Groundwater
& Environmental Services, Inc.

425B Hayden Station Road • Windsor, Connecticut 06095 • (860) 688-9023 • FAX (860) 688-9278

FACSIMILE TRANSMITTAL

Attention: RGP-NOC Processing	**From:**
Company Name: US EPA	**Date:** October 10, 2005
Fax Number: (617) 918-0505	**Phone Number:** (860) 688-9023

Total pages, including cover sheet: _____

☐ Request ☐ Per Our Conversation ☐ URGENT REQUEST
Please respond by:
Date: _____
☑ Hard copy is in the mail ☐ For Your Information Time: _____

COMMENTS:

Please see the enclosed documentation for the Notice of Intent for coverage under the Remediation General Permit.

The original package will be mailed via certified U.S. mail.

Groundwater & Environmental Services, Inc.

425B Hayden Station Road • Windsor, Connecticut 06095 • (860) 688-9023 • (860) 688-9278

October 10, 2005

Mr. David M.Webster
U.S. Environmental Protection Agency
RGP-NOC Processing
Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, MA 02114-2023

Re: ***Notice of Intent for Coverage under Remediation General Permit***
Former Mobil Service Station #01-ECQ
83-89 Elm Street
Pittsfield, MA

Dear Mr. Webster,

Groundwater & Environmental Services, Inc. (GES), on behalf of ExxonMobil Oil Corporation (ExxonMobil), hereby submits the enclosed Notice of Intent for coverage under the Remediation General Permit (RGP) to operate a Vacuum Enhanced Groundwater Extraction (VEGE) remedial system at the above-referenced Pittsfield, Massachusetts location. A Site Locus Map and a Site Plan are included as Figure 1 and Figure 2, respectively. This request has been made in response to the September 15, 2005 U.S. Environmental Protection Agency Notice of Availability of Remediation General Permit, which states that a response is required within 30 days of the announcement of the availability of the RGP (which is October 10, 2005).

A *Notice of Intent Application* for the site is included as Attachment 1. The required calculations to complete the NOI are included as Attachment 2. The analytical data to support the application is included as Attachment 3. The current remedial system is operating in accordance with the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000) and discharging under NPDES Exclusion permit 01-191. A letter from the EPA granting the Permit Exclusion, dated September 14, 2001, is included as Attachment 4. A copy of the request for *NPDES Permit Exclusion Modification* dated August 21, 2003 and a letter from EPA granting the modification are included as Attachment 5.

Groundwater is currently treated at a flow rate of up to 120 gallons per minute (gpm) and is treated by an oil/water separator, air stripper and two 500-pound liquid-phase granular activated carbon (GAC) units. Discharge of treated groundwater is to a storm drain located on the property, which drains to the Housatonic River.

The groundwater beneath the site is known to contain benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE). A *Process Flow and Instrumentation Diagram* (P&ID) for the remedial system is included as Figure 3.

Please note that the attached NOI application is missing parts of the requested analytical data, as several of these compounds are not a concern at this site and have not been analyzed for previously. Because of the sensitive nature of this project, GES contacted Mr. Dean Tagliaferro, the On-Scene Coordinator for Pittsfield, Massachusetts to obtain an exclusion pursuant to 40 CFR Part 300 (the National Oil and Hazardous Substances Pollution Contingency Plan) which would allow the system to remain operational from October 10, 2005 to the date of submission of additional analytical data. The correspondence with Mr. Tagliaferro granting approval to continue operating the system is included as Attachment 6. GES intends to obtain a Remediation General Permit for this site and shall submit the remaining analytical data as an addendum to this NOI as soon as it is received.

Please contact either of the undersigned at (860) 688-9023 with any questions or comments, or should you require any additional information.

Sincerely,
GROUNDWATER & ENVIRONMENTAL SERVICES, INC.

Sahithi Rondla
Staff Engineer

Leni Sarah Boucher
Project Manager

SRR/LSB/smt

cc: Massachusetts Department of Environmental Protection - Division of Watershed Management
Mr. Dean Tagliaferro - U.S. Environmental Protection Agency
Mr. David Baker - ExxonMobil Oil Corporation

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:** Former Mobil Service Station No. 01-ECQ		**Facility/site** address:		
Location of **facility/site:** longitude:_____ latitude:_____ -73°14'34" 42°26'41"	Facility SIC code(s):	Street: 83 Elm Street,Pittsfield,MA-01201		
b) Name of **facility/site owner:** ExxonMobil Oil Corporation		Town: Everett		
Email address of owner: david.j.baker@exxonmobil.com		State: MA	Zip: 02149	County:
Telephone no.of facility/site **owner:** (617) 381-2807				
Fax no. of facility/site **owner:** (262) 313-1820		**Owner** is (check one): 1. Federal____ 2. State/Tribal_____ 3. Private ✓ 4. other, if so, describe:		
Address of **owner** (if different from site):				
Street: 52 Beacham Street				
Town: Everett	State: MA	Zip: 02149	County:	
c) Legal name of **operator:** Groundwater & Environmental Services, Inc.	**Operator** telephone no: (860) 688-9023			
	Operator fax no.: (860) 688-9278	**Operator** email: lboucher@gesonline.com		
Operator contact name and title: Leni- Sarah Boucher ,Project Manager				

Address of **operator** (if different from owner):	Street: 425B Hayden Station Road		
Town: Windsor	State: CT	Zip: 06095	County: Hartford

d) Check "yes" or "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes ✓ No ___, if "yes," number: 01-191
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes ___ No ✓, if "yes," date and tracking #:
3. Is the discharge a "new discharge"as defined by 40 CFR 122.2? Yes ___ No ✓
4. 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:
1. site identification # assigned by the state of NH or MA: RTN 1-00539
2. permit or license # assigned: REMEDY OPERATION STATUS
3. state agency contact information: name, location, and telephone number:
Richard Green, MADEP Wetern Region,Sprigfield,MA. Ph No (413)755-2249

f) Is the site/facility covered by any other EPA permit, including:
1. multi-sector storm water general permit? Y ___ N ✓, if Y, number:
2. phase I or II construction storm water general permit? Y ___ N ✓, if Y, number:
3. individual NPDES permit? Y ___ N ✓, if Y, number:
4. any other water-quality related permit? Y ___ N ✓, 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:

Vacuum Enhanced Groundwater Extraction remedial system will treat impacted groundwater through an oil/water separator; separated product will flow to an on site product storage tank for later removal by a licensed disposal facility. Impacted groundwater will then flow through sediment filters, an air stripper and (2) 1,000-lb liquid phase Granular Activated Carbon units. Treated groundwater will be discharged to the storm drain before it flows to the Housatonic river.

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, ft^3/s)? Max. flow 0.26 Average flow 0.04 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 based on historical average flow rates

3) Latitude and longitude of each discharge within 100 feet: pt.1:long. -73°14'34" lat. 42°26'41"; 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 08/21/03 end_____	
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 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				Grab						
2. Total Residual Chlorine										
3. Total Petroleum Hydrocarbons										
4. Cyanide										
5. Benzene		✓	1	grab	624	0.50	31		31	
6. Toluene		✓	1	Grab	624	1.0	14		14	
7. Ethylbenzene		✓	1	Grab	624	1.0	8		8	
8. (m,p,o) Xylenes		✓	1	Grab	624	1.0	6.3		6.3	
9. Total BTEX[4]		✓					177		177	

[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)		✓	1	Grab			6.3		6.3	
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 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)
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 esthers)										
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										

[5] 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										
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			1	Grab	SW846	5	<5.0		<5.0	
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:

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: NA DF: NA	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:

Vacuum Enhanced Groundwater Extraction remedial system will treat impacted groundwater through an oil/water separator; separated product will flow to an on site product storage tank for later removal by a licensed disposal facility. Impacted groundwater will then flow through sediment filters, an air stripper and (2) 1,000-lb liquid phase Granular Activated Carbon units. Treated groundwater will be discharged to the storm drain before it flows to the Housatonic river.

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 10.21 Maximum flow rate of treatment system 120 Design flow rate of treatment system 120

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

NA

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:

Vacuum Enhanced Groundwater Extraction remedial system will treat impacted groundwater through an oil/water separator; separated product will flow to an on site product storage tank for later removal by a licensed disposal facility. Impacted groundwater will then flow through sediment filters, an air stripper and (2) 1,000-lb liquid phase Granular Activated Carbon units. Treated groundwater will be discharged to the storm drain before it flows to the Housatonic river.

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 B ,

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 20.6 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 ___ If yes, for which pollutant(s)?
0300 Priority Organics , 1700 Pathogens

Is there a TMDL? Yes ___ No ✓ 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 ___ No ✓
Has any consultation with the federal services been completed ? No ✓ or is consultation underway? Yes 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?

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 ✓ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes ___ No ✓

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: FORMER MOBIL SERVICE STATION 01-ECO

Operator signature: Doug Liddle

Title: OPERATIONS MANAGER

Date: 10/10/05

Groundwater
& Environmental Services, Inc.
428B Hayden Station Road • Windsor, Connecticut 06095 • (860) 688-9023 • FAX (860) 688-9278

7Q10 Flow Calculations

The streamflow guaging station exists 2-miles upstream of the subject site. The yearly 7 day low flow values are as follows:

Year	Flow (cfs)
2004	35.48
2003	16.85
2002	11.85
2001	13.85
2000	37.57
1999	12.85
1998	15.71
1997	15.00
1996	21.14
1995	11.42
1994	20.14
1993	15.71
1992	22.85
1991	18.42
1990	19.71

Source: USGS website

The natural logarithm of the above stream flows are

{ 3.56, 2.82, 2.47, 2.62, 3.62, 2.55, 2.75, 2.70, 3.05, 2.45, 3.0, 2.75, 3.12, 2.91, 2.98 }

The mean (μ), standard deviation (σ) and skew (γ) of the above streamflow data is :

$$\mu = 2.89$$
$$\sigma = 0.35$$
$$C_y = 0.99$$

To estimate the low flow magnitude that has a Recurrance Probability of one in ten years, the integral of PT III probability density function is used.

$$P(x \le x_0) = \frac{\lambda^\beta}{\Gamma(\beta)} \int_0^{x'} (x-\varepsilon)^{\beta-1} e^{-\lambda/(x-\varepsilon)} dx$$ — Equation (1)

Simplifying Equation (1), we get

$$x' \simeq \frac{\beta}{\lambda}\left(1 - \frac{1}{9\beta} + t\sqrt{\frac{1}{9\beta}}\right)^3 + \varepsilon$$ — Equation (2)

Where t = Standard normal deviate corresponding to value of $P(x = x')$

for a 10-yr period $P(x = x') = 0.10$

$\therefore t = -1.2816$

$$\beta = \left(\frac{2}{c_g}\right)^2 \quad \text{— Eq (3)}$$

$$\lambda = \frac{\sqrt{\beta}}{\sigma_g} \quad \text{— Eq (4)}$$

$$\varepsilon = \mu_g - \frac{\beta}{\lambda} \quad \text{— Eq (5)}$$

Applying Eq (3), (4) & (5) to natural log of stream flow data, we get

$$\beta = 4.98$$
$$\lambda = 2.49$$
$$\varepsilon = 0.89$$

Substituting β, λ & ε values in equation (2), the magnitude of x corresponding to a Return Period of 10 years (thus $t = -1.2816$) is computed as follow.

$$x = \frac{4.98}{2.49}\left(1 - \frac{1}{(9)(4.98)} + (-1.2816)\left(\sqrt{\frac{1}{9(4.98)}}\right)^3\right) + 0.89$$

$$x' = 3.02$$

Finally the 7Q10 flow is computed as

$$e^{3.02} = 20.56 \text{ cfs}$$

e-Hardcopy 2.0
Automated Report

New England ACCUTEST Laboratories

09/21/05

Technical Report for

ExxonMobil

GESCT:01-ECQ 83 Elm St., Pittsfield, MA

PO#4505905243 WBS#08

Accutest Job Number: M50569

Sampling Date: 09/06/05

Report to:

Groundwater & Environmental Services

LBoucher@gesonline.com

ATTN: Leni Sarah Boucher

Total number of pages in report: 15

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Certifications: MA (M-MA136) CT (PH-0109) NH (250204) RI (00071) ME (MA136) FL (E87579) NY (23346) NJ (MA926) NAVY USACE

Sections: 1 2 3

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Accutest Laboratories

Sample Summary

ExxonMobil

Job No: M50569

GESCT:01-ECQ 83 Elm St., Pittsfield, MA
Project No: PO#4505905243 WBS#08

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
M50569-1	09/06/05	11:05	JMS	09/07/05	AQ	Influent	INF
M50569-1A	09/06/05	11:05	JMS	09/07/05	AQ	Groundwater Filtered	INF
M50569-2	09/06/05	11:15	JMS	09/07/05	AQ	Ground Water	POST STRIPPER
M50569-3	09/06/05	10:50	JMS	09/07/05	AQ	Ground Water	MID
M50569-4	09/06/05	10:45	JMS	09/07/05	AQ	Effluent	EFF
M50569-4A	09/06/05	10:45	JMS	09/07/05	AQ	Groundwater Filtered	EFF

Accutest Laboratories

Report of Analysis

Client Sample ID:	INF		
Lab Sample ID:	M50569-1	Date Sampled:	09/06/05
Matrix:	AQ - Influent	Date Received:	09/07/05
Method:	EPA 624	Percent Solids:	n/a
Project:	GESCT:01-ECQ 83 Elm St., Pittsfield, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	D45170.D	1	09/11/05	AT	n/a	n/a	MSD2557
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	31.0	0.50	ug/l	
108-88-3	Toluene	14.0	1.0	ug/l	
100-41-4	Ethylbenzene	8.0	1.0	ug/l	
1330-20-7	Xylenes (total)	124	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	6.3	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	92%		76-138%
2037-26-5	Toluene-D8 (SUR)	94%		86-114%
460-00-4	4-Bromofluorobenzene (SUR)	106%		76-114%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	INF		
Lab Sample ID:	M50569-1	Date Sampled:	09/06/05
Matrix:	AQ - Influent	Date Received:	09/07/05
		Percent Solids:	n/a
Project:	GESCT:01-ECQ 83 Elm St., Pittsfield, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Petroleum Hydrocarbons	< 0.61	0.61	mg/l	1	09/12/05	BF	EPA 418.1

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	INF		
Lab Sample ID:	M50569-1A	Date Sampled:	09/06/05
Matrix:	AQ - Groundwater Filtered	Date Received:	09/07/05
Method:	SW846 8082 SW846 3510C	Percent Solids:	n/a
Project:	GESCT:01-ECQ 83 Elm St., Pittsfield, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ28569.D	1	09/14/05	CZ	09/12/05	OP9631	GYZ1187
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		47-131%
877-09-8	Tetrachloro-m-xylene	82%		47-131%
2051-24-3	Decachlorobiphenyl	96%		30-150%
2051-24-3	Decachlorobiphenyl	93%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	INF		
Lab Sample ID:	M50569-1A	Date Sampled:	09/06/05
Matrix:	AQ - Groundwater Filtered	Date Received:	09/07/05
		Percent Solids:	n/a
Project:	GESCT:01-ECQ 83 Elm St., Pittsfield, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lead	<5.0	5.0	ug/l	1	09/12/05	09/13/05	AC	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA6253
(2) Prep QC Batch: MP7625

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	POST STRIPPER		
Lab Sample ID:	M50569-2	Date Sampled:	09/06/05
Matrix:	AQ - Ground Water	Date Received:	09/07/05
Method:	EPA 624	Percent Solids:	n/a
Project:	GESCT:01-ECQ 83 Elm St., Pittsfield, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	D45167.D	1	09/11/05	AT	n/a	n/a	MSD2557
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	2.4	0.50	ug/l	
108-88-3	Toluene	1.2	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	8.9	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	3.4	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	91%		76-138%
2037-26-5	Toluene-D8 (SUR)	97%		86-114%
460-00-4	4-Bromofluorobenzene (SUR)	105%		76-114%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MID		
Lab Sample ID:	M50569-3	Date Sampled:	09/06/05
Matrix:	AQ - Ground Water	Date Received:	09/07/05
Method:	EPA 624	Percent Solids:	n/a
Project:	GESCT:01-ECQ 83 Elm St., Pittsfield, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	D45168.D	1	09/11/05	AT	n/a	n/a	MSD2557
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	2.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	99%		76-138%
2037-26-5	Toluene-D8 (SUR)	94%		86-114%
460-00-4	4-Bromofluorobenzene (SUR)	105%		76-114%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	EFF		
Lab Sample ID:	M50569-4	Date Sampled:	09/06/05
Matrix:	AQ - Effluent	Date Received:	09/07/05
Method:	EPA 624	Percent Solids:	n/a
Project:	GESCT:01-ECQ 83 Elm St., Pittsfield, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	D45157.D	1	09/10/05	AT	n/a	n/a	MSD2557
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	112%		76-138%
2037-26-5	Toluene-D8 (SUR)	97%		86-114%
460-00-4	4-Bromofluorobenzene (SUR)	99%		76-114%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	EFF		
Lab Sample ID:	M50569-4	Date Sampled:	09/06/05
Matrix:	AQ - Effluent	Date Received:	09/07/05
		Percent Solids:	n/a
Project:	GESCT:01-ECQ 83 Elm St., Pittsfield, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Petroleum Hydrocarbons	< 0.61	0.61	mg/l	1	09/12/05	BF	EPA 418.1

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	EFF		
Lab Sample ID:	M50569-4A	Date Sampled:	09/06/05
Matrix:	AQ - Groundwater Filtered	Date Received:	09/07/05
Method:	SW846 8082 SW846 3510C	Percent Solids:	n/a
Project:	GESCT:01-ECQ 83 Elm St., Pittsfield, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ28570.D	1	09/14/05	CZ	09/12/05	OP9631	GYZ1187
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		47-131%
877-09-8	Tetrachloro-m-xylene	81%		47-131%
2051-24-3	Decachlorobiphenyl	97%		30-150%
2051-24-3	Decachlorobiphenyl	101%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	EFF		
Lab Sample ID:	M50569-4A	Date Sampled:	09/06/05
Matrix:	AQ - Groundwater Filtered	Date Received:	09/07/05
		Percent Solids:	n/a
Project:	GESCT:01-ECQ 83 Elm St., Pittsfield, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	09/12/05	09/13/05	AC	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA6253
(2) Prep QC Batch: MP7625

RL = Reporting Limit

Accutest Laboratories

3

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST Laboratories

CHAIN OF CUSTODY

495 Tech Center West, Bldg. 1
Marlboro, MA 01752
508-481-6200 FAX: 508-481-6200

Accutest Job #: M50569

Client Information / **Facility Information**

EXXONMOBIL CORPORATION - Regional Laboratory Program Northeast

Client Information		Facility Information	
Consultant Company Name:	Groundwater + Environmental Ser	Project Name:	Mobil
Address:	425 Hayden Station Rd	Street:	83 Elm St
City / State / Zip:	Windsor CT	City / State:	Pittsfield MA
Project Contact:	L. Boucher	ExxonMobil Contact:	D. Baker
Sampler's Name:	J. Stanlewicz	ExxonMobil Contact Phone #:	617-381-2807
Phone # / Ext. / Fax #:	860-688-9023 111	Location ID#:	01-ECQ
AFE #:		PO#:	4505905243

Analytical Information: BTEX 8260 ☐ 524 ☒ 8021 ☐ 624 ☐ MTBE ☒ TBA ☐ Naphthalene ☐ Oxygenates ☐; VOC AQUEOUS 8260 ☐ 524 ☐ 624 ☐ STD ☐ TCL ☐ PPL ☐ MTBE ☐ TBA ☐ Oxygenates ☐; VOC SOIL 8260 ☐ STD ☐ TCL ☐ PPL ☐ MTBE ☐ TBA ☐ Oxygenates ☐ 5035/LOW ☐ 5035/MED ☐; VPH RANGES ☐ TARGETS ☐; EPH RANGES ☐ TARGET (PAH) ☐ DIESEL (PAH) ☐; TPH-GT/DEP ☐ TPH418.1 ☒; TPH-MAINE GRO ☐ DRO ☐; TPH-8015 GRO ☐ TPH-8015 DRO ☐; METALS TOTAL ☐ DISSOLVED ☐ HMLC ☐ HMS ☐; METALS TCLP ☐ SPLP ☐ HMS ☐ HMS ☐; Dis. PCB's; Dis. Lead

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	HCL	NaOH	HNO3	H2SO4	MEOH	Encore	Other	None	BTEX / MTBE	TPH418.1	Dis. PCB's	Dis. Lead
-1,1A	INF	9-6-05	1105	JMS	GW	7	✓		✓					✓	✓	✓	✓	✓
-2	Post Stripper	↓	1115	↓	↓	2	✓								✓			
-3	MID	↓	1050	↓	↓	2	✓								✓			
-4,4A	EFF	↓	1045	↓	↓	7	✓		✓					✓	✓	✓	✓	✓

Turnaround Time (Business days)

- ☒ Std. 10 Business Days
- ☐ 5 Day RUSH
- ☐ 4 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY

Approved By/Date: ______

Emergency T/A is for FAX or Lablink Data

Data Deliverable Information

- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ Full Deliverables
- ☐ Other
- ☐ FULL CLP
- ☐ State Forms
- ☐ Disk Deliverable Format ______

Site Specific QC Yes ☐ No ☐ If yes, indicate QC sample in Comments and submit triplicate volumes.

Comments / Remarks

Samples were field filtered
* 418 sample jars preserved @ lab w/ HCl 9/7/05 *
Loc. 6F, 4B, 2C2, 13A

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received by:	Relinquished by:	Date Time:	Received by:
1 [signature]	9-7-05 0600	1 Geo Fridge	2 L. Boucher	9-7-05 11:43	2 [signature]
Relinquished by: 3 B.C.	Date Time: 9-7-05 1840	Received by: 3 B.C.	Relinquished by: 4	Date Time:	Received by: 4
Relinquished by: 5	Date Time:	Received by: 5	Seal #	Preserved where applicable ☐	On Ice ☑ Temp. 2.7°

M50569: Chain of Custody
Page 1 of 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

September 14, 2001

Achebe Hope
ExxonMobil Refining and Supply Company
1190 West Park Dr.
Suite 450
Westborough, MA 01581

Re: NPDES Permit Exclusion for Groundwater Recovery and Treatment at the Former Mobil Service Station #01-ECQ located at 83-89 Elm Street, Pittsfield, Massachusetts.
NPDES Permit Exclusion Reference #01-191

Dear Mr. Hope:

Based on the information provided by David L. Reusswig of Groundwater & Environmental Services, Inc. (GES), you are granted, pursuant to Title 40 of the Code of Federal Regulations, Part 122.3(d), exclusion from the requirement for a permit under the National Pollutant Discharge Elimination System (NPDES), in order that the groundwater recovery and treatment may begin in a timely fashion at the referenced location.

Subject to other controls that may be established by the State of Massachusetts, and the Town of Pittsfield, you are authorized to discharge up to twenty-five (25) gallons per minute of treated water directly to the on-site storm drain which ultimately leads to the Housatonic River. Prior to discharge, the contaminated water must flow through a treatment system consisting of a groundwater depression leading to oil/water separator followed by sediment filters, an air stripper, and granular activated carbon filtration (sized appropriately for the anticipated flow). The discharge must be done in accordance with the following provisions:

1. No discharge of oil, sufficient to cause a sheen (as defined in 40 CFR 110), occurs to the drainage system. The discharge of a sheen of oil, or gasoline, constitutes an oil spill and must be reported, immediately, to the National Response Center (NRC) at (800) 424-8802.

2. Security provisions are maintained to assure that system failure, vandalism, or other incident will be addressed in a timely fashion, preventing the loss of oil or contaminated water to the stormwater drainage system.

3. Sampling and analysis, in accordance with EPA Methods, must be performed for the following chemicals with the listed limits being applicable:

Total Petroleum Hydrocarbons (TPH)	5 mg/L
Methyl Tertiary Butyl Ether (MTBE)	70 µg/L

Benzene	5 µg/L
Toluene	*
Ethyl Benzene	*
Xylenes	*
Total Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)	100 µg/L

The above standards are based upon submitted contaminant information. Should sampling indicate the presence of additional contaminants, those new contaminant levels should not exceed the Federal Drinking Water Standards or **100 µg/L**, whichever is lower, in the effluent.

Solids - These waters shall be free from floating, suspended, and settleable solids in concentrations or combinations that would impair any use assigned to this class, that would cause aesthetically objectionable conditions, or that would impair the benthic biota or degrade the chemical composition of the bottom.

Color and Turbidity - These waters shall be free from color and turbidity in concentrations or combinations that are aesthetically objectionable conditions or that would impair the use assigned to this class.

Laboratory samples must be obtained from the influent to treatment, and from the effluent to the storm drainage system once each day for the first, third, and sixth day of discharge. These samples must be analyzed with a 72-hour turnaround time and reviewed immediately by GES. If the system is working properly, sampling for the remainder of the month shall be weekly, and then monthly thereafter. The turnaround time for these samples shall ensure that no more than seven days pass between the sampling event and when the results are received and reviewed by GES.

If analysis indicates that the effluent limits have been exceeded, then the system must be shut down immediately and the problem corrected. Upon restarting the system, a sample must be taken and there must be 24-hour turnaround for the results. If the analysis indicates that the problem has been corrected, then the sampling schedule shall resume. If not, then the system shall be shut down again and repaired.

Analytical reports, with quality control information, are to be reported to the MA DEP Project Manager, and to the undersigned NPDES permit exclusion writer of this office, by the 28th of the following month, using the NPDES exclusion reference number assigned above.

4. You, or your representative, provide 24 hours notice of the anticipated start-up of discharge, if start-up begins after September 19, 2001

5. You, or your contractor, maintain copies of all analytical reports, and quality control information for a period of three (3) years from the date of the report.

Because the purpose of this exclusion from the regulations is for groundwater recovery and treatment, the exclusion will be in effect for four (4) months from system start-up. This exclusion may be adjusted verbally if operational conditions require (i.e., equipment failure or weather).

After four (4) months of discharge, it is expected that an application for a permanent NPDES wastewater permit will be submitted. Permanent NPDES permit application materials may be obtained from Ms. Olga Vergara of EPA's Boston office. She may be contacted at (617) 918-1519.

If any questions should arise, please do not hesitate to contact me at (617) 918-1456.

Sincerely,

Edward J. Gilbert
On-Scene Coordinator
Emergency Response Section (HBR)

cc: D. Corb
B. Kubit
Data Base Unit
D. Reusswig
EPA - MA Permits
MA DEP - OWM
MA DEP - Western Region
Groundwater & Environmental Services, Inc.

Groundwater
& Environmental Services, Inc.

425B Hayden Station Road • Windsor, Connecticut 06095 • (860) 688-9023 • FAX (860) 688-9278

August 21, 2003

Mr. Dean Tagliaferro
U.S. Environmental Protection Agency
10 Lyman Street
Pittsfield, MA 01201

Re: ***Request for NPDES Permit Exclusion Upgrade***
Former Mobil Service Station #01-ECQ
83-89 Elm St.
Pittsfield, MA

Dear Mr. Tagliaferro:

Groundwater & Environmental Services, Inc. (GES), on behalf of ExxonMobil Oil Corporation (ExxonMobil), hereby requests an increase in the discharge flow rate allowed by the current National Pollutant Discharge Elimination System (NPDES) Permit Exclusion to operate a Vacuum Enhanced Groundwater Extraction (VEGE) remedial system at the above-referenced Pittsfield, Massachusetts location. This request has been made as you directed during discussions with various GES personnel and Mr. David Baker of ExxonMobil.

The current discharge flow rate allowed by the NPDES Permit Exclusion is twenty-five gallons per minute (gpm) and will not be sufficient for the capture and hydraulic control of groundwater flow beneath the site. A much greater pumping rate, resulting in a greater discharge flow rate of treated water, will be required by the remedial system to reverse the groundwater gradient and prevent any infiltration of petroleum contained in the subsurface to the Housatonic River, which lies hydraulically downgradient. The increased pumping rate is intended to decrease the elevation of the water table to a level below that of the river bottom and the level to which EPA contractors will dewater the river during the dredging operation. A revised *NPDES Permit Exclusion Application* for the site is included as Attachment 1. Copies of the original *Request for NPDES Permit Exclusion*, dated August 31, 2001, and a letter from the EPA granting the Permit Exclusion, dated September 14, 2001, are included as Attachments 2 and 3, respectively.

While partial system operation is anticipated to begin on August 21, 2003, full system operation will begin on August 26. Remedial system operation is expected to continue for a minimum of two years at the site and may continue for up to five. The groundwater beneath the site is known to contain benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE). In addition, the remedial system will also be used to treat any dissolved lead and PCBs in the extracted groundwater. Groundwater and non-aqueous phase liquid (NAPL) petroleum extracted from groundwater wells will be pumped through the system at a rate of up to 100

gallons per minute (gpm). All liquids will be separated in an oil/water separator and the resulting NAPL will be pumped to an on-site product storage tank to await disposal by a licensed disposal facility. Water leaving the separator will be treated in an air stripper and two 1,000 pound granular activated carbon (GAC) units in series. Treated water will then be discharged to a storm drain, which will eventually discharge to the Housatonic River. A *Process Flow and Instrumentation Diagram* (P&ID) for the remedial system is included as Attachment 4.

The newly designed system will utilize both pneumatic and electric submersible pumps to remove NAPL and impacted groundwater from selected on site wells. The wells, depicted on the Site Plan in Attachment 5, were chosen based on their location relative to the former service station property, the Housatonic River, the presence of a deep NAPL plume in the subsurface and the direction of flow. Additional data for extraction well selection was collected through the use of the GES Data Acquisition and Processing Laboratory (DAPL) during a pump/pilot test conducted on July 29, 2003. Wells to be included in the extraction network and system operations are EXP-17 through 22 and GES-206, 219, 220, 222 and 231. Of the wells selected, the need for an electric or pneumatic submersible pump will be based on observed flow rates and the need for an increase in the extraction flow rate at each well.

In addition to the wells listed above, wells EXP-1 through 9, 10R, 11R, 12, 13R and 14 through 16 are also available for extraction. The initial configuration for extraction at system start up will include EXP-10R, 11R, 12, 13R and 14 through 16, and the addition of the other available wells will be considered based on observed groundwater flow and hydraulic containment beneath the site.

The treatment system equipment is housed in a forty foot cargo container that is locked at the open end when GES technicians are not on site. All system equipment not housed in the trailer will be housed within the former service station building for security and proper storage purposes. As temperatures decrease in the fall and winter months, heat tape and other temperature control devices will be installed to prevent freezing of system components and allow continued system operation.

Several engineering controls are in place in the system to prevent a release of recovered product or impacted groundwater, including those listed on the P&ID. Engineering controls for spill prevention include high water and product level alarms and shut off switches and high pressure shut off switches in the air stripper and GAC units. As discussed previously, GES will install an emergency light on the exterior of the system enclosure to indicate system shutdown. Placards on the enclosure will then alert site workers to the situation and minimize system downtime. GES and ExxonMobil will evaluate treatment system operation and effectiveness of the emergency light to determine whether or not an additional measure must be taken to further minimize system downtime, such as some form of telemetry. In the event of system operational problems at the site, GES personnel and any necessary subcontractors are on call for rapid response. A brief communications plan and organizational chart for site personnel will be provided to EPA personnel for fast, efficient communication in the event that such a response should prove necessary. Revised versions of the figures in Attachments 4 and 5 will be provided at that time as well.

Per our correspondence, daily operation and Maintenance (O&M) visits will be conducted during the first week of system operation to ensure proper system operation and maximized system run time. During those visits, a GES technician will sample the system effluent on days one, three and six of system operation for the required discharge parameters. O&M visits will decrease to a frequency of three times per week through the completion of the first month of system operation, during which effluent samples will be collected on a weekly basis. O&M visits may then decrease to a frequency of twice per month, or every other week, and as needed based on observations made during the first month of operation.

Upon completion of the first month of operation, GES, on behalf of ExxonMobil, will collect system effluent samples for analysis once per month to ensure that the discharge is in compliance with the standards set in the NPDES Permit Exclusion. It is understood that PCBs, resulting from a GE impact to the area soils, and lead will be added to the current list of discharge parameters that includes BTEX and MTBE.

Please contact the undersigned at (860) 688-9023, extension 105, with any questions or comments or should you require any additional information.

Sincerely,
GROUNDWATER & ENVIRONMENTAL SERVICES, INC.

Daniel J. Smith
Project Manager
Project Environmental Scientist

DJS/ljb
L:\Projects\Mobil\Pittsfield 01-BCQ\Correspondence\NPDES Requests\NPDES upgrade Request 2003.doc

c. Mr. David Baker – ExxonMobil Oil Corporation

NPDES PERMIT EXCLUSION APPLICATION

U.S. EPA - Region I, One Congress Street, Suite 1100 (HBR), BOSTON, MA 02114

HBR CASE NO.

NPDES Exclusion Ref.#

Received: / / Military Time: GRANTED BY:

A) REPORTER INFO.

Requested by: Daniel Smith

Organization Name: Groundwater & Environmental Services, Inc.

Address: 425B Hayden Station Road

City: Windsor | County: Hartford | State: CT

Zip: 06095 | Phone No. (860) 688-9023 | Ext: 105

B) DISCHARGER/ PERMITTEE/ OWNER

Same As Above In A | Name/Company Name: ExxonMobil Oil Corporation

Address: 52 Beacham Street | Contact: David Baker

City: Everett | County: | State: MA

Zip: 02149 | Phone No. (617) 381-2807 | Ext:

C) DISCHARGE INCIDENT LOCATION

Same As Above In B | Site Location Name: Former Mobil Service Station No. 01-ECQ

Address: 83 Elm Street

City: Pittsfield | County: Berkshire | State: MA

Zip: 01201 | Phone No. N/A | Ext:

D) DATES

Discharge Start Date: August 21, 2003 | Discharge Duration: Unknown, possible 1 to 5 years

E) GROUND WATER CONT.

	Contaminant 1	Contaminant 2	Contaminant 3
	Benzene	Toluene	Ethylbenzene
Approx.			
	Contaminant 4	Contaminant 5	Contaminant 6
	Xylenes	MTBE	Lead
Approx.			

F) TREATMENT SYSTEM

Treatment Equipment: (check applicable)

Frac Tank		Airstripper	X	Oil/Water Separator	X
GAC Filter	X	Bag Filter	X		
Equalization Tanks:		Other => Describe:			

Written Description of System: Vacuum Enhanced Groundwater Extraction remedial system will treat impacted groundwater through an oil/water separator; separated product will flow to an on site product storage tank for later removal by a licensed disposal facility. Impacted groundwater will then flow through sediment filters, an air stripper and (2) 1,000-lb liquid phase Granular Activated Carbon units. Treated groundwater will be discharged to the storm drain before it flows to the Housatonic River.

G) RECEIVING WATERS

Discharge VIA: (check applicable)

Direct	Storm Drain X	Wetlands	Unnamed River/Brook	OverLand
Within Facility		Other => Describe:		

Receiving Waterway Name: Housatonic River

H) PURPOSE OF DISCHARGE

Dewatering Activity: (check applicable)

UST Replacement/Removal		Contaminated Excavation	Pump Test
Recovery & Treatment	X	Other => Describe	

Description: Treatment of residual impacted groundwater and soil vapors and recovery of gasoline from a former gasoline service station.

I) FLOW

Maximum Flow Rate: 100 GPM

J) INFO

Site ID #: 01-ECQ

Agency Name: ExxonMobil Oil Corporation | Contact: David Baker

Agency Name: | Contact:

United States Environmental Protection Agency
EPA New England
One Congress Street, Suite 1100
Boston, MA 02114-2023

August 26, 2003

Mr. David Baker
ExxonMobil Oil Corporation
52 Beacham Street
Everett, MA 02149

RE: NPDES Permit Exclusion Modification
Former Mobil Service Station #01-ECQ
83-89 Elm Street, Pittsfield, MA
NPDES Permit Exclusion Reference #01-191

Based on the information provided on August 21, 2003 by Groundwater and Environmental Services (GES) on behalf of ExxonMobil, you are granted, pursuant to Title 40 Code of Federal Regulations, Part 122.3(d), a modification to NPDES Permit Exclusion Reference #01-191, which was issued to ExxonMobil on Septeber14, 2001. The existing permit exclusion is hereby modified as follows:

1. The maximum flow rate for the proposed new system is 120 gallons per minute (gpm).

2. Sampling and analysis, in accordance with EPA methods, must be performed for the new system for the following chemicals with the listed limits being applicable:

Total Petroleum Hydrocarbons	5 mg/l
Methyl Tertiary Butyl Ether (MTBE)	70 µg/l
Lead	50 µg/l
Total PCBs	0.5 µg/l
Benzene	5 µg/l
Toluene	*
Ethyl Benzene	*
Xylenes	*
*Total benzene, toluene, ethyl benzene and xylenes (BTEX)	100 µg/l

3. For the new system, laboratory samples must be obtained, at a minimum, from influent, from between the two carbon units, and from the effluent to the storm drain system once each day for the first, third, and sixth days of discharge. These samples must be analyzed with a 72-hour turnaround time and reviewed immediately by GES. If the system is working properly and all effluent limits have been met, sampling for the remainder of the month shall be weekly and then

monthly thereafter. The turnaround time for these samples shall ensure that no more than seven days pass between the sampling event and when the results are received and reviewed by GES.

If the analyses indicate that the effluent limits have been exceeded, then EPA needs to be notified immediately. Based on the analytical data and on information provided by GES as to the potential cause of the exceedence, EPA will determine if the system needs to be shut down and the problem corrected or if the system can remain operational while corrective actions are performed. EPA reserves the right to require additional actions as necessary to ensure compliance with the permit exclusion requirements.

4. Until the use of the existing 25 gpm groundwater recovery and treatment system is terminated, GES shall continue with the monthly sampling requirements set for this system in the September 14, 2001 permit exclusion letter.

All existing requirements contained in the September 14, 2001 permit exclusion letter, unless modified by this permit exclusion modification, are still applicable.

If you have any questions, please contact me at (413) 236-0969.

Sincerely,

Dean Tagliaferro

Dean Tagliaferro

cc: Mr. Daniel Smith, GES, Windsor, CT ✓
Mr. Bruce Collingwood - Department of Public Works, City of Pittsfiled
Ms. Sue Steenstrup - Massachusetts DEP, Western Regional Office
Mr. Ed Weagle - Massachusetts DEP, Western Regional Office
Mr. John F. Hackler, USEPA NPDES Permit Unit (CPE)

Leni-Sarah Boucher

From: Tagliaferro.Dean@epamail.epa.gov
Sent: Thursday, October 06, 2005 10:11 AM
To: Leni-Sarah Boucher
Cc: Herb Woike
Subject: Re: Former Mobil Station 01-ECQ, 83-89 Elm Street, Pittsfield, MA

This email confirms that as an EPA OSC, I approve your request to allow the system to remain operational between October 10 and the date of submittal of the remaining analytical data. Please submit the remaining analytical data in a timely manner.

Leni-Sarah Boucher <LBoucher@gesonline.com>
10/06/2005 10:02 AM

To: Dean Tagliaferro/R1/USEPA/US@EPA
cc: Herb Woike <HWoike@gesonline.com>
Subject: Former Mobil Station 01-ECQ, 83-89 Elm Street, Pittsfield, MA

Dean-

As we discussed, Groundwater & Environmental Services Inc. (GES), on behalf of ExxonMobil Oil Corporation (ExxonMobil) is preparing the Notice of Intent (NOI) for submittal of a Remediation General Permit (RGP) for the former Mobil station located at 83-89 Elm Street in Pittsfield, MA. According to a letter dated September 15, 2005 issued by the USEPA, the deadline for submittal of the NOI is October 10, 2005. The NOI states specific analytical parameters that must be analyzed and submitted, however, several of these are compounds that are not a concern at this site and have not been analyzed for previously. Therefore, GES will be collecting samples for these parameters with expedited turn-around-time from the laboratory. The NOI will be submitted on October 10 with the analytical results collected to date. Once the remaining laboratory data is received, it will be forwarded to the USEPA as an addendum to the NOI.

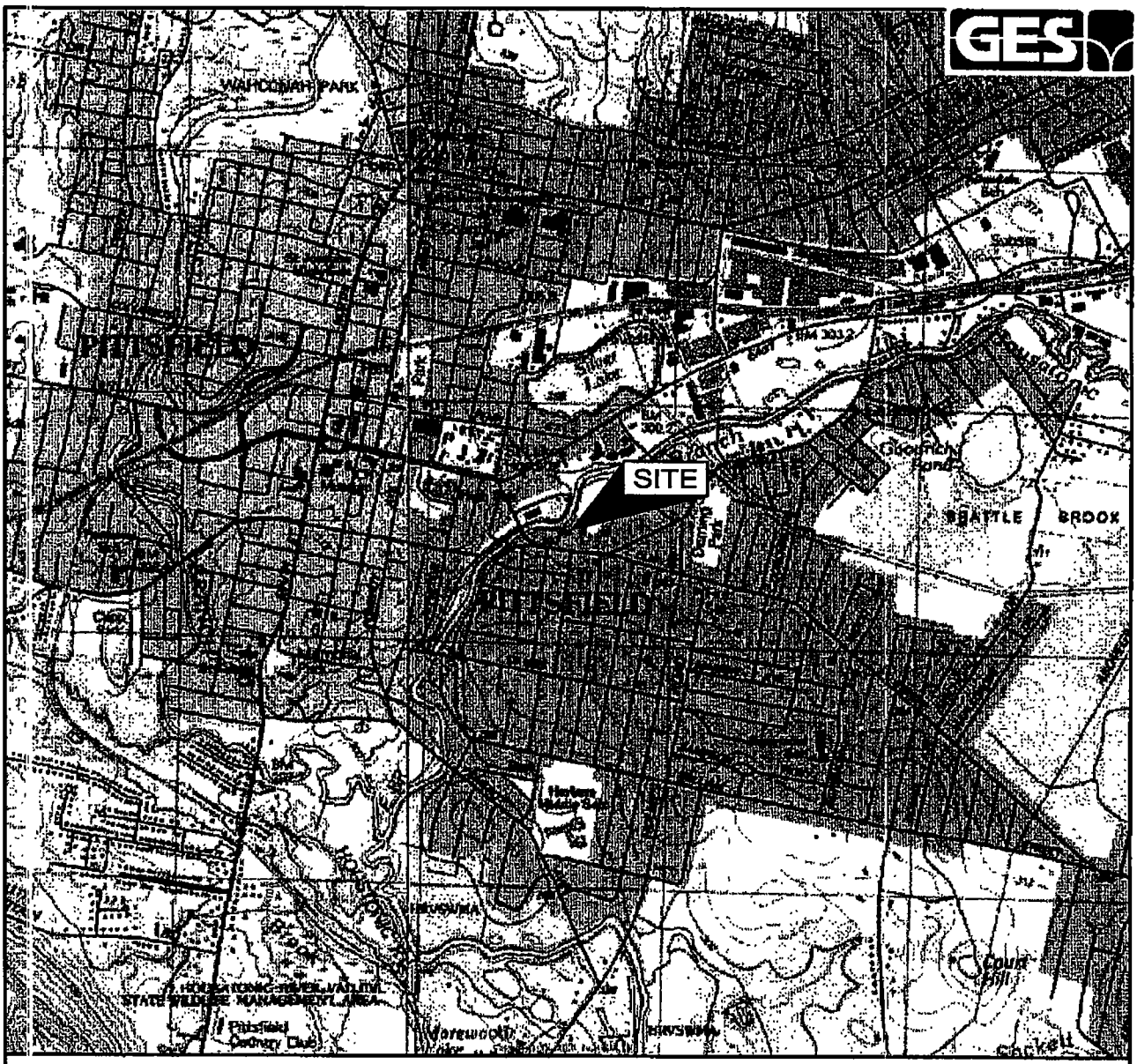
In accordance with the new requirements, a remediation system is not considered in compliance with the regulations if a discharge occurs and the

NOI (or a full NPDES application) has not been submitted to the USEPA. The only exception to this is where an EPA On-Scene Coordinator determines an exclusion is necessary pursuant to 40 CFR Part 300 (the National Oil and Hazardous Substances Pollution Contingency Plan) or 33 CFR 153.10(e) (Pollution by Oil and Hazardous Substances). Because of the sensitive nature of this project, GES is requesting that an exclusion be issued so that the system can remain operational between October 10 and the date of submittal of the remaining analytical data.

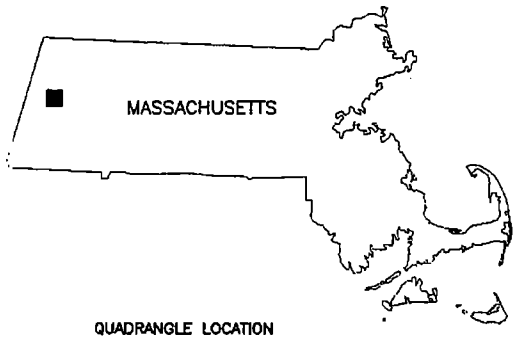
GES appreciates your assistance with this project and will notify you of all correspondence related to the NOI and the subsequent RGP. Your response to this email will be attached to the NOI as documentation of our correspondence regarding this issue.

Sincerely,

Leni-Sarah Boucher
Project Manager
Groundwater & Environmental Services, Inc.
425B Hayden Station Road
Windsor, CT 06095
(860) 688-9023 ext. 111



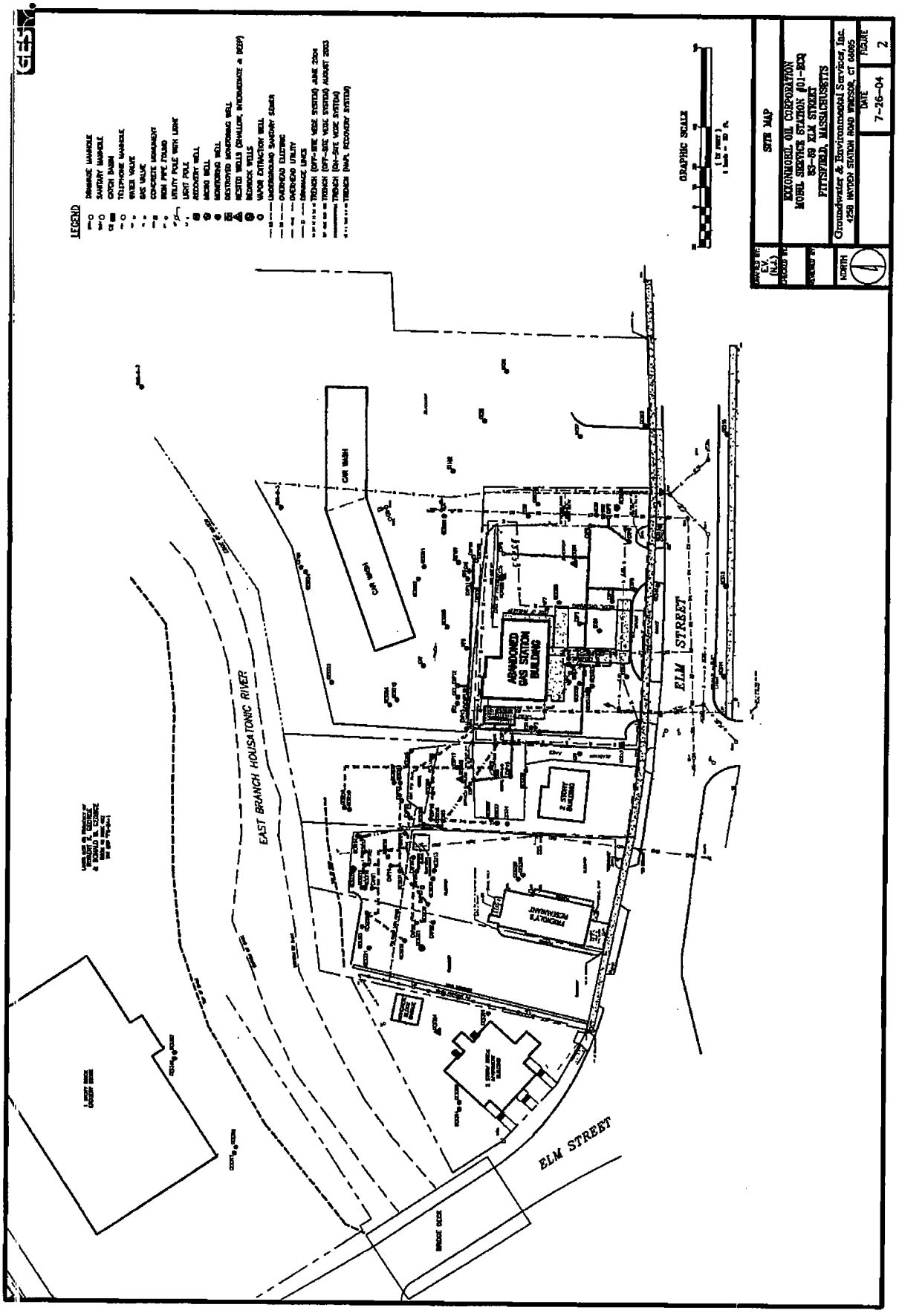
SOURCE: USGS 7.5 MINUTE SERIES
TOPOGRAPHIC QUADRANGLE 1988
PITTSFIELD EAST, MASSACHUSETTS
CONTOUR INTERVAL = 6 METERS



QUADRANGLE LOCATION

DRAFTED BY: E.V. (N.J.)	SITE LOCUS MAP
CHECKED BY:	EXXONMOBIL OIL CORPORATION FORMER MOBIL SERVICE STATION #01-ECQ 83-89 ELM STREET PITTSFIELD, MASSACHUSETTS
REVIEWED BY:	Groundwater & Environmental Services, Inc. 425B HAYDEN STATION ROAD, WINDSOR, CT 06095
NORTH	SCALE IN FEET: 0 — 2000 / DATE: 12-2-03 / FIGURE: 1

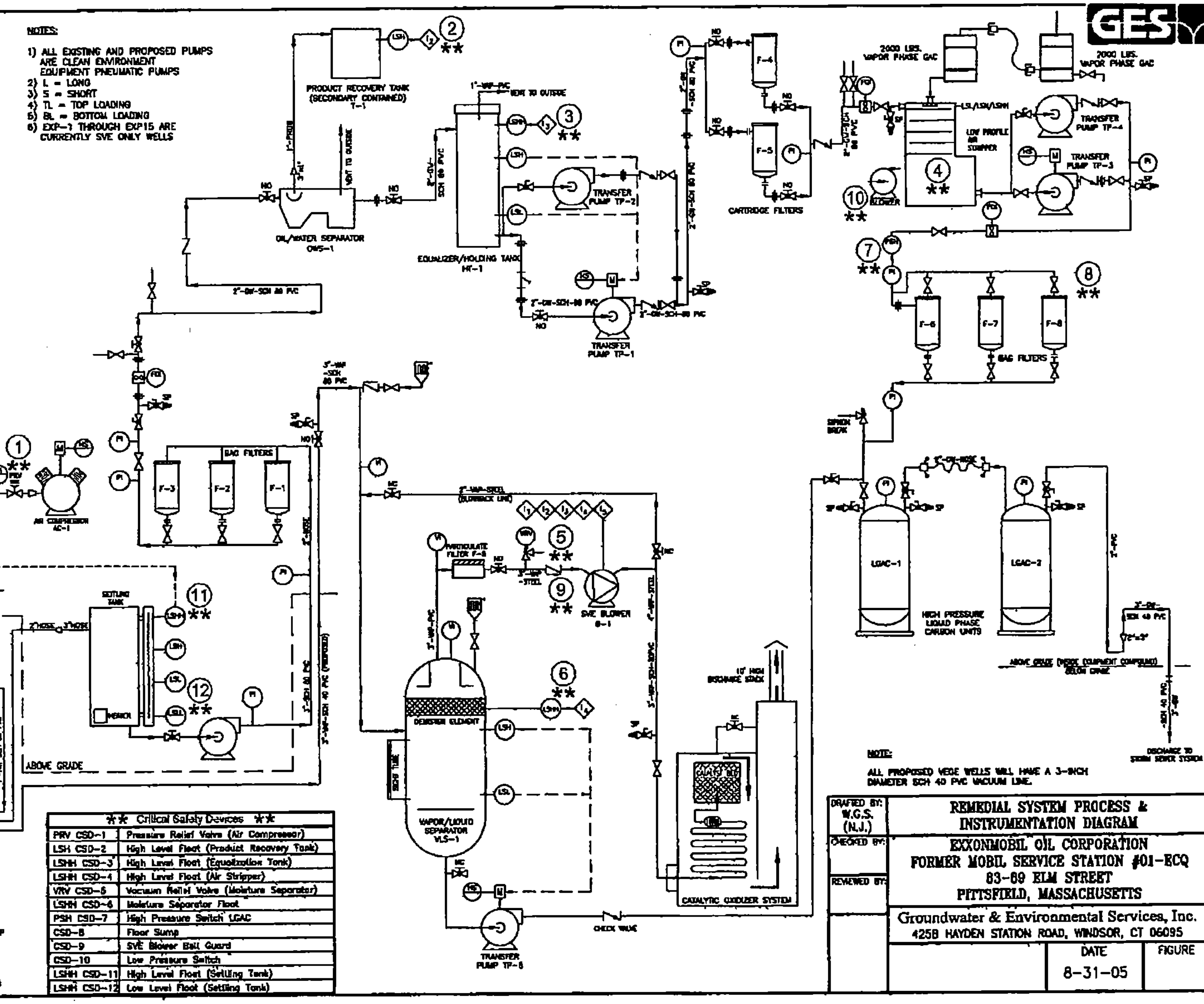
M:\Graphics\1500-Windsor\MOBIL\Pittsfield, MA 01-ECQ\01-ECQ Pittsfield SLM.dwg, EVega


LEGEND
DRAINAGE MANHOLE
SANITARY MANHOLE
CATCH BASIN
TELEPHONE MANHOLE
WATER VALVE
GAS VALVE
CONCRETE MONUMENT
IRON PIPE FOUND
UTILITY POLE WITH LIGHT
LIGHT POLE
RECOVERY WELL
MONITORING WELL
DESTROYED MONITORING WELL
ABANDONED WELLS (SHALLOW, INTERMEDIATE & DEEP)
BEDROCK WELLS
VAPOR EXTRACTION WELL
UNDERGROUND SANITARY SEWER
OVERHEAD ELECTRIC
OVERHEAD UTILITY
DRAINAGE LINES
TRENCH (OFF-SITE VESE SYSTEM) JUNE 2004
TRENCH (OFF-SITE VESE SYSTEM) AUGUST 2003
TRENCH (ON-SITE VESE SYSTEM)
TRENCH (NAPL RECOVERY SYSTEM)
GRAPHIC SCALE
SITE MAP
EXXONMOBIL OIL CORPORATION
MOBIL SERVICE STATION #01-BCQ
83-89 ELM STREET
PITTSFIELD, MASSACHUSETTS
Groundwater & Environmental Services, Inc.
4258 NEWTON STATION ROAD WINDSOR, CT 06095
DATE
7-26-04
FIGURE
2
NORTH
CAR WASH
ABANDONED GAS STATION BUILDING
ELM STREET
EAST BRANCH HOUSATONIC RIVER
ELM STREET
BRIDGE DECK

Well ID	GW Extracting	Pump Specification	SVE
EXP1	X		X
EXP2	X		X
EXP3	X		X
EXP4	X		X
EXP5	X		X
EXP6	X		X
EXP7	X		X
EXP8	X		X
EXP9	X		X
EXP10	X		X
EXP11	X		X
EXP12	X		X
EXP13	X		X
EXP14	X		X
EXP15	X		X
EXP17	X	AP-3, L, BL	X
EXP18		AP-3, L, BL	X
EXP19		AP-3, S, BL	X
EXP20		AP-3, L, BL	
EXP21	X	AP-4, L, TL	
EXP22	X	AP-3, L, BL	X
GES216	X	Skimmer	
GES217	X	Skimmer	
GES219		AP-3, L, BL	
GES220	X	AP-3, L, BL	X
GES222		AP-4, S, TL	
GES227		AP-3, L, BL	
GES231	X	AP-4, S, TL	
EXP23	X	AP-4, S, TL	X
EXP24	X	AP-4, S, TL	X
EXP25	X	AP-4, S, TL	
EXP26	X	AP-4, S, TL	
EXP27	X	AP-4, S, TL	
EXP28	X	AP-4, S, TL	
EXP29	X	AP-4, S, TL	

NOTES:

1) ALL EXISTING AND PROPOSED PUMPS ARE CLEAN ENVIRONMENT EQUIPMENT PNEUMATIC PUMPS
2) L = LONG
3) S = SHORT
4) TL = TOP LOADING
5) BL = BOTTOM LOADING
6) EXP-1 THROUGH EXP15 ARE CURRENTLY SVE ONLY WELLS



** Critical Safety Devices **	
PRV CSD-1	Pressure Relief Valve (Air Compressor)
LSH CSD-2	High Level Float (Product Recovery Tank)
LSHH CSD-3	High Level Float (Equalization Tank)
LSHH CSD-4	High Level Float (Air Stripper)
VRV CSD-5	Vacuum Relief Valve (Moisture Separator)
LSHH CSD-6	Moisture Separator Float
PSH CSD-7	High Pressure Switch LGAC
CSD-8	Floor Sump
CSD-9	SVE Blower Belt Guard
CSD-10	Low Pressure Switch
LSHH CSD-11	High Level Float (Settling Tank)
LSHH CSD-12	Low Level Float (Settling Tank)

NOTE:

ALL PROPOSED VEGE WELLS WILL HAVE A 3-INCH DIAMETER SCH 40 PVC VACUUM LINE.

DRAFTED BY: W.G.S. (N.J.)
CHECKED BY:
REVIEWED BY:

REMEDIAL SYSTEM PROCESS & INSTRUMENTATION DIAGRAM

EXXONMOBIL OIL CORPORATION
FORMER MOBIL SERVICE STATION #01-ECQ
83-89 ELM STREET
PITTSFIELD, MASSACHUSETTS

Groundwater & Environmental Services, Inc.
425B HAYDEN STATION ROAD, WINDSOR, CT 06095

DATE 8-31-05 FIGURE