PREPARED FOR: THE ENVIRONMENTAL PROTECTION AGENCY
PREPARED ON BEHALF OF: KODIAK CORPORATION

NOTICE OF INTENT FOR THE REMEDIATION GENERAL PERMIT

BRIDGE NO. D-03-013 (AVF)

ROUTE 35 (WATER STREET)
OVER THE WATERS RIVER

DANVERS, MA

PREPARED BY:

65 Glenn Street, Lawrence, MA 01843
July 7, 2010

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

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

a) Name of **facility/site**: RTE 35 OVER WATERS RIVER		**Facility/site** ~~mailing~~ address: (SITE ADDRESS)	
Location of **facility/site**: longitude: -70.92035° latitude: 42.54612°	Facility SIC code(s): 1611, 1622	Street: 128 WATER STREET	
b) Name of **facility/site owner**: MASSACHUSETTS DEPARTMENT OF TRANSPORTATION		Town: DANVERS	
Email address of facility/site owner: SUSAN.CRANNEY@STATE.MA.US		State: MASSACHUSETTS	Zip: 01923 / County: ESSEX
Telephone no. of facility/site **owner**: 978-767-4188			
Fax no. of facility/site **owner**: 978-548-6498		**Owner** is (check one): 1. Federal____ 2. State/Tribal ✓ 3. Private_____ 4. Other ____ if so, describe:_____	
Address of **owner** (if different from site):			
Street: 10 PARK PLAZA, SUITE 3170			
Town: BOSTON	State: MA	Zip: 02116	County: SUFFOLK
c) Legal name of **operator**: KODIAK CORPORATION	**Operator** telephone no: 978-685-0777		
	Operator fax no.: 978-794-1793	**Operator** email: RCUMMINGS@TECHMASS.COM	
Operator contact name and title: ROD CUMMINGS, PROJECT MANAGER			
Address of **operator** (if different from owner): (MAILING ADDRESS)	Street: 65 GLENN STREET		
Town: LAWRENCE	State: MA	Zip: 01843	County: ESSEX

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

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y___ N_✓_
If Y, please list:
1. site identification # assigned by the state of NH or MA:_____
2. permit or license # assigned:_____
3. state agency contact information: name, location, and telephone number:

f) Is the site/facility covered by any other EPA permit, including:
1. Multi-Sector General Permit? Y___ N_✓_,
if Y, number:_____
2. Final Dewatering General Permit? Y___ N_✓_,
if Y, number:_____
3. EPA Construction General Permit? Y___ N_✓_,
if Y, number: ____
4. Individual NPDES permit? Y___ N_✓_,
if Y, number:_____
5. any other water quality related individual or general permit? Y_✓_
N___, if Y, number: P24 550

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y____ N_✓_

h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.

Activity Category	**Activity Sub-Category**
I - Petroleum Related Site Remediation	A. Gasoline Only Sites ____ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ____ C. Petroleum Sites with Additional Contamination ____
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites ____ B. VOC Sites with Additional Contamination ____ C. Primarily Heavy Metal Sites ____
III - Contaminated Construction Dewatering	A. General Urban Fill Sites _✓_ B. Known Contaminated Sites ____

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ____ B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites ____ C. Hydrostatic Testing of Pipelines and Tanks ____ D. Long-Term Remediation of Contaminated Non-residential Sumps and Dikes ____ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ____

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

a) Describe the discharge activities for which the owner/applicant is seeking coverage:
DEWATERING CONSTRUCTION SITE FOR REMEDIATION OF CONTAMINATES WITH BAKER CORP. FILTRATION SYSTEM

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 1.07 ft^3/s Is maximum flow a **design value**? Y ✓ N____
Average flow (include units) 0.45 ft^3/s Is average flow a design value or estimate? DESIGN

3) Latitude and longitude of each discharge within 100 feet:
pt.1: lat. 42.54636° long. -70.92039°; pt.2: lat.____ long.____;
pt.3: lat.____ long.____; pt.4: lat.____ long.____;
pt.5: lat.____ long.____; pt.6: lat.____ long.____;
pt.7: lat.____ long.____; pt.8: lat.____ long.____; etc.

4) If hydrostatic testing, total volume of the discharge (gals): 288,000 GAL/day

5) Is the discharge intermittent ✓ or seasonal____?
Is discharge ongoing? Y ✓ N____

c) Expected dates of discharge (mm/dd/yy): start JULY, 2010 end JUNE 2012

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). (SEE ATTACHED)

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
1. Total Suspended Solids (TSS)			✓	1		2540D		33000		33000	
2. Total Residual Chlorine (TRC)			✓	1		4500CIG		500		<500	
3. Total Petroleum Hydrocarbons (TPH)		✓									
4. Cyanide (CN)	57125		✓	1		4500CNE		10		<10	
5. Benzene (B)	71432		✓	1		8260B		1		<1	
6. Toluene (T)	108883		✓	1		8260B		1		<1	
7. Ethylbenzene (E)	100414		✓	1		8260B		1		<1	
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207		✓	1		8260B		1		<1	
9. Total BTEX [2]	n/a		✓	1		8260B		4		<4	
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934		✓	1		8260B		2		<2	
11. Methyl-tert-Butyl Ether (MtBE)	1634044		✓	1		8260B		5		<5	
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650		✓	1		8260B		30		<30	

* Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

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

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

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
13. tert-Amyl Methyl Ether (TAME)	9940508		✓	1		8260B		5		<5	
14. Naphthalene	91203		✓	2		8260E 8270D		5		<2.55	
15. Carbon Tetrachloride	56235		✓	1		8260B		2		<2	
16. 1,2 Dichlorobenzene (o-DCB)	95501		✓	2		8260B 8270D		1		<1	
17. 1,3 Dichlorobenzene (m-DCB)	541731		✓	2		8260B 8270D		1		<1	
18. 1,4 Dichlorobenzene (p-DCB)	106467		✓	2		8260B 8270D		1		<1	
18a. Total dichlorobenzene			✓	2		8260B/8270D		3		<3	
19. 1,1 Dichloroethane (DCA)	75343		✓	1		8260B		2		<2	
20. 1,2 Dichloroethane (DCA)	107062		✓	1		8260B		2		<2	
21. 1,1 Dichloroethene (DCE)	75354		✓	1		8260B		1		<1	
22. cis-1,2 Dichloroethene (DCE)	156592		✓	1		8260B		2		<2	
23. Methylene Chloride	75092		✓	1		8260B		5		<5	
24. Tetrachloroethene (PCE)	127184		✓	1		8260B		2		<2	
25. 1,1,1 Trichloro-ethane (TCA)	71556		✓	1		8260B		2		<2	
26. 1,1,2 Trichloro-ethane (TCA)	79005		✓	1		8260B		2		<2	
27. Trichloroethene (TCE)	79016		✓	1		8260B		2		<2	

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
28. Vinyl Chloride (Chloroethene)	75014		✓	1		8260B		2		<2	
29. Acetone	67641		✓	1		8260B		10		<10	
30. 1,4 Dioxane	123911	✓									
31. Total Phenols	108952		✓	1		8270D		1		<1	
32. Pentachlorophenol (PCP)	87865		✓	1		8270D		5		<5	
33. Total Phthalates (Phthalate esthers) [4]			✓	1		8270D		15		<15	
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817		✓	1		8270D		5		<5	
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		✓									
a. Benzo(a) Anthracene	56553		✓	1		8270D		0.1		0.1	
b. Benzo(a) Pyrene	50328		✓	1		8270D		0.1		<0.1	
c. Benzo(b)Fluoranthene	205992		✓	1		8270D		0.1		<0.1	
d. Benzo(k)Fluoranthene	207089		✓	1		8270D		0.1		<0.1	
e. Chrysene	21801		✓	1		8270D		0.1		<0.1	
f. Dibenzo(a,h)anthracene	53703		✓	1		8270D		0.1		<0.1	
g. Indeno(1,2,3-cd) Pyrene	193395		✓	1		8270D		0.1		<0.1	
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		✓									

[4] The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
h. Acenaphthene	83329		✓	1		8270D		0.1		<0.1	
i. Acenaphthylene	208968		✓	1		8270D		0.1		<0.1	
j. Anthracene	120127		✓	1		8270D		0.1		<0.1	
k. Benzo(ghi) Perylene	191242		✓	1		8270D		0.1		<0.1	
l. Fluoranthene	206440		✓	1		8270D		0.1		0.1	
m. Fluorene	86737		✓	1		8270D		0.1		<0.1	
n. Naphthalene	91203		✓	2		8270D, 8260B		5		<2.55	
o. Phenanthrene	85018		✓	1		8270D		0.1		<0.1	
p. Pyrene	129000		✓	1		8270D		0.1		0.1	
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.		✓	1		608		0.7		<0.7	
38. Chloride	16887006	✓									
39. Antimony	7440360		✓	1		200.8		3		3	
40. Arsenic	7440382		✓	1		200.8		59		59	
41. Cadmium	7440439		✓	1		200.8		0.3		0.3	
42. Chromium III (trivalent)	16065831		✓	1		200.8		10		<10	
43. Chromium VI (hexavalent)	18540299		✓	1		7196A		10		<10	
44. Copper	7440508		✓	1		200.8		6		6	
45. Lead	7439921		✓	1		200.8		1.2		1.2	
46. Mercury	7439976		✓	1		200.8		0.1		<0.1	
47. Nickel	7440020		✓	1		200.8		13		13	
48. Selenium	7782492		✓	1		200.8		33		33	
49. Silver	7440224		✓	1		200.8		0.8		0.8	
50. Zinc	7440666		✓	1		200.8		5		<5	
51. Iron	7439896		✓	1		200.8		160		160	
Other (describe): chromium			✓	1		200.8		3		3	

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)

c) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

Step 1: Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y ✓ N____	If yes, which metals? ARSENIC, CADMIUM, COPPER, SELENIUM
Step 2: For any metals which 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? Metal: ARSENIC DF: N/A Metal: CADMIUM DF: N/A Metal: COPPER DF: N/A Metal: SELENIUM DF: N/A Etc. UNABLE TO CALCULATE DF, SINCE RIVER IS TIDAL & NO AVG. FLOW RATE AVAILABLE	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)? N/A Y____ N____ If Y, 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:

(SEE ATTACHED TREATMENT SYSTEM SPECIFICATIONS, BY BAKER CORP.)

b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	Oil/water separator	Equalization tanks	Bag filter	GAC filter
	Chlorination	De-chlorination	Other (please describe): MODERN FIXED AXLE TANK			

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 200 gpm Maximum flow rate of treatment system 480 gpm
Design flow rate of treatment system 200 gpm

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

ACTIVATED CARBON

BEVERLY HARBOR, LAT=42.5395°, LONG=-70.868°

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

a) Identify the discharge pathway:	Direct to receiving water	Within facility (sewer)	Storm drain	Wetlands	Other (describe):
FROM CONSTRUCTION OF BRIDGE TO WATERS RIVER	✓				

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
TREATED WATER ON SITE IS DISCHARGED TO THE WATERS RIVER, WHICH DRAINS TO DANVERS RIVER INLET & BEVERLY HARBOR

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: (SEE ATTACHED)
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 CATEGORY 5

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water N/A - TIDAL FLOW 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? Y ✓ N ____ If yes, for which pollutant(s)?
FECAL COLIFORM
Is there a final TMDL? Y ____ N ✓ If yes, for which pollutant(s)? ____

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A ✓ B ____ C ____ D ____ E ____ F ____

b) If you selected criteria D or F, has consultation with the federal services been completed? Y____ N____ Underway____

c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y____ N ✓

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

I ____ 2 ✓ 3 ____

f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

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.

(SEE ATTACHED)

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: RTE. 35 OVER WATERS RIVER

Operator signature:

Printed Name &Title: ROD Cummings P.M.

Date:

WATER FLOW SCHEMATIC

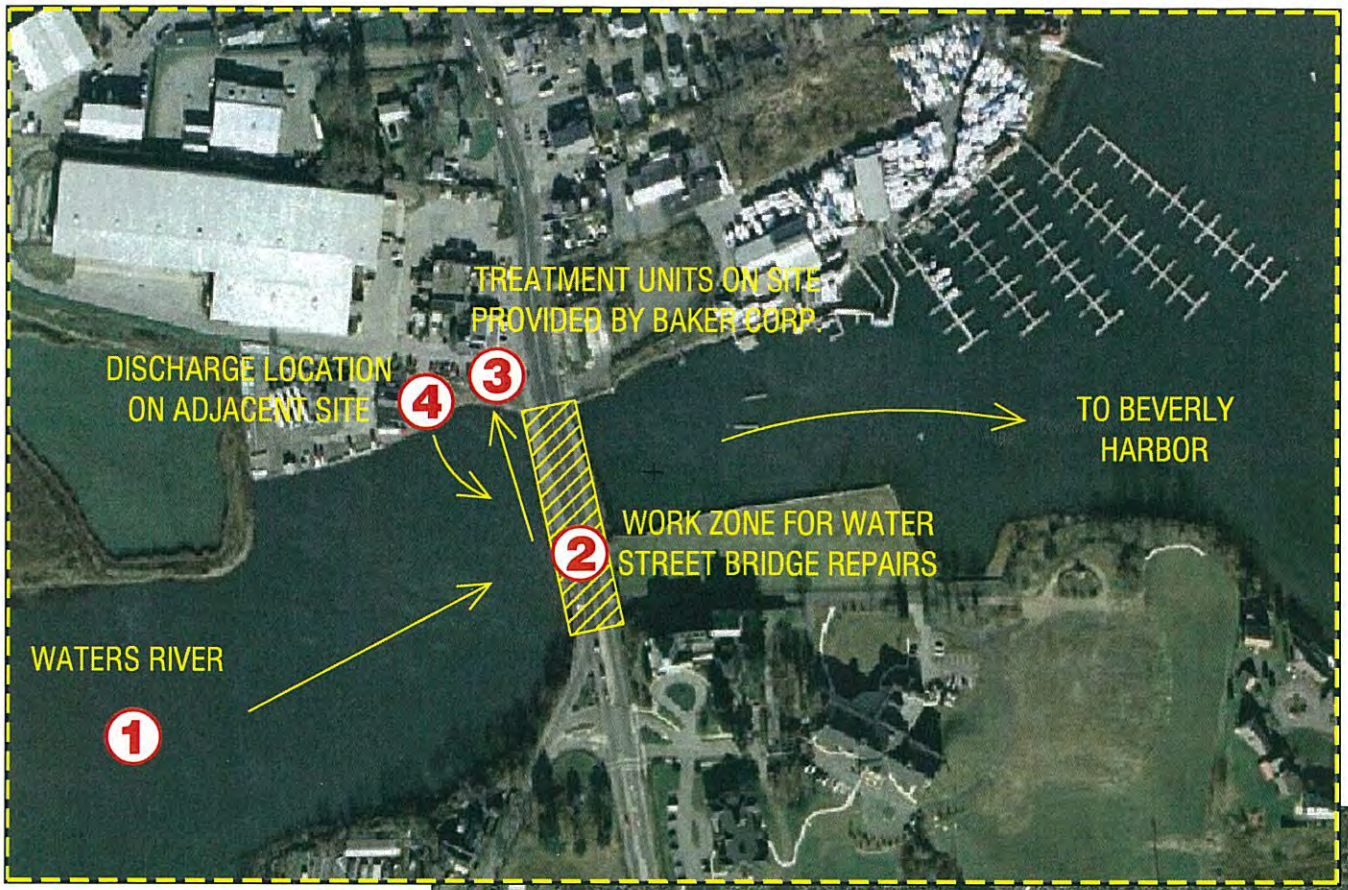
KODIAK, CORPORATION
65 GLENN STREET
LAWRENCE, MASSACHUSETTS 01843
TEL 978.685.0777 | FAX 978.794.1793

