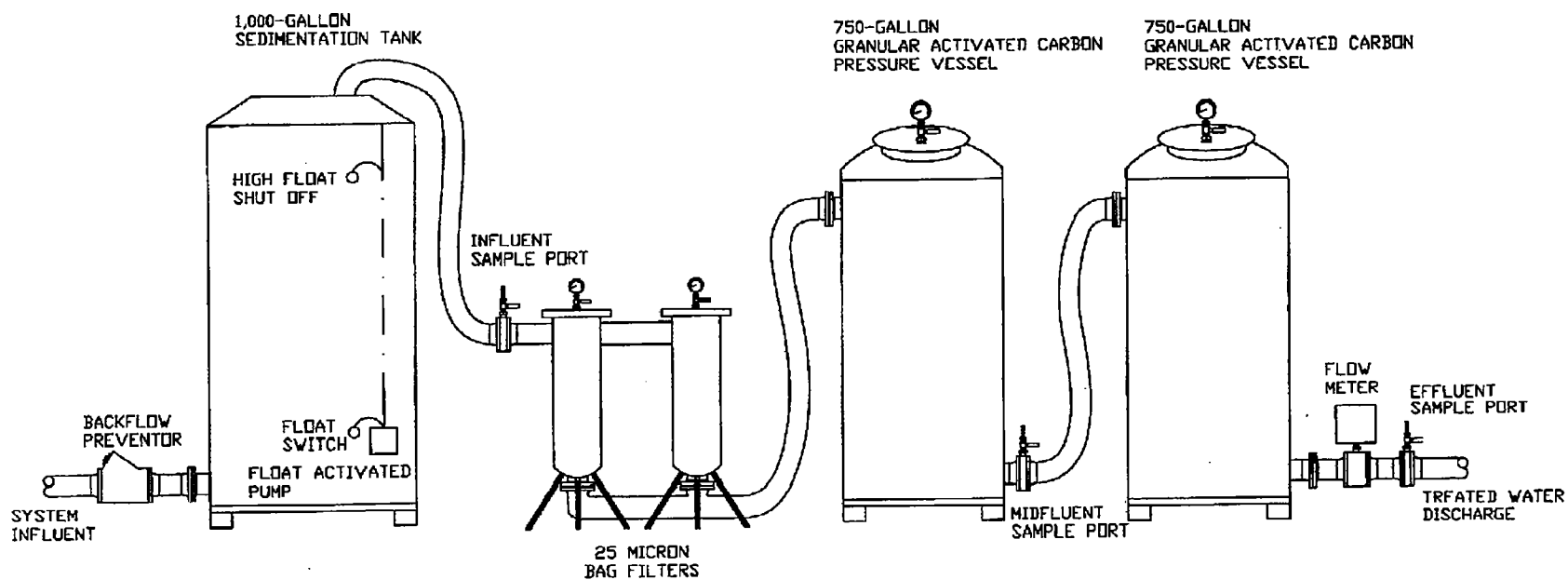
SITE LOCATION MAP

Figure 1

10/11/2005 TUE 16:35 FAX 603 748 1688 CYN ENVIRONMENTAL DOVER

002/003





Wilcox & Barton, Inc.		
ENVIRONMENTAL SERVICES		
TITLE PROCESS AND INSTRUMENTATION DIAGRAM		
DATE October 12, 2005	SCALE Not To Scale	FILE P & I Diagram
APPROVED BY WRW	DRAWN BY WGW	REVISED
CLIENT Mary Anne Gilman		JOB NUMBER
LOCATION 46 Angela Drive Tuftonboro, New Hampshire		DRAWING NUMBER FIGURE 3