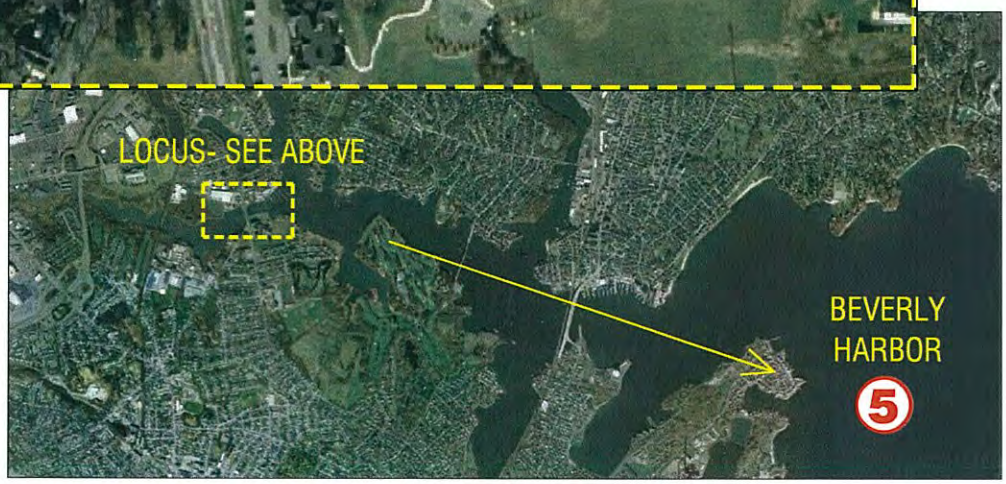
JOB: WATER STREET, DANVERS, MA

JOB NUMBER: T0017.28

SKETCH TITLE: WATER FLOW SCHEMATIC

DATE: JULY 7, 2010





WATER FLOW SCHEMATIC
WATER STREET, DANVERS, MA

SCALE: NTS

1. SOURCE OF INTAKE WATER
2. CONTRIBUTING FLOW FROM CONSTRUCTION
3. TREATMENT UNITS
4. DISCHARGE POINT
5. RECEIVING WATER

LABORATORY REPORT FOR INITIAL WATER TESTING

eastern analytical

professional laboratory services

Lonna Blais
Contractors Risk Management
PO BOX 211
Concord , NH 03302

ACCREDITED IN ACCORDANCE WITH nelac

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 80472
Client Identification: NOI RGP - Appendix III | Kodiak Danvers
Date Received: 7/2/2009

Dear Ms. Blais :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director

7.17.09
Date

39
# of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

Eastern Analytical, Inc. ID#: 80472

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Temperature upon receipt (°C): 17 **Received on ice or cold packs (Yes/No): Y**

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservatic
80472.01	North Well	7/2/09	7/2/09	aqueous		Adheres to Sample Acceptance Policy EDB, 1,4 Dioxane and Res Chlorine Bubble in both vials 8260B Bubble in one vial
80472.02	Trip Blank	7/2/09	6/22/09	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.

All results contained in this report relate only to the above listed samples.

References include:

1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater : Inorganics, 19th Edition, 1995; Microbiology, 20th Edition, 1998
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80472

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Sample ID:	North Well	Trip Blank
Lab Sample ID:	80472.01	80472.02
Matrix:	aqueous	aqueous
Date Sampled:	7/2/09	6/22/09
Date Received:	7/2/09	7/2/09
Units:	ug/l	ug/l
Date of Analysis:	7/6/09	7/6/09
Analyst:	KJP	KJP
Method:	8260B	8260B
Dilution Factor:	1	1
Dichlorodifluoromethane	< 5	< 5
Chloromethane	< 2	< 2
Vinyl chloride	< 2	< 2
Bromomethane	< 2	< 2
Chloroethane	< 5	< 5
Trichlorofluoromethane	< 5	< 5
Diethyl Ether	< 5	< 5
Acetone	< 10	< 10
1,1-Dichloroethene	< 1	< 1
tert-Butyl Alcohol (TBA)	< 30	< 30
Methylene chloride	< 5	< 5
Carbon disulfide	< 5	< 5
Methyl-t-butyl ether(MTBE)	< 5	< 5
Ethyl-t-butyl ether(ETBE)	< 5	< 5
Isopropyl ether(DIPE)	< 5	< 5
tert-amyl methyl ether(TAME)	< 5	< 5
trans-1,2-Dichloroethene	< 2	< 2
1,1-Dichloroethane	< 2	< 2
2,2-Dichloropropane	< 2	< 2
cis-1,2-Dichloroethene	< 2	< 2
2-Butanone(MEK)	< 10	< 10
Bromochloromethane	< 2	< 2
Tetrahydrofuran(THF)	< 10	< 10
Chloroform	< 2	< 2
1,1,1-Trichloroethane	< 2	< 2
Carbon tetrachloride	< 2	< 2
1,1-Dichloropropene	< 2	< 2
Benzene	< 1	< 1
1,2-Dichloroethane	< 2	< 2
Trichloroethene	< 2	< 2
1,2-Dichloropropane	< 2	< 2
Dibromomethane	< 2	< 2
Bromodichloromethane	< 0.5	< 0.5
4-Methyl-2-pentanone(MIBK)	< 10	< 10
cis-1,3-Dichloropropene	< 2	< 2
Toluene	< 1	< 1
trans-1,3-Dichloropropene	< 2	< 2
1,1,2-Trichloroethane	< 2	< 2
2-Hexanone	< 10	< 10
Tetrachloroethene	< 2	< 2
1,3-Dichloropropane	< 2	< 2
Dibromochloromethane	< 2	< 2
1,2-Dibromoethane(EDB)	< 2	< 2
Chlorobenzene	< 2	< 2
1,1,1,2-Tetrachloroethane	< 2	< 2
Ethylbenzene	< 1	< 1

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80472

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Sample ID:	North Well	Trip Blank
Lab Sample ID:	80472.01	80472.02
Matrix:	aqueous	aqueous
Date Sampled:	7/2/09	6/22/09
Date Received:	7/2/09	7/2/09
Units:	ug/l	ug/l
Date of Analysis:	7/6/09	7/6/09
Analyst:	KJP	KJP
Method:	8260B	8260B
Dilution Factor:	1	1
mp-Xylene	< 1	< 1
o-Xylene	< 1	< 1
Styrene	< 1	< 1
Bromoform	< 2	< 2
IsoPropylbenzene	< 1	< 1
Bromobenzene	< 2	< 2
1,1,2,2-Tetrachloroethane	< 2	< 2
1,2,3-Trichloropropane	< 2	< 2
n-Propylbenzene	< 1	< 1
2-Chlorotoluene	< 2	< 2
4-Chlorotoluene	< 2	< 2
1,3,5-Trimethylbenzene	< 1	< 1
tert-Butylbenzene	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1
sec-Butylbenzene	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1
p-Isopropyltoluene	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1
n-Butylbenzene	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2
1,2,4-Trichlorobenzene	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5
Naphthalene	< 5	< 5
1,2,3-Trichlorobenzene	< 1	< 1
4-Bromofluorobenzene (surr)	93 %R	96 %R
1,2-Dichlorobenzene-d4 (surr)	101 %R	103 %R
Toluene-d8 (surr)	96 %R	95 %R

QC REPORT

Eastern Analytical, Inc. ID#: 80472 **Batch ID:**

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Metho
Dichlorodifluoromethane	< 5			7/6/2009	ug/l			8260
Chloromethane	< 2			7/6/2009	ug/l			8260
Vinyl chloride	< 2			7/6/2009	ug/l			8260
Bromomethane	< 2			7/6/2009	ug/l			8260
Chloroethane	< 5			7/6/2009	ug/l			8260
Trichlorofluoromethane	< 5			7/6/2009	ug/l			8260
Diethyl Ether	< 5			7/6/2009	ug/l			8260
Acetone	< 10			7/6/2009	ug/l			8260
1,1-Dichloroethene	< 1	16 (82 %R)	19 (95 %R) (15 RPD)	7/6/2009	ug/l	61 - 145	20	8260
tert-Butyl Alcohol (TBA)	< 30			7/6/2009	ug/l			8260
Methylene chloride	< 5			7/6/2009	ug/l			8260
Carbon disulfide	< 5			7/6/2009	ug/l			8260
Methyl-t-butyl ether(MTBE)	< 5			7/6/2009	ug/l			8260
Ethyl-t-butyl ether(ETBE)	< 5			7/6/2009	ug/l			8260
Isopropyl ether(DIPE)	< 5			7/6/2009	ug/l			8260
tert-amyl methyl ether(TAME)	< 5			7/6/2009	ug/l			8260
trans-1,2-Dichloroethene	< 2			7/6/2009	ug/l			8260
1,1-Dichloroethane	< 2			7/6/2009	ug/l			8260
2,2-Dichloropropane	< 2			7/6/2009	ug/l			8260
cis-1,2-Dichloroethene	< 2			7/6/2009	ug/l			8260
2-Butanone(MEK)	< 10			7/6/2009	ug/l			8260
Bromochloromethane	< 2			7/6/2009	ug/l			8260
Tetrahydrofuran(THF)	< 10			7/6/2009	ug/l			8260
Chloroform	< 2			7/6/2009	ug/l			8260
1,1,1-Trichloroethane	< 2			7/6/2009	ug/l			8260
Carbon tetrachloride	< 2			7/6/2009	ug/l			8260
1,1-Dichloropropene	< 2			7/6/2009	ug/l			8260
Benzene	< 1	18 (89 %R)	20 (100 %R) (12 RPD)	7/6/2009	ug/l	76 - 127	20	8260
1,2-Dichloroethane	< 2			7/6/2009	ug/l			8260
Trichloroethene	< 2	17 (84 %R)	20 (98 %R) (15 RPD)	7/6/2009	ug/l	71 - 120	20	8260
1,2-Dichloropropane	< 2			7/6/2009	ug/l			8260
Dibromomethane	< 2			7/6/2009	ug/l			8260
Bromodichloromethane	< 0.5			7/6/2009	ug/l			8260
4-Methyl-2-pentanone(MIBK)	< 10			7/6/2009	ug/l			8260
cis-1,3-Dichloropropene	< 2			7/6/2009	ug/l			8260
Toluene	< 1	18 (90 %R)	20 (100 %R) (11 RPD)	7/6/2009	ug/l	76 - 125	20	8260
trans-1,3-Dichloropropene	< 2			7/6/2009	ug/l			8260
1,1,2-Trichloroethane	< 2			7/6/2009	ug/l			8260
2-Hexanone	< 10			7/6/2009	ug/l			8260
Tetrachloroethene	< 2			7/6/2009	ug/l			8260
1,3-Dichloropropane	< 2			7/6/2009	ug/l			8260
Dibromochloromethane	< 2			7/6/2009	ug/l			8260
1,2-Dibromoethane(EDB)	< 2			7/6/2009	ug/l			8260
Chlorobenzene	< 2	18 (90 %R)	20 (98 %R) (9 RPD)	7/6/2009	ug/l	75 - 130	20	8260

QC REPORT

Eastern Analytical, Inc. ID#: 80472 **Batch ID:**

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Metho
1,1,1,2-Tetrachloroethane	< 2			7/6/2009	ug/l			826
Ethylbenzene	< 1			7/6/2009	ug/l			826
mp-Xylene	< 1			7/6/2009	ug/l			826
o-Xylene	< 1			7/6/2009	ug/l			826
Styrene	< 1			7/6/2009	ug/l			826
Bromoform	< 2			7/6/2009	ug/l			826
IsoPropylbenzene	< 1			7/6/2009	ug/l			826
Bromobenzene	< 2			7/6/2009	ug/l			826
1,1,2,2-Tetrachloroethane	< 2			7/6/2009	ug/l			826
1,2,3-Trichloropropane	< 2			7/6/2009	ug/l			826
n-Propylbenzene	< 1			7/6/2009	ug/l			826
2-Chlorotoluene	< 2			7/6/2009	ug/l			826
4-Chlorotoluene	< 2			7/6/2009	ug/l			826
1,3,5-Trimethylbenzene	< 1			7/6/2009	ug/l			826
tert-Butylbenzene	< 1			7/6/2009	ug/l			826
1,2,4-Trimethylbenzene	< 1			7/6/2009	ug/l			826
sec-Butylbenzene	< 1			7/6/2009	ug/l			826
1,3-Dichlorobenzene	< 1			7/6/2009	ug/l			826
p-Isopropyltoluene	< 1			7/6/2009	ug/l			826
1,4-Dichlorobenzene	< 1			7/6/2009	ug/l			826
1,2-Dichlorobenzene	< 1			7/6/2009	ug/l			826
n-Butylbenzene	< 1			7/6/2009	ug/l			826
1,2-Dibromo-3-chloropropane	< 2			7/6/2009	ug/l			826
1,3,5-Trichlorobenzene	< 1			7/6/2009	ug/l			826
1,2,4-Trichlorobenzene	< 1			7/6/2009	ug/l			826
Hexachlorobutadiene	< 0.5			7/6/2009	ug/l			826
Naphthalene	< 5			7/6/2009	ug/l			826
1,2,3-Trichlorobenzene	< 1			7/6/2009	ug/l			826
4-Bromofluorobenzene (surr)	95 %R	108 %R	110 %R	7/6/2009	% Rec	86 - 115	50	826
1,2-Dichlorobenzene-d4 (surr)	102 %R	99 %R	94 %R	7/6/2009	% Rec	80 - 120	50	826
Toluene-d8 (surr)	97 %R	97 %R	98 %R	7/6/2009	% Rec	70 - 130	50	826

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
* Flagged analyte recoveries deviated above the QA/QC limits.

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80472

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Sample ID:	North Well	Trip Blank
Lab Sample ID:	80472.01	80472.02
Matrix:	aqueous	aqueous
Date Sampled:	7/2/09	6/22/09
Date Received:	7/2/09	7/2/09
Units:	ug/l	ug/l
Date of Analysis:	7/2/09	7/10/09
Analyst:	VG	VG
Method:	8260B SIM	8260B SIM
Dilution Factor:	1	1
1,4-Dioxane	< 1	< 1
4-Bromofluorobenzene (surr)	102 %R	118 %R
Toluene-d8 (surr)	100 %R	104 %R

QC REPORT

Eastern Analytical, Inc. ID#: 80472

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 1	5 (96 %R)	5 (98 %R) (2 RPD)	ug/l	7/2/09	70 - 130	20	8260B SI
4-Bromofluorobenzene	107 %R	106 %R	106 %R	% Rec	7/2/09	70 - 130	50	8260B SI
Toluene-d8 (surr)	100 %R	102 %R	101 %R	% Rec	7/2/09	70 - 130	50	8260B SI

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
* Flagged analyte recoveries deviated above the QA/QC limits.

QC REPORT

Eastern Analytical, Inc. ID#: 80472

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 1	4 (89 %R)	5 (102 %R) (14 RPD)	ug/l	7/10/09	70 - 130	20	8260B SIM
4-Bromofluorobenzene	107 %R	114 %R	119 %R	% Rec	7/10/09	70 - 130	50	8260B SIM
Toluene-d8 (surr)	102 %R	104 %R	106 %R	% Rec	7/10/09	70 - 130	50	8260B SIM

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
* Flagged analyte recoveries deviated above the QA/QC limits.

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80472

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Sample ID:	North Well
Lab Sample ID:	80472.01
Matrix:	aqueous
Date Sampled:	7/2/09
Date Received:	7/2/09
Units:	ug/l
Date of Extraction/Preparation	7/2/09
Date of Analysis:	7/6/09
Analyst:	BML
Method:	8270D
Dilution Factor:	1
Phenol	< 1
2-Chlorophenol	< 1
2,4-Dichlorophenol	< 1
2,4,5-Trichlorophenol	< 1
2,4,6-Trichlorophenol	< 1
Pentachlorophenol	< 5
2-Nitrophenol	< 1
4-Nitrophenol	< 5
2,4-Dinitrophenol	< 5
2-Methylphenol	< 1
3/4-Methylphenol	< 1
2,4-Dimethylphenol	< 1
4-Chloro-3-methylphenol	< 1
4,6-Dinitro-2-methylphenol	< 5
Benzoic Acid	< 5
N-Nitrosodimethylamine	< 1
n-Nitroso-di-n-propylamine	< 1
n-Nitrosodiphenylamine	< 1
bis(2-Chloroethyl)ether	< 1
bis(2-chloroisopropyl)ether	< 1
bis(2-Chloroethoxy)methane	< 1
1,3-Dichlorobenzene	< 1
1,4-Dichlorobenzene	< 1
1,2-Dichlorobenzene	< 1
1,2,4-Trichlorobenzene	< 1
2-Chloronaphthalene	< 1
4-Chlorophenyl-phenylether	< 1
4-Bromophenyl-phenylether	< 1
Hexachloroethane	< 1
Hexachlorobutadiene	< 1
Hexachlorocyclopentadiene	< 5
Hexachlorobenzene	< 1
4-Chloroaniline	< 1
2-Nitroaniline	< 5
3-Nitroaniline	< 1
4-Nitroaniline	< 1
Benzyl alcohol	< 1
Nitrobenzene	< 1
Isophorone	< 1
2,4-Dinitrotoluene	< 1
2,6-Dinitrotoluene	< 1
Benzidine	< 5
3,3'-Dichlorobenzidine	< 1
Pyridine	< 5
Azobenzene	< 1

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80472

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Sample ID:	North Well
Lab Sample ID:	80472.01
Matrix:	aqueous
Date Sampled:	7/2/09
Date Received:	7/2/09
Units:	ug/l
Date of Extraction/Preparation	7/2/09
Date of Analysis:	7/6/09
Analyst:	BML
Method:	8270D
Dilution Factor:	1
Carbazole	< 1
Dimethylphthalate	< 1
Diethylphthalate	< 1.
Di-n-butylphthalate	< 5
Butylbenzylphthalate	< 1
bis(2-Ethylhexyl)phthalate	< 5
Di-n-octylphthalate	< 1
Dibenzofuran	< 1
Naphthalene	< 0.1
2-Methylnaphthalene	< 0.1
Acenaphthylene	< 0.1
Acenaphthene	< 0.1
Fluorene	< 0.1
Phenanthrene	< 0.1
Anthracene	< 0.1
Fluoranthene	0.1
Pyrene	0.1
Benzo[a]anthracene	0.1
Chrysene	< 0.1
Benzo[b]fluoranthene	< 0.1
Benzo[k]fluoranthene	< 0.1
Benzo[a]pyrene	< 0.1
Indeno[1,2,3-cd]pyrene	< 0.1
Dibenz[a,h]anthracene	< 0.1
Benzo[g,h,i]perylene	< 0.1
2-Fluorophenol (surr)	62 %R
Phenol-d6 (surr)	41 %R
2,4,6-Tribromophenol (surr)	109 %R
Nitrobenzene-D5 (surr)	96 %R
2-Fluorobiphenyl (surr)	96 %R
p-Terphenyl-D14 (surr)	114 %R

QC REPORT

Eastern Analytical, Inc. ID#: 80472 **Batch ID:**

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Metho
Phenol	< 1	11 (43 %R)	10 (41 %R) (5 RPD)	7/6/2009	ug/l	12 - 110	42	827(
2-Chlorophenol	< 1	22 (89 %R)	21 (86 %R) (3 RPD)	7/6/2009	ug/l	27 - 123	40	827(
2,4-Dichlorophenol	< 1	22 (%R)	22 (%R) (RPD)	7/6/2009	ug/l			827(
2,4,5-Trichlorophenol	< 1	21 (%R)	21 (%R) (RPD)	7/6/2009	ug/l			827(
2,4,6-Trichlorophenol	< 1	22 (%R)	22 (%R) (RPD)	7/6/2009	ug/l			827(
Pentachlorophenol	< 5	16 (65 %R)	17 (67 %R) (3 RPD)	7/6/2009	ug/l	9 - 103	50	827(
2-Nitrophenol	< 1	23 (%R)	23 (%R) (RPD)	7/6/2009	ug/l			827(
4-Nitrophenol	< 5	9 (36 %R)	9 (37 %R) (3 RPD)	7/6/2009	ug/l	10 - 80	50	827(
2,4-Dinitrophenol	< 5	17 (%R)	18 (%R) (RPD)	7/6/2009	ug/l			827(
2-Methylphenol	< 1	20 (%R)	19 (%R) (RPD)	7/6/2009	ug/l			827(
3/4-Methylphenol	< 1	17 (%R)	16 (%R) (RPD)	7/6/2009	ug/l			827(
2,4-Dimethylphenol	< 1	21 (%R)	19 (%R) (RPD)	7/6/2009	ug/l			827(
4-Chloro-3-methylphenol	< 1	24 (95 %R)	24 (95 %R) (0 RPD)	7/6/2009	ug/l	23 - 97	42	827(
4,6-Dinitro-2-methylphenol	< 5	19 (%R)	20 (%R) (RPD)	7/6/2009	ug/l			827(
Benzoic Acid	< 5			7/6/2009	ug/l			827(
N-Nitrosodimethylamine	< 1	14 (%R)	14 (%R) (RPD)	7/6/2009	ug/l			827(
n-Nitroso-di-n-propylamine	< 1	23 (92 %R)	23 (93 %R) (1 RPD)	7/6/2009	ug/l	41 - 116	38	827(
n-Nitrosodiphenylamine	< 1	27 (%R)	28 (%R) (RPD)	7/6/2009	ug/l			827(
bis(2-Chloroethyl)ether	< 1	23 (%R)	22 (%R) (RPD)	7/6/2009	ug/l			827(
bis(2-chloroisopropyl)ether	< 1	23 (%R)	22 (%R) (RPD)	7/6/2009	ug/l			827(
bis(2-Chloroethoxy)methane	< 1	22 (%R)	22 (%R) (RPD)	7/6/2009	ug/l			827(
1,3-Dichlorobenzene	< 1	19 (%R)	18 (%R) (RPD)	7/6/2009	ug/l			827(
1,4-Dichlorobenzene	< 1	20 (79 %R)	19 (76 %R) (4 RPD)	7/6/2009	ug/l	36 - 97	28	827(
1,2-Dichlorobenzene	< 1	21 (%R)	20 (%R) (RPD)	7/6/2009	ug/l			827(
1,2,4-Trichlorobenzene	< 1	21 (83 %R)	20 (80 %R) (4 RPD)	7/6/2009	ug/l	39 - 98	28	827(
2-Chloronaphthalene	< 1	22 (%R)	22 (%R) (RPD)	7/6/2009	ug/l			827(
4-Chlorophenyl-phenylether	< 1	23 (%R)	23 (%R) (RPD)	7/6/2009	ug/l			827(
4-Bromophenyl-phenylether	< 1	23 (%R)	23 (%R) (RPD)	7/6/2009	ug/l			827(
Hexachloroethane	< 1	18 (%R)	18 (%R) (RPD)	7/6/2009	ug/l			827(
Hexachlorobutadiene	< 1	18 (%R)	17 (%R) (RPD)	7/6/2009	ug/l			827(
Hexachlorocyclopentadiene	< 5	15 (%R)	15 (%R) (RPD)	7/6/2009	ug/l			827(
Hexachlorobenzene	< 1	22 (%R)	22 (%R) (RPD)	7/6/2009	ug/l			827(
4-Chloroaniline	< 1	24 (%R)	23 (%R) (RPD)	7/6/2009	ug/l			827(
2-Nitroaniline	< 5	23 (%R)	23 (%R) (RPD)	7/6/2009	ug/l			827(
3-Nitroaniline	< 1	22 (%R)	22 (%R) (RPD)	7/6/2009	ug/l			827(
4-Nitroaniline	< 1	22 (%R)	22 (%R) (RPD)	7/6/2009	ug/l			827(
Benzyl alcohol	< 1	22 (%R)	21 (%R) (RPD)	7/6/2009	ug/l			827(
Nitrobenzene	< 1	23 (%R)	23 (%R) (RPD)	7/6/2009	ug/l			827(
Isophorone	< 1	26 (%R)	26 (%R) (RPD)	7/6/2009	ug/l			827(
2,4-Dinitrotoluene	< 1	* 24 (98 %R)	* 25 (98 %R) (0 RPD)	7/6/2009	ug/l	24 - 96	38	827(
2,6-Dinitrotoluene	< 1	25 (%R)	25 (%R) (RPD)	7/6/2009	ug/l			827(
Benzidine	< 5	37 (%R)	35 (%R) (RPD)	7/6/2009	ug/l			827(
3,3'-Dichlorobenzidine	< 1	25 (%R)	25 (%R) (RPD)	7/6/2009	ug/l			827(
Pyridine	< 5	15 (%R)	15 (%R) (RPD)	7/6/2009	ug/l			827(
Azobenzene	< 1	22 (%R)	22 (%R) (RPD)	7/6/2009	ug/l			827(

QC REPORT

Eastern Analytical, Inc. ID#: 80472 **Batch ID:**

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Carbazole	< 1	24 (%R)	24 (%R) (RPD)	7/6/2009	ug/l			8270
Dimethylphthalate	< 1	24 (%R)	24 (%R) (RPD)	7/6/2009	ug/l			8270
Diethylphthalate	< 1	25 (%R)	25 (%R) (RPD)	7/6/2009	ug/l			8270
Di-n-butylphthalate	< 5	25 (%R)	25 (%R) (RPD)	7/6/2009	ug/l			8270
Butylbenzylphthalate	< 1	27 (%R)	26 (%R) (RPD)	7/6/2009	ug/l			8270
bis(2-Ethylhexyl)phthalate	< 5	27 (%R)	26 (%R) (RPD)	7/6/2009	ug/l			8270
Di-n-octylphthalate	< 1	25 (%R)	25 (%R) (RPD)	7/6/2009	ug/l			8270
Dibenzofuran	< 1	22 (%R)	22 (%R) (RPD)	7/6/2009	ug/l			8270
Naphthalene	< 0.1	22 (86 %R)	21 (84 %R) (2 RPD)	7/6/2009	ug/l	30 - 160	50	8270
2-Methylnaphthalene	< 0.1	21 (84 %R)	21 (83 %R) (1 RPD)	7/6/2009	ug/l	30 - 160	50	8270
Acenaphthylene	< 0.1	24 (95 %R)	23 (93 %R) (2 RPD)	7/6/2009	ug/l	30 - 160	50	8270
Acenaphthene	< 0.1	23 (92 %R)	23 (90 %R) (2 RPD)	7/6/2009	ug/l	46 - 118	31	8270
Fluorene	< 0.1	24 (94 %R)	24 (94 %R) (0 RPD)	7/6/2009	ug/l	30 - 160	50	8270
Phenanthrene	< 0.1	22 (90 %R)	23 (91 %R) (1 RPD)	7/6/2009	ug/l	30 - 160	50	8270
Anthracene	< 0.1	22 (90 %R)	23 (91 %R) (1 RPD)	7/6/2009	ug/l	30 - 160	50	8270
Fluoranthene	< 0.1	23 (91 %R)	23 (91 %R) (0 RPD)	7/6/2009	ug/l	30 - 160	50	8270
Pyrene	< 0.1	25 (100 %R)	25 (100 %R) (0 RPD)	7/6/2009	ug/l	26 - 127	31	8270
Benzo[a]anthracene	< 0.1	23 (94 %R)	23 (91 %R) (3 RPD)	7/6/2009	ug/l	30 - 160	50	8270
Chrysene	< 0.1	25 (98 %R)	24 (95 %R) (3 RPD)	7/6/2009	ug/l	30 - 160	50	8270
Benzo[b]fluoranthene	< 0.1	26 (104 %R)	25 (101 %R) (3 RPD)	7/6/2009	ug/l	30 - 160	50	8270
Benzo[k]fluoranthene	< 0.1	25 (100 %R)	24 (97 %R) (3 RPD)	7/6/2009	ug/l	30 - 160	50	8270
Benzo[a]pyrene	< 0.1	26 (102 %R)	25 (100 %R) (2 RPD)	7/6/2009	ug/l	30 - 160	50	8270
Indeno[1,2,3-cd]pyrene	< 0.1	26 (104 %R)	25 (101 %R) (3 RPD)	7/6/2009	ug/l	30 - 160	50	8270
Dibenz[a,h]anthracene	< 0.1	26 (104 %R)	25 (102 %R) (2 RPD)	7/6/2009	ug/l	30 - 160	50	8270
Benzo[g,h,i]perylene	< 0.1	26 (102 %R)	25 (99 %R) (3 RPD)	7/6/2009	ug/l	30 - 160	50	8270
2-Fluorophenol (surr)	58 %R	58 %R	56 %R	7/6/2009	% Rec	21 - 110		8270
Phenol-d6 (surr)	40 %R	41 %R	39 %R	7/6/2009	% Rec	10 - 94		8270
2,4,6-Tribromophenol (surr)	94 %R	98 %R	99 %R	7/6/2009	% Rec	10 - 123		8270
Nitrobenzene-D5 (surr)	95 %R	97 %R	95 %R	7/6/2009	% Rec	35 - 114		8270
2-Fluorobiphenyl (surr)	93 %R	91 %R	89 %R	7/6/2009	% Rec	43 - 116		8270
p-Terphenyl-D14 (surr)	111 %R	106 %R	104 %R	7/6/2009	% Rec	33 - 141		8270

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
* Flagged analyte recoveries deviated above the QA/QC limits.

2,4-Dinitrotoluene deviated above the QA/QC limit within the LCS and LCSD.

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80472

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Sample ID: North Well

Lab Sample ID: 80472.01
Matrix: aqueous
Date Sampled: 7/2/09
Date Received: 7/2/09

			Analysis			
		Units	Date	Time	Method	An
TPH(SGTHEM)	< 5	mg/L	7/06/09	9:25	1664A	

QC REPORT

Eastern Analytical, Inc. ID#: 80472 **Batch ID:** 733594-47143/A070609TPH16

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Metho
TPH(SGTHEM)	< 5	19 (96 %R)	19 (97 %R) (1 RPD)	7/6/2009	mg/L	64 - 132	34	166

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
* Flagged analyte recoveries deviated above the QA/QC limits.

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80472

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Sample ID:	North Well
Lab Sample ID:	80472.01
Matrix:	aqueous
Date Sampled:	7/2/09
Date Received:	7/2/09
% Solid:	
Units:	ug/l
Date of Extraction/Prep:	7/9/09
Date of Analysis:	7/9/09
Analyst:	JW
Extraction Method:	608/3510C
Analysis Method:	608
Dilution Factor:	1
PCB-1016	< 1
PCB-1221	< 1
PCB-1232	< 1
PCB-1242	< 1
PCB-1248	< 1
PCB-1254	< 1
PCB-1260	< 1
TMX (surr)	87 %R
DCB (surr)	94 %R

QC REPORT

Eastern Analytical, Inc. ID#: 80472 **Batch ID:** 733597-51789/A070909E608P

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Meth
PCB-1016	< 1	4 (90 %R)	4 (95 %R) (5 RPD)	7/9/2009	ug/l	40 - 140	50	6
PCB-1221	< 1	< 1 (%R N/A)	< 1 (%R N/A) (RPD N/A)	7/9/2009	ug/l			6
PCB-1232	< 1	< 1 (%R N/A)	< 1 (%R N/A) (RPD N/A)	7/9/2009	ug/l			6
PCB-1242	< 1	< 1 (%R N/A)	< 1 (%R N/A) (RPD N/A)	7/9/2009	ug/l			6
PCB-1248	< 1	< 1 (%R N/A)	< 1 (%R N/A) (RPD N/A)	7/9/2009	ug/l			6
PCB-1254	< 1	< 1 (%R N/A)	< 1 (%R N/A) (RPD N/A)	7/9/2009	ug/l			6
PCB-1260	< 1	3 (85 %R)	4 (96 %R) (12 RPD)	7/9/2009	ug/l	40 - 140	50	6
TMX (surr)	89 %R	89 %R	94 %R		% Rec	30 - 150		6
DCB (surr)	96 %R	97 %R	105 %R		% Rec	30 - 150		6

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
* Flagged analyte recoveries deviated above the QA/QC limits.

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80472

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Sample ID: North Well

Lab Sample ID: 80472.01
Matrix: aqueous
Date Sampled: 7/2/09
Date Received: 7/2/09

			Analysis			
		Units	Date	Time	Method	An
Solids Suspended	33	mg/L	7/07/09	8:30	2540D	I
Cyanide Total	< 0.01	mg/L	7/06/09	10:00	4500CNE	
Total Residual Chlorine	< 0.5	mg/L	7/02/09	11:30	4500ClG	

QC REPORT

Eastern Analytical, Inc. ID#: 80472

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Solids Suspended	< 2	94 (94 %R)	NA	mg/L	7/7/09	90 - 110	20	2540
Cyanide Total	< 0.01	0.22 (86 %R)	0.22 (90 %R) (5 RPD)	mg/L	7/6/09	85 - 115	20	4500CN
Total Residual Chlorine	< 0.5	0.9 (98 %R)	NA	mg/L	7/2/09	80 - 120	20	4500Cl

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Solids Suspended		NA	NA	NA	mg/L	7/7/09		20	2540
Cyanide Total	80472.01	< 0.01	0.20 (97 %R)	0.20 (99 %R) (2 RPD)	mg/L	7/6/09	80-120	20	4500CN
Total Residual Chlorine		NA	NA	NA	mg/L	7/2/09		20	4500Cl

Parameter Name	Duplicate Parent ID	Duplicate Parent	Duplicate	Units	Date of Analysis	RPD	Method
Solids Suspended	80507.01	12	13 (4 RPD)	mg/L	7/7/09	20	2540
Cyanide Total		NA	NA	mg/L	7/6/09	20	4500CN
Total Residual Chlorine	80171.09	0.90	0.9 (5 RPD)	mg/L	7/2/09	20	4500Cl

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
* Flagged analyte recoveries deviated above the QA/QC limits.

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80472

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Sample ID: North Well

Lab Sample ID: 80472.01
Matrix: aqueous
Date Sampled: 7/2/09
Date Received: 7/2/09

		Analytical Matrix	Units	Date of Analysis	Method	Analy
Chromium (III)	< 0.01	AqTot	mg/L	7/2/09	200.8	D
Chromium (VI)	< 0.01	AqTot	mg/L	7/2/09	7196A	D
Antimony	0.003	AqTot	mg/L	7/8/09	200.8	D
Arsenic	0.059	AqTot	mg/L	7/8/09	200.8	D
Cadmium	0.0003	AqTot	mg/L	7/8/09	200.8	D
Chromium	0.003	AqTot	mg/L	7/8/09	200.8	D
Copper	0.006	AqTot	mg/L	7/8/09	200.8	D
Iron	0.16	AqTot	mg/L	7/8/09	200.8	D
Lead	0.0012	AqTot	mg/L	7/8/09	200.8	D
Mercury	< 0.0001	AqTot	mg/L	7/8/09	200.8	D
Nickel	0.013	AqTot	mg/L	7/8/09	200.8	D
Selenium	0.033	AqTot	mg/L	7/8/09	200.8	D
Silver	0.0008	AqTot	mg/L	7/8/09	200.8	D
Zinc	< 0.005	AqTot	mg/L	7/8/09	200.8	D

QC REPORT

Eastern Analytical, Inc. ID#: 80472

Client: **Contractors Risk Management** Client Designation: **NOI RGP - Appendix III | Kodiak Danvers**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Antimony	< 0.001	1.0 (100 %R)		mg/L	7/8/09	85 - 115	20	200.8
Arsenic	< 0.0001	1.1 (106 %R)		mg/L	7/8/09	85 - 115	20	200.8
Cadmium	< 0.0001	1.0 (103 %R)		mg/L	7/8/09	85 - 115	20	200.8
Chromium	< 0.001	0.99 (99 %R)		mg/L	7/8/09	85 - 115	20	200.8
Copper	< 0.001	0.93 (93 %R)		mg/L	7/8/09	85 - 115	20	200.8
Iron	< 0.05	10 (94 %R)		mg/L	7/8/09	85 - 115	20	200.8
Lead	< 0.0001	1.1 (106 %R)		mg/L	7/8/09	85 - 115	20	200.8
Mercury	< 0.0001	.0022 (111 %R)		mg/L	7/8/09	85 - 115	20	200.8
Nickel	< 0.001	0.99 (99 %R)		mg/L	7/8/09	85 - 115	20	200.8
Selenium	< 0.001	1.0 (102 %R)		mg/L	7/8/09	85 - 115	20	200.8
Silver	< 0.0001	1.1 (114 %R)		mg/L	7/8/09	85 - 115	20	200.8
Zinc	< 0.005	0.87 (87 %R)		mg/L	7/8/09	85 - 115	20	200.8
Chromium (VI)	< 0.01	0.23 (102 %R)		mg/L	7/2/09	95 - 105	20	7196A

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Antimony	80406.01	< 0.001	1.3 (127 %R)	1.3 (128 %R) (1 RPD)	mg/L	7/8/09	70-130	20	200.
Arsenic	80406.01	0.0017	1.1 (107 %R)	1.1 (106 %R) (1 RPD)	mg/L	7/8/09	70-130	20	200.
Cadmium	80406.01	< 0.001	1.1 (105 %R)	1.0 (104 %R) (1 RPD)	mg/L	7/8/09	70-130	20	200.
Chromium	80406.01	< 0.001	1.2 (118 %R)	1.2 (119 %R) (1 RPD)	mg/L	7/8/09	70-130	20	200.
Copper	80406.01	0.006	1.0 (103 %R)	1.1 (105 %R) (2 RPD)	mg/L	7/8/09	70-130	20	200.
Iron	80406.01	0.57	12 (103 %R)	12 (104 %R) (1 RPD)	mg/L	7/8/09	70-130	20	200.
Lead	80406.01	< 0.001	1.2 (122 %R)	1.2 (120 %R) (2 RPD)	mg/L	7/8/09	70-130	20	200.
Mercury	80406.01	< 0.0001	0.0012 (122 %R)	.0012 (118 %R) (3 RPD)	mg/L	7/8/09	70-130	20	200.
Nickel	80406.01	0.0022	0.96 (96 %R)	0.96 (96 %R) (0 RPD)	mg/L	7/8/09	70-130	20	200.
Selenium	80406.01	< 0.0005	1.1 (108 %R)	1.0 (103 %R) (5 RPD)	mg/L	7/8/09	70-130	20	200.
Silver	80406.01	< 0.001	1.2 (115 %R)	1.1 (115 %R) (0 RPD)	mg/L	7/8/09	70-130	20	200.
Zinc	80406.01	0.019	0.83 (81 %R)	0.84 (82 %R) (1 RPD)	mg/L	7/8/09	70-130	20	200.
Chromium (VI)	80472.01	< 0.01	0.20 (100 %R)	0.20 (99 %R) (1 RPD)	mg/L	7/2/09	90-110	20	7196A

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
* Flagged analyte recoveries deviated above the QA/QC limits.

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

July 16, 2009

Ms. Pam Gagnon
Eastern Analytical, Inc.
25 Chenell drive
Concord, NH 03301

RE: Analytical Results Case Narrative
Project #80472
Analytics # 64206

Dear Ms. Gagnon

Enclosed please find the analytical results for samples collected from the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed for Pentachlorophenol using EPA Method 8151A.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
HERB Form 1 Sample Data Results for Samples and Method Blanks
HERB Form 3 MS/MSD and LCS/LCSD Results
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No QC deviations.

Chlorinated Herbicides by 8151A:
This narrative is specific to target analytes reported on the Form 1 data pages. Non-target (NT) analyte deviations were not addressed.

If you have any questions or I can be of further assistance please do not hesitate to contact me.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Ms. Pam Gagnon
Eastern Analytical, Inc.
25 Chenell Drive
Concord, NH 03301

Report Number: 64206

Revision: Rev. 0

Re: 3071

80472

Enclosed are the results of the analyses on your sample(s). Samples were received on 06 July 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
64206-1	07/02/09	North Well	EPA 8151 Chlorinated Herbicides	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 7/16/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-120	70-120	EPA 624/8260B
Toluene-d8	85-120	85-120	
Bromofluorobenzene	75-120	75-120	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 625/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

analytics environmental laboratory LLC

HERBICIDE
DATA SUMMARIES

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Ms. Pam Gagnon
Eastern Analytical, Inc.
25 Chenell Drive
Concord, NH 03301

July 16, 2009

SAMPLE DATA

Lab Sample ID:	B07099HW
Matrix:	Aqueous
Percent Solid:	N/A
Dilution Factor:	1
Collection Date:	
Lab Receipt Date:	
Extraction Date:	07/09/09
Analysis Date:	07/14/09

CLIENT SAMPLE ID

Project Name:	3071
Project Number:	80472
Client Sample ID:	LABQC

ANALYTICAL RESULTS CHLORINATED HERBICIDES

COMPOUND	Quantitation Limit µg/L	Results µg/L
Pentachlorophenol	0.25	U

Surrogate Standard Recovery

2,4-Dichlorophenylacetic acid 99 %

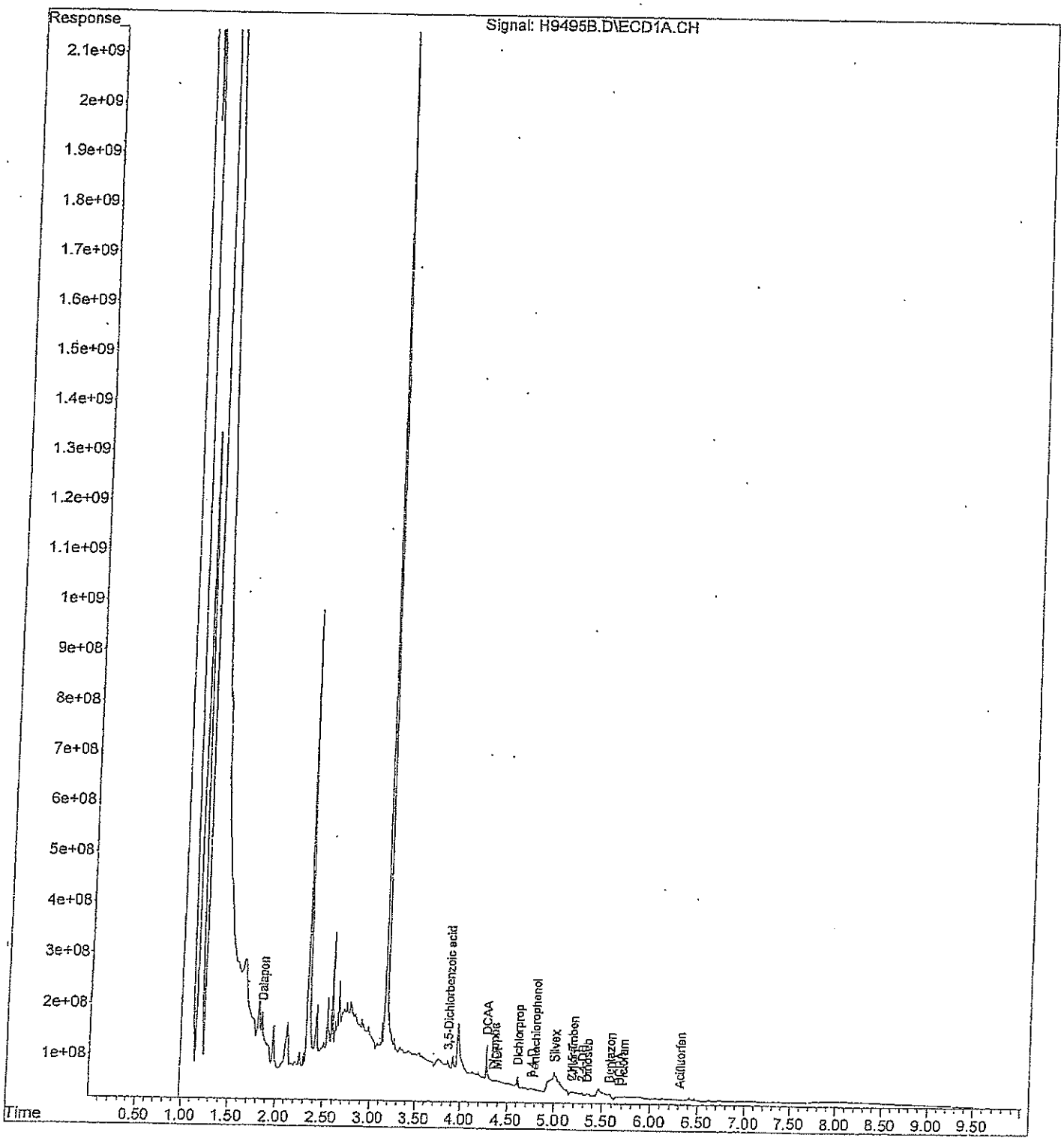
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Samples were analyzed according to Test Methods for Evaluating Solid Waste, SW-846 Method 8151.

COMMENTS:

Authorized signature

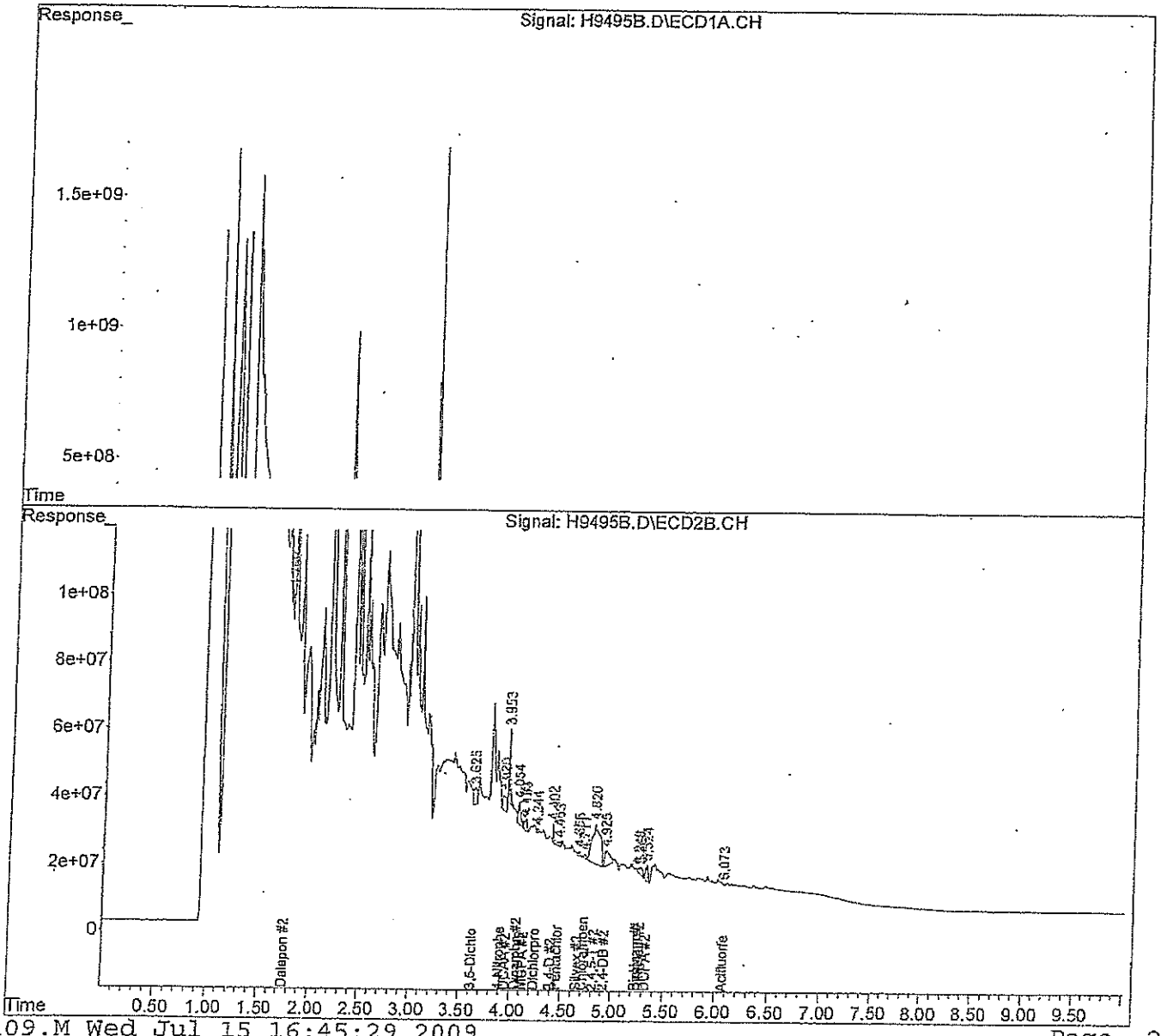
File :C:\msdchem\1\DATA\071409-H\H9495B.D
Operator :
Acquired : 14 Jul 2009 6:30 pm using AcqMethod HERB.M
Instrument : HP G1530A
Sample Name: B07099HW
Misc Info :
Vial Number: 2



Data Path : C:\msdchem\1\DATA\071409-H\
Data File : H9495B.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Jul 2009 6:30 pm
Operator :
Sample : B07099HW
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 15 15:50:19 2009
Quant Method : C:\msdchem\1\METHODS\H07109.M
Quant Title : Herbicide Dual-Widebore
QLast Update : Tue Jul 14 18:18:41 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Ms. Pam Gagnon
Eastern Analytical, Inc.
25 Chenell Drive
Concord, NH 03301

July 16, 2009

SAMPLE DATA

Lab Sample ID:	64206-1
Matrix:	Aqueous
Percent Solid:	N/A
Dilution Factor:	1
Collection Date:	07/02/09
Lab Receipt Date:	07/06/09
Extraction Date:	07/09/09
Analysis Date:	07/14/09

CLIENT SAMPLE ID

Project Name:	3071
Project Number:	80472
Client Sample ID:	North Well

ANALYTICAL RESULTS CHLORINATED HERBICIDES

COMPOUND	Quantitation Limit µg/L	Results µg/L
Pentachlorophenol	0.25	U

Surrogate Standard Recovery

2,4-Dichlorophenylacetic acid 85 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Samples were analyzed according to Test Methods for Evaluating Solid Waste, SW-846 Method 8151.

COMMENTS:

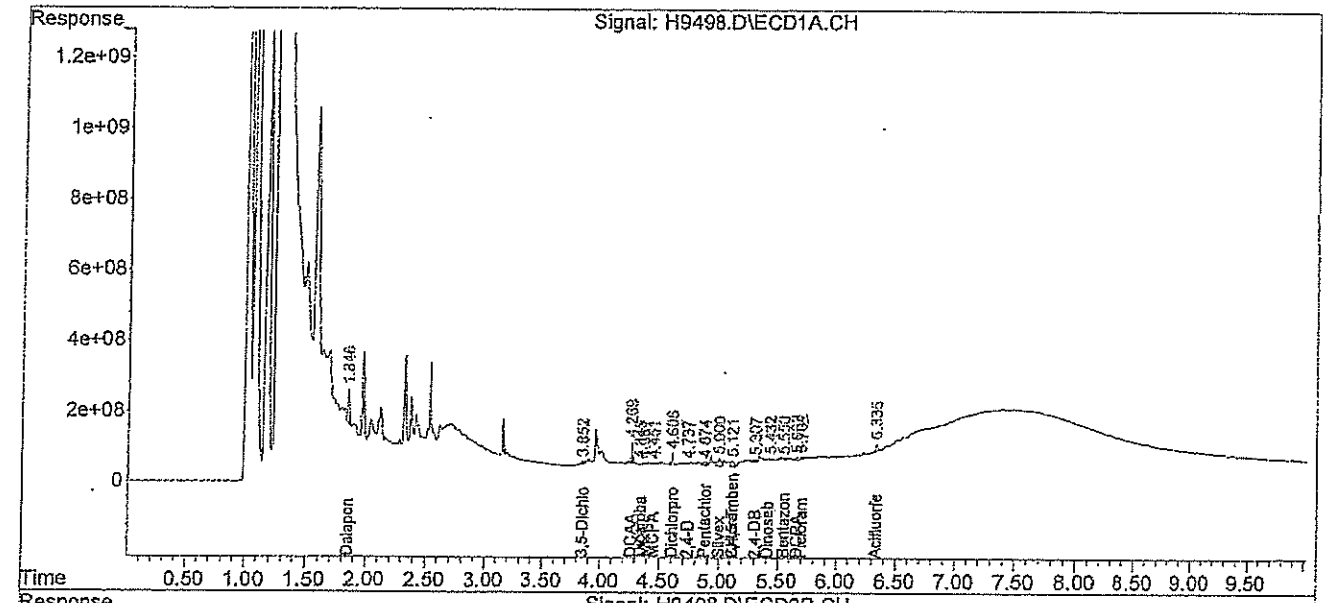
Authorized signature

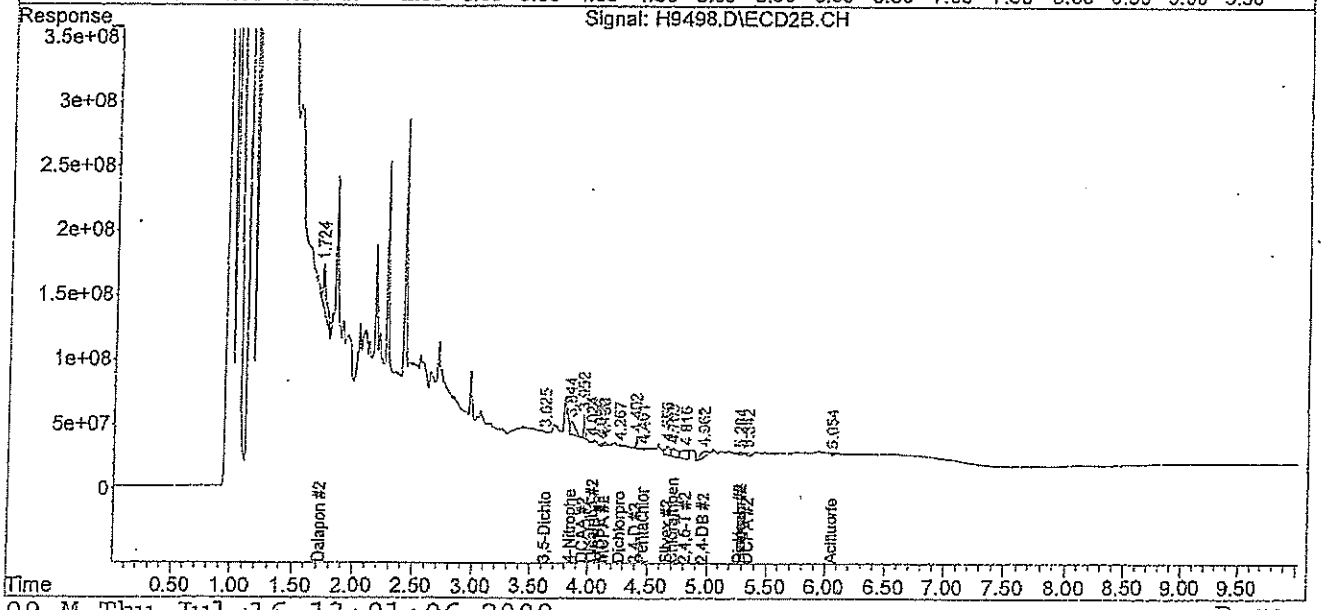
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\071409-H\
Data File : H9498.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Jul 2009 7:11 pm
Operator :
Sample : 64206-1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 15 15:56:50 2009
Quant Method : C:\msdchem\1\METHODS\H07109.M
Quant Title : Herbicide Dual-Widebore
QLast Update : Tue Jul 14 18:18:41 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





HERBICIDE
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:HERBQC.doc

HERBICIDE WATER
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: H
GC Column #1: RTX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: RTX-CLPesticides II
Column ID: 0.25 mm

SDG: 64206
Non-spiked sample: B07099HW
Spike: L07099HW
Spike duplicate: LD07099HW

COMPOUND	LCS SPIKE ADDED (ug/L)	LCSD SPIKE ADDED (ug/L)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
2,4-D	2.00	2.00	40	140	25	0.00	2.03	101		1.93	96		5	
Pentachlorophenol	2.00	2.00	40	140	25	0.00	1.58	79		1.47	73		8	
Silvex	2.00	2.00	50	115	25	0.00	1.98	99		1.92	96		3	
2,4-D #2	2.00	2.00	40	140	25	0.00	1.88	94		1.58	79		17	
Pentachlorophenol #2	2.00	2.00	40	140	25	0.00	1.56	78		1.34	67		15	
Silvex #2	2.00	2.00	50	115	25	0.00	2.02	101		1.80	90		12	

Column to be used to flag recovery and RPD values outside of QC limits
* Values outside QC limits
LCS/LCSD spike added values have been volume adjusted.
Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

CHAIN OF CUSTODIES

CHAIN-OF-CUSTODY RECORD

eastern analytical
professional laboratory services

34

Sample ID	Date Sampled	Matrix	aParameters	Sample Notes
North Well	7/2/2009 8:00	aqueous	Pentachlorophenol Water Subcontract	64206-1

Analytics Report 64206 page 0014 of 15

EAI SRB# **80472** Project State: MA

Project ID: 3071

Company Analytics Environmental Labs

Address 195 Commerce Way

Address Portsmouth, NH 03801

Account #

Phone # 436-5111

Fax Number 430-2151

Results Needed by: Preferred date Std

QC Deliverables

☐A ☐A+ ☒B ☐B+ ☐C ☐DE

Notes about project

3.9°C, Amber Liter tested neg. for residual chlorine using KI paper - JF 7-6-09

Labels checked by CR 7-6-09

Eastern Analytical Inc. PO Number 24180

Report To: Front Office / Ship hard copy overnight

E-Mail PDF: customerservice@eailabs.com

Invoice To: Front Office with hard copy report

Samples Collected by:

Relinquished by	Date/Time	Received by
[illegible]	7/6/09 0740	R. Bland
R. Bland	2009.07.01 1040	[illegible]
Relinquished by	Date/Time	Received by

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 64206

CLIENT: EAC

PROJECT: 80472

COOLER NUMBER: _____

NUMBER OF COOLERS: 1

DATE RECEIVED: 7/06/09

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 7/06/09

1. Cooler received by(initials) JF

Date Received: 7-6-09

2. Circle one: Hand delivered (If so, skip 3) Shipped

3. Did cooler come with a shipping slip? Y N

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? Y N
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? Y N

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? Y N

8. Were custody papers sealed in a plastic bag? Y N

9. Did you sign the COC in the appropriate place? Y N

10. Was the project identifiable from the COC papers? Y N

11. Was enough ice used to chill the cooler? Y N Temp. of cooler: 3.9°

B. Log-In: Date samples were logged in: 7-6-09 By: JF

12. Type of packing in cooler(bubble wrap, popcorn) Y N

13. Were all bottles sealed in separate plastic bags? Y N

14. Did all bottles arrive unbroken and were labels in good condition? Y N

15. Were all bottle labels complete(ID,Date,time,etc.) Y N

16. Did all bottle labels agree with custody papers? Y N

17. Were the correct containers used for the tests indicated: Y N

18. Were samples received at the correct pH? Y N/A

19. Was sufficient amount of sample sent for the tests indicated? Y N

20. Were bubbles absent in VOA samples? Y N/A

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): Date: CP 7/6/09

PHOENIX
Environmental Laboratories, Inc.

Thursday, July 09, 2009

Attn: Front Office
Eastern Analytical
25 Chennell Drive
Concord, NH 03301

Client ID: 3071
Sample ID#s: AR91172

This laboratory is in compliance with the QA/QC procedures outlined in EPA 600/4-79-019, Handbook for Analytical Quality in Water and Waste Water, March 1979, SW846 QA/QC and NELAC requirements of procedures used.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
TX Lab Registration #T104704451-09TX
VT Lab Registration #VT11301

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Analysis Report

July 09, 2009

FOR: Attn: Front Office
Eastern Analytical
25 Chennell Drive
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:		07/02/09	8:00
Location Code:	EASTANAL	Received by:	LB	07/07/09	10:30
Rush Request:		Analyzed by:	see "By" below		
P.O.#:	24179				

Laboratory Data

SDG I.D.: GAR91172
Phoenix I.D.: AR91172

Client ID: 3071 NORTH WELL

Parameter	Result	RL	Units	Date	Time	By	Reference
Ethylene Dibromide	< 0.02	0.02	ug/L	07/08/09		JRB	504.1

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
ND=Not detected BDL=Below Detection Level RL=Reporting Level

Phyllis Shiller, Laboratory Director
July 09, 2009

CHAIN-OF-CUSTODY RECORD

eastern analytical
professional laboratory services

38

Sample ID	Date Sampled	Matrix	aParameters	Sample Notes
North Well	7/2/2009 8:00	aqueous	EDB 504 Subcontract	

91172

EAI SRB# **80472** Project State: MA
Project ID: 3071

Company Phoenix Environmental Labs
Address 587 East Middle Turnpike
Address Manchester , CT. 06040
Account #
Phone # (860) 645-1102
Fax Number 860 645-0823

Results Needed by: Preferred date Std

QC Deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ DE

Notes about project

Eastern Analytical Inc. PO Number 24179

Report To: Front Office / Ship hard copy overnight

E-Mail PDF: customerservice@eailabs.com

Invoice To: Front Office with hard copy report

Samples Collected by:

Relinquished by	Date/Time	Received by
John Johnson	7/6/09 1530	UPS
UPS	7/7/09 10:30	M Powell

Eastern Analytical, Inc. 25 Chenell Dr. Concord, NH 03301 Phone: (603)228-0525 1-800-287-0525 Fax: (603)228-4591

professional laboratory services

CRMnh 39

Sample IDs	Date/Time Composites need start and stop dates/times	Matrix	Parameters and Sample Notes	# of containers
Sample ~~Danvers~~ North Well	7/2/09 8:00 AM	aqueous Grab or Comp	AqTot/EDB504Sub/ABN/TPH1664/E608PCB/ICPMets-Sb-As-Cd-Cr-Cu-Fe-Pb-Hg-Ni-Se-Ag-Zn/Cr6/Cr3/CyanT/Chlorine TRes/TSS/PCPAqSub/VMa8260B/V8260SIM14DIOXANE	
☐ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO_3 H_2SO_4 NaOH MEOH $Na_2S_2O_3$ ICE	Dissolved Sample Field Filtered ☐
Trip Blank	6/22/09 10:30	aqueous Grab or Comp	AqTot/VMa8260B/V8260SIM14DIOXANE EAI PREPPED	
☐ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO_3 H_2SO_4 NaOH MEOH $Na_2S_2O_3$ ICE	Dissolved Sample Field Filtered ☐

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 3071

Project Name NOI RGP - Appendix III | Kodiak Danvers

State MA

Client (Pro Mgr) Lonna Blais

Customer Contractors Risk Management

Address PO BOX 211

City Concord NH 03302

Phone 225-3335 Fax

EmailAddress: blais.lonna@comcast.net

Results Needed by: Preferred date _____

Notes about project: (i.e. Special Limits, Billing info if different...)

PAL 7/17/09

Appendix III needed
PCBs only by 608
RGP Low Level Requirements applicable

QC deliverables

☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ DE

ReportingOptions

☒ HC
☒ EDD PDF
☐ EDD email
☐ PDF prelim, NO FAX
☒ e-mail Login Confirmation
☒ NO FAX

PONumber: Credit App.

Quote No: 1007138

Temperature 17° °C

Ice present Yes ☒ No ☐

Samples Collected by: [signature]

[signature] 7/2/09 ~~8:00 AM~~ 1050 [signature]

Relinquished by Date/Time Received by

Relinquished by Date/Time Received by

Eastern Analytical, Inc. 25 Chenell Dr. Concord, NH 03301 Phone: (603)228-0525 1-800-287-0525 Fax: (603)228-4591

DEWATERING AND FILTRATION PLAN
BY BAKER, CORP

BAKER

07June2010
Kodiak Corp
Rod Cummings
RE: Dewatering/Filtration Mass Highway Project # 601918-07
Water St. Bridge. Danvers, MA

Enclosed, please find my quotation for the above referenced project. This is an estimate of rental and equipment set up required based on the specifications provided by Rod Cummings of Kodiak Corp. it may be necessary to make some field adjustments. Any changes in the quoted system design will affect the cost of the rental.

The plans and flow schedule do not always correlate. It will be necessary to verify pipe sizes and flows once on site. This filtration system is based on an influent flow of 200GPM. Kodiak Corp. will provide the influent flow of water out from the Bridge area to a pair of 21,000 gal frac tanks with weirs, then onto a second set of 21,000 gal tanks for additional settling. Filtration, if determined necessary, will be provided by a 3" electric submersible pump provided by BakerCorp, and will consist of two 3" duplex bag filter units fitted with 10 micron bags, flowing through two pairs of 2k media vessels each with 2,000# of Granular Activated/Reactivated Carbon, through a totalizing flow meter attached to the effluent side and on to discharge. If it is determined that an Oil Water Separator is needed, it will be installed after the duplex bag filters. (See Drawing)

Based on the fact that analytical data is not available, GA/RC is at this time best possible treatment remedy.
We can assume:

- N/A
- N/A
- N/A

The above assumptions must be explicitly confirmed with Rod Cummings of Kodiak Corp., on that basis, here are my thoughts.

288,000 GPD (Gallons Per Day) is an average of 200 GPM for a 24 hr work day. At this rate, the water coming from the settling tank will have fine particulates that the 10 Micron Bag Filters will capture prior to being treated before discharge.

This system may need changes once analytical data is reviewed and the point of discharge is determined.

In any event, periodic testing should be done to avoid violations.

In addition to our standard rental Terms and Conditions, the contractor shall be responsible for the following:

- To have adequate lifting equipment on site to load and unload equipment during the set up and break down.
- Diesel & Gas driven pumps require servicing every 250 hours of running time. This includes oil, oil filter, fuel filter and general maintenance. (Baker Pumps will service the equipment for an additional charge if requested.)
- Freight to and from job site.
- The customer is responsible to provide an insurance certificate showing Baker Corp as an additional insured and loss payee for the rental equipment.
- All labor and equipment to unload and load flatbed trailer.
- Cleaning of the tanks, pumps, duplex bag filters and hoses from water and silt debris
- All equipment must be free from any material prior to release and pick up.

Should you have any questions after reviewing this proposal, please feel free to contact me at (508) 479-4141.

Sincerely,

Simon Dirazonian
Regional Sales Rep. for E.MA, RI, NH, and ME

PRODUCT DATA SHEET
January, 2007

3" DUPLEX BAG FILTER SYSTEM

GENERAL INFORMATION

Two independent filter housings are skid-mounted and piped such that one filter unit is active while the other is out of service. Inlet and outlet connections are provided on each end of the skid. Use for filtering a wide range of industrial and commercial process fluids, groundwater discharge from construction sites, stormwater or urban runoff.

WEIGHTS AND MEASURES

- **Capacity:** ..... Up to 140 gpm per filter when clean (depends on filter media micron rating)
- **Design Press:** ..... 150 psi
- **Design Temp:** ..... 140°F max.*
- **Height:** ..... 5'-0" (overall)
- **Width :** ..... 3'-8"
- **Length:** ..... 5'-0"
- **Weight:** ..... 540 lbs. (approx.)

SKID DESIGN

- **Outer Frame:** ..... 6 x 8.2 A36 carbon steel channel
- **Inter. Frame:** ..... 3"x2 "x3/8" A36 carbon steel angle
- **Filter Housing Pad:** ..... ¼" thk. Steel plate supported by 3x2x3/8 angle iron
- **Forklift Pockets:** ..... Through front and rear framing channels
- **Cover:** ..... Expanded metal grating
- **Lifting Eyes:** ..... All four corners

*Practical limit for the PVC header piping. Unit could be used up to 225°F if carbon steel piping is used instead.

FILTER DESIGN

- **Filter Housing** ..... Rosedale model 8-30-3F-2-150-C-B-S-PB
- **Top Cover:** ..... Three eyenuts; hinged for easy access
- **Piping:** ..... 3" schedule 80 PVC (inlet and outlet headers)
- **Inlet & Outlet:** ..... 3" 150# ANSI flanges
- **Cover Seal:** ..... Buna N (Nitrile) o-ring
- **Housing Material:** ..... Carbon Steel
- **Filter Basket:** ..... 30" deep, 6.7" diameter, 4.4 sq. ft. surface area, 1000 cu. in. volume, 9/64" dia holes (51% open)
- **Filter Media:** ..... Filter bags, size #2. Wide range of micron ratings is available, down to 1.0.
- **Vent Valves:** ..... 1/4" ball valve on top cover
- **Drain Valves:** ..... 1" brass ball valve on the bottom of each housing

SURFACE DETAILS

- **Exterior Coating:** ..... High gloss polyurethane

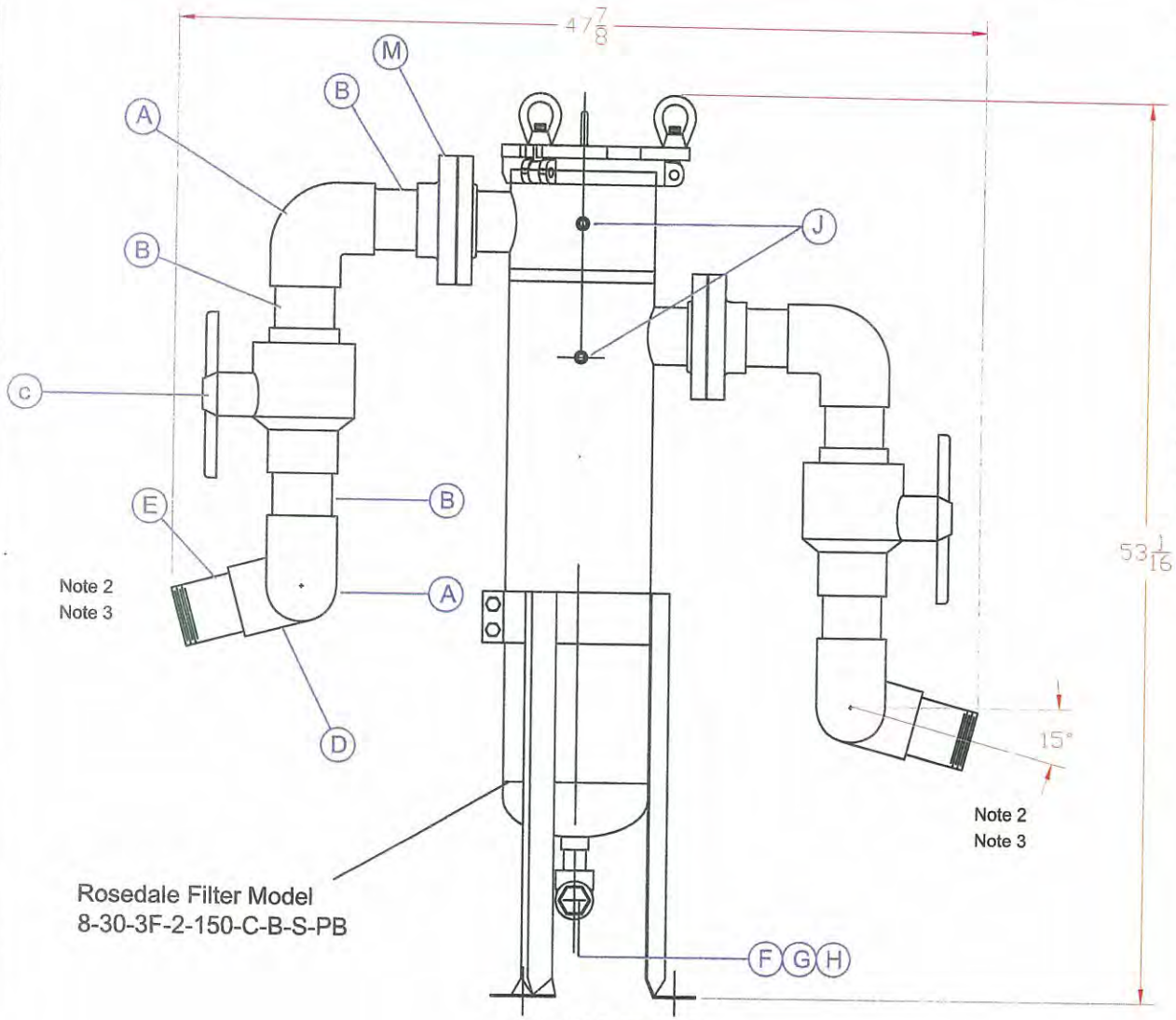
TESTS / CERTIFICATIONS

- **Test Performed:** ..... Scheduled QMS inspections

BAKER

To the best of our knowledge the technical data contained herein are true and accurate at the date of issuance and are subject to change without prior notice. No guarantee of accuracy is given or implied because variations can and do exist. NO WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY BAKERCORP, EITHER EXPRESSED OR IMPLIED.

3020 Old Ranch Parkway • Suite 220 • Seal Beach, CA • 562-430-6262



SIDE VIEW

ITEM	DESCRIPTION
A	Elbow, 90 deg, 3" sch. 80 PVC, socket x socket, Spears 806–030
B	Pipe, 3", sch. 80, PVC, 6–1/4" long
C	Ball valve, 3" PVC, non–shock; Spears 2622–030
D	Tee, 3"x3"x3", sch. 80 PVC, socket ends; Spears 801–030
E	Adapter, 3" PVC, PE x MPT,YARDNEY 126553040
F	1" sch. 80 M.I. MNPTxMNPT pipe nipple, 2" long
G	1" 90 deg. elbow, NPTxNPT
H	1" brass ball valve, FNPTxFNPT; Parker Hannifin XV500P–16
J	Pressure gauge, 0–100 psi oil–filled, 2–1/2" dial
K	NOT USED
L	1/4" 600# WOG brass ball valve; Parker Hannifin XV500P–4
M	Flange, 3" sch. 80 PVC, socket; Spears 851–030

Notes:

1. This is a general layout drawing only.
2. Tee should be rotated downward at an angle of 15-60 degrees to prevent strain on the piping when hose is connected to it.
3. A 3" female camlock fitting (not shown) will be attached to the adapter.

The information contained herein is proprietary to BakerCorp and shall not be reproduced or disclosed in whole or in part, or used for any design or manufacture except when user obtainsdirect written authorization from BakerCorp.

BAKER

3020 OLD RANCH PARKWAY
SEAL BEACH, CA 90740-2751

SCALE: –	SIZE A	ORIGINAL DWG. DATE 18FEB05	
DRAWN BY: P.J.B.	APPROVED BY: –	CAT/CLASS NA	
TITLE 3" BAG FILTER UNIT		SHEET 1 OF 1	
DRAWING NO.			

PRODUCT DATA SHEET

November, 2005

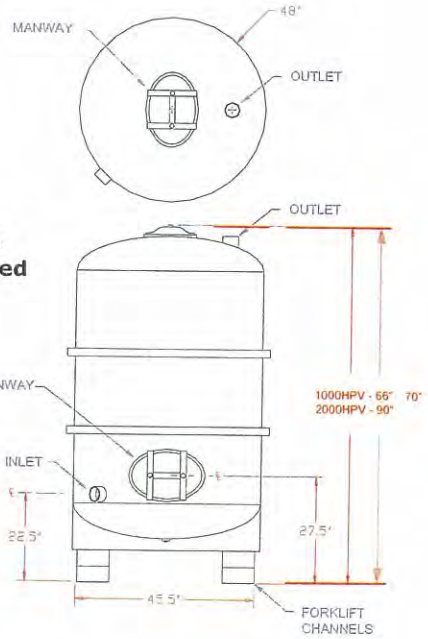
KLEEN.AIR 1000HPV & 2000HPV

GENERAL INFORMATION

These units are designed for the efficient purification of contaminated vapor waste or process streams. They have the ability to remove contaminants to non-detectable levels. The vessels are constructed of heavy-duty mild steel and are lined for corrosion resistance. These filters are shipped from our warehouse with high quality filtration media ready for connection to process piping. Once the media is "spent", Baker can provide a number of service and disposal options.

WEIGHTS AND MEASURES

- » **Max. Flowrate:** ..... *1000HPV*: 600 cfm; *2000HPV*: 600 cfm
- » **Max. Pressure:** ..... 75 psi
- » **Max. Temp:** ..... 150°F
- » **Height:** ..... *1000HPV*: 70"; *2000HPV*: 96"
- » **Diameter:** ..... 48"
- » **Shipping Wt*:** (drum + media) ..... *1000HPV*: 2050 lbs. – 3050 lbs.; *2000HPV*: 3100 lbs. – 5100 lbs.
  (**Media dependent*)



Upflow operation is recommended

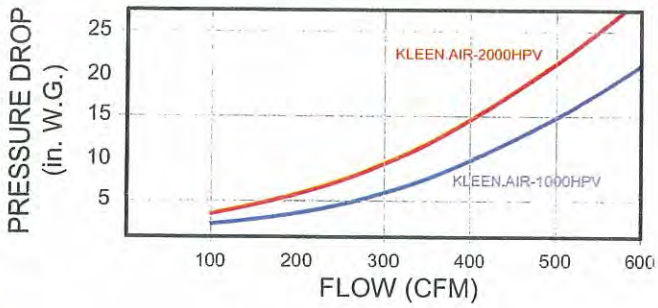
FILTER MEDIA

- » **Types:** ..... ▪Activated Carbon ▪Specialty Media
- » **Volume:** ..... *1000HPV*: 34 cu. ft.; *2000HPV*: 68 cu. ft.
- » **Weight*:** (**Media dependent*) ..... *1000HPV*: 1000 lbs. – 2000 lbs.; *2000HPV*: 2000 lbs. – 4000 lbs.

MISCELLANEOUS

- » **Inlet:** ..... 4" FNPT
- » **Outlet:** ..... 4" FNPT
- » **Interior Coating:** ..... Double-layered epoxy
- » **Internals:** ..... PVC inlet diffuser
- » **Media Access:** ..... 12"x16" top and side manways (yoke & bolt style; neoprene gasket)

PRESSURE DROP DATA



NOTES:

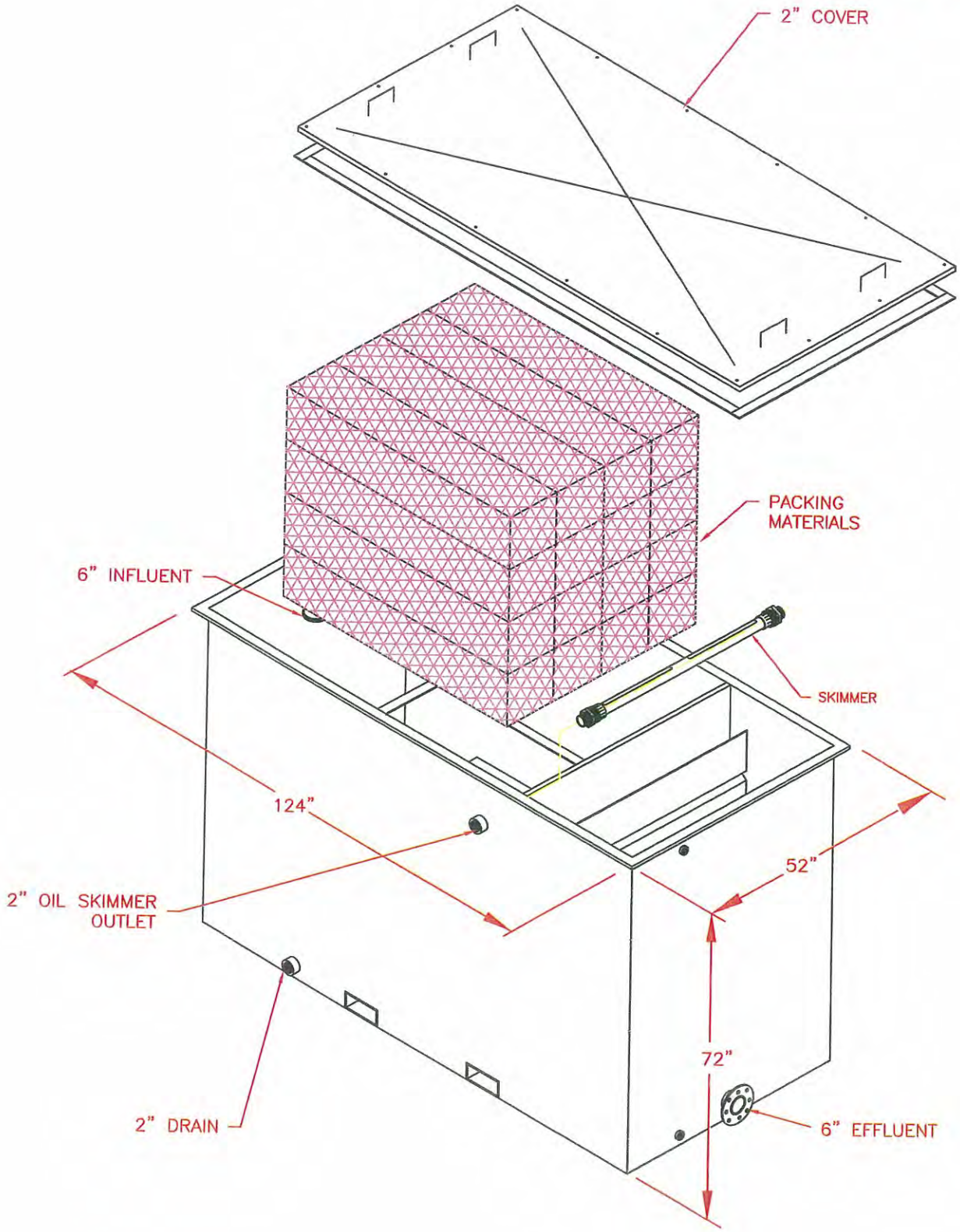
1. In the presence of activated carbon, some contaminants may oxidize, polymerize or otherwise react resulting in the release of heat and become a potential fire hazard. Extreme care should be taken in the design and operation of such applications.
2. Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate procedures for potentially low oxygen spaces must be followed, including all federal and state requirements.

BAKER

To the best of our knowledge the technical data contained herein are true and accurate at the date of issuance and are subject to change without prior notice. No guarantee of accuracy is given or implied because variations can and do exist. NO WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY BAKERCORP, EITHER EXPRESSED OR IMPLIED.

3020 Old Ranch Parkway • Suite 220 • Seal Beach, CA • 562-430-6262

COWS 250S
250 GPM STEEL
OIL/WATER SEPARATOR



Sales Drawing #214040
4/3/02
© CARBONAIR 2002

BAKER

R 8x30 Activated Carbon

R 8x30 mesh activated carbon is a reactivated bituminous coal and coconut shell blended carbon ideal for liquid filtration applications including groundwater and process water.

PHYSICAL PROPERTIES:

Carbon Tetrachloride Activity (CTC):	60%
Apparent Density (lbs./cu.ft.):	30 average
Total Ash Content:	8% maximum
Hardness (ball abrasion):	90 average
Iodine Number:	800 minimum
Mesh Sizes*:	8x30

*Custom sizing available

Standard Packaging: 1000 lb. super sacks. Other packaging available upon request.

These specifications represent general parameters and are subject to change. Please consult with BakerCorp before processing with your applications.

4306 W. 190th Street, Torrance, California 90504
Phone: 310.303.3700 ◊ Fax: 310.406.3001

PRODUCT DATA SHEET

January, 2007

MODERN FIXED AXLE TANK

("V" BOTTOM VERSION)

GENERAL INFORMATION

This tank has a smooth interior wall and "V" shaped bottom for easy cleaning.

WEIGHTS AND MEASURES

- **Capacity:** ..... 500 BBL (21,000 gallons)
- **Height:** ..... 10'-9" (grade to top of tank)
- **Width :** ..... 8'-5"
- **Length:** ..... 44'-10" (overall)
- **Weight:** ..... 25,500 lbs.

STRUCTURAL DESIGN

- **Floor:** ..... ¼"thick ASTM A36 carbon steel "V" bottom sloping from each side into the center
- **Sides/Ends:** ..... ¼" thick ASTM A36 carbon steel
- **Roof Deck:** ..... ¼" thick ASTM A36 carbon steel
- **Wall Frame:** ..... ¼" thick ASTM A36 carbon steel channels (on exterior side of walls)
- **Roof Frame:** ..... ¼" thick ASTM A36 carbon steel channels (on exterior side of walls)

FEATURES

- **Valves:** ..... 2-Front &1-Rear: 4"- wafer butterfly valve. Cast iron body, Buna-N seat & seals, 316 SS stem, Nylon 11 coated ductile iron disk w/ plug and chain. Remote operation handle for rear valve.
- **Relief Valve:** ..... 16 oz./in^2 pressure setting, 0.4 oz./in^2 vacuum setting; Buna-N seal
- **Rear Drain:** ..... 4"-150# tank-side weld neck flange mated to valve and 150# FPT flange
- **Front Drain:** ..... 4"-150# tank-side weld neck flange mated to valve and 150# FPT flange
- **Top Fill Line:** ..... 3" pipe, top of tank, with cap and chain

FEATURES – cont.

- **Top Vapor Connection:** ..... 4"-150# weld neck flange with blind flange (chained) and Buna N gasket
- **Top Manway:** ..... 22" I.D., slotted hinges and 5 - ¾" T or eye bolt with wing nut fasteners, hinged to side of tank, ½" flat plate or 3/8" if domed ASTM A36 steel. Buna N formed gasket, thermally fused.
- **Front Manway:** ..... 22" I.D., slotted hinges and 5 - ¾" T or eye bolt with wing nut fasteners, hinged away from stairs, ½" flat plate or 3/8" if domed ASTM A36 steel. Buna N formed gasket, thermally fused.
- **Side Manway:** ..... 22" I.D., slotted hinges and 5 - ¾" T or eye bolt with wing nut fasteners, mounted on passenger side and hinged to front of tank, ½" flat plate or 3/8" if domed ASTM A36 steel. Buna N formed gasket, thermally fused.
- **Stairway:** ..... Non-slip with handrails and guardrails; OSHA compliant
- **Level Gauge:** ..... Ball style with 2-8" 304 SS floats. Floor supports hold floats ½" off floor.
- **Tires:** ..... 11.00 x 22.5 (nylon tubeless)
- **Axles:** ..... Standard 22,500#, Rockwell automatic slack adjusters, cast drum and hub, 30 service chambers, outboard drums

SURFACE DETAILS

- **Exterior Coating:** ..... High gloss polyurethane paint
- **Interior Coating:** ..... Chemical resistant lining
- **Safety Paint:** ..... Safety yellow – handrails, hatch covers and trip hazard surfaces
- **Decal Mounts:** ..... Removable 10-gauge steel, 48"x48", both sides of tank at top rear. Secured with nylock nuts or bolts with lock washers.

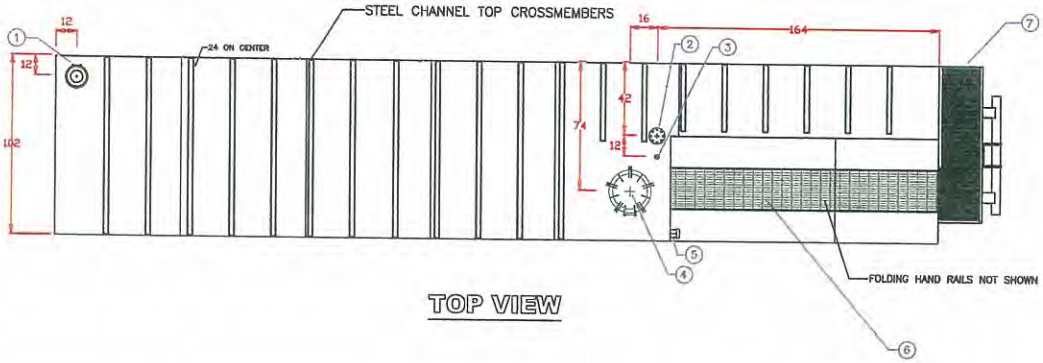
TESTS/CERTIFICATIONS

- **Test Performed:** ..... 100% water tested to full capacity, 3 psi – 20 min test; Level I, II and III inspections on a scheduled basis

BAKER

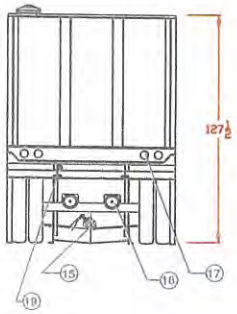
To the best of our knowledge the technical data contained herein are true and accurate at the date of issuance and are subject to change without prior notice. No guarantee of accuracy is given or implied because variations can and do exist. NO WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY BAKERCORP™, EITHER EXPRESSED OR IMPLIED.

3020 Old Ranch Parkway • Suite 220 • Seal Beach, CA • 562-430-6262

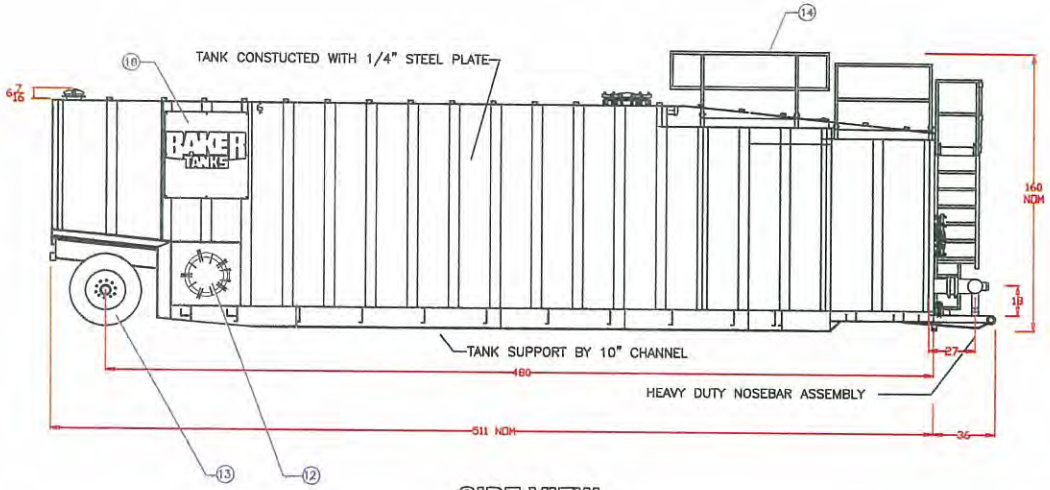


TOP VIEW

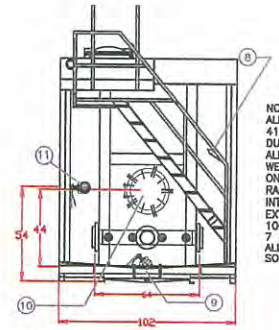
1) FLANGE MOUNT BLAYLOCK LL10 P/V VENT 16OZ SETTING, BAKER SPEC
2) 4" FLANGE WITH BLIND CAP AND CHAIN
3) 1 1/2" COUPLING WITH PLUG
4) MANWAY WITH INTERNAL BARS, 21 1/2"ID, DOMED LID
5) 3" NIPPLE WITH CAP AND CHAIN
6) SAFETY WALK WAY
7) ACCESS STAIRS
8) LEVEL GAUGE W/2-8" STAINLESS STEEL BALL "V" SUPPORT HOLDS BALLS 1/2" OFF FLOOR
9) FRONT DRAIN W/VALVE, BULL PLUG, CHAIN
10) MANWAY, 21 1/2"ID, DOMED LID
11) 4" FLANGE, VALVE, THREADED FLANGE, BULL PLUG, CHAIN
12) MANWAY, 21 1/2" ID, DOMED LID
13) 11.00 X 22.5 TUBLESS TIRE ON 10 HOLE STEEL WHEEL
14) FOLDING HAND RAILS
15) 4" FLANGE, VALVE, THREADED FLANGE, BULL PLUG, CHAIN REMOTE OPERATION HANDLE
16) 25K AXLE, AUTOMATIC SLACK ADJUSTERS, TOP MOUNTED 30 SERVICE CHANBERS, OUTBOARD DRUMS, HUTCH 9700 SUSPENSION, 3 LEAF HIGH ARCH SPRINGS
17) DOT TAIL LIGHTS AND LOWER MARKER LIGHTS, NO TOP LIGHTS
18) 48X48 BOLTED PLATE
19) 1" X 6" PIPE W/WELDED CAP & THREADED CAP



REAR VIEW



SIDE VIEW



NOTE:
ALL VALVES BRAY SERIES 30, CAST IRON BODY, 416SS STEM, BUNA-N SEAT, NYLON 11 COATED DUCTILE IRON DISC, HANDLES AS SHOWN.
ALL WALL AND ROOF RIBS TO BE CONTINUOUSLY WELDED, ALL TANK SHELL SEAMS TO BE WELDED ON BOTH SIDES.
RAILINGS, STAIRS & WALKWAY TO MEET OSHA STDS
INTERIOR COATED PER BAKER SPEC 8.2
EXTERIOR COATED PER BAKER SPEC 7.6
100% CAPACITY WATER TEST
7 PIN ROUND LIGHT PLUG
ALL SHELL 1/4" A-36 STEEL, V-BOTTOM
SOME ITEMS MAY NOT BE SHOWN IN ALL VIEWS

NOTES:
8" INSIDE CONNECTION WITH FLANGED 90 DEG TURN DOWN, 2" OFF FLOOR, MITERED
UPPER 4" FITTED INSIDE WITH FLANGED STEEL GEL LINE
GEL LINE U-BOLTED TO PIPE SUPPORTS
STAIRS FITTED WITH LOWER 1/2 WIDTH SECTION REMOVABLE TO REPLACE WITH FULL WIDTH STEP OPTION

FRONT VIEW

SPECIFICATIONS:
1) Tank Capacity: 21,000 gallons (500 BBL)
2) Tank Weight: 25,500 lbs. (empty)

NOTES:
1. This drawing is a baseline representation for this model of tank. Variations between this drawing and the actual equipment in the field can and do exist, primarily with appurtenance locations, sizes and quantities. Consult your local BakerCorp representative if specific needs exist.
2. THIS TANK IS *NOT DESIGNED FOR TRANSPORTING LIQUIDS*. It should be moved only when empty.
3. Tanks of this type have an internal lining (coating) on the wetted surfaces.
4. This tank is equipped with a pressure/vacuum relief valve set at 1.0 1bs/sq. in. pressure and 0.4 oz/sq.in. vacuum.

The information contained herein is proprietary to BakerCorp and shall not be reproduced or disclosed in whole or in part, or used for any design or manufacture except when user obtains direct written authorization from BakerCorp.

BAKER
3020 OLD RANCH PARKWAY
SEAL BEACH, CA 90740-2751

REV.	DESCRIPTION	DATE	BY
G			
F			
E			
D			
C			
B			
A	Fixed lineweight and text	7/12/05	ZER

SCALE: Do Not Scale	SIZE B	ORIGINAL DWG. DATE 10SEP02
DRAWN BY: P.J.B.	APPROVED BY: —	CAT/CLASS — —
TITLE MODERN MFG. "V" BOTTOM FIXED AXLE TANK		SHEET 1 OF 1
DRAWING NO. S-2-M0007-1-		REV. A

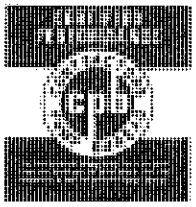
ACU

Submersible Pump

Electric Motor Driven

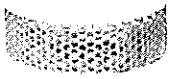
Models S3B1 230V 1P, S3B1–E6 200/3, S3B1 230V 3P, S3B1 460V 3P *and* S3B1 575V 3P

Size 3"



PUMP SPECIFICATIONS

Suction Head: Aluminum Alloy No. 356-T6 With Bonded Nitrile Lining; Maximum Operating Pressure 50 psi (3,5 kg/cm^2).*
Impeller: Ductile Iron No. 65-45-12.
Seal Plate: Aluminum Alloy No. 356-T6 With Bonded Nitrile Lining.
Intermediate: Aluminum Alloy No. 356-T6.
Motor Housing: Aluminum Alloy No. 356-T6.
Rotor Shaft: Stainless Steel Type 416.
Bearings: Upper, Open Single Row Ball Bearing.
Lower, Two Shield, Double Row Ball Bearing.
Shaft Sleeve: Stainless Steel Type 304.
Discharge Flange: Aluminum Alloy No. 356-T6.
Gaskets: Cork with Nitrile Binder (NC710).
O-Rings: Buna-N.
Wetted Hardware: Standard Plated Steel and Stainless Steel.
Strainer: Urethane Coated Steel. 40% Open Area, 0.375" (9,5 mm) Diameter Openings.
Hoisting Bail: Urethane Coated Steel.



Standard Equipment

NEMA Type 3R Rainproof Control Box. Provides On-Off, Circuit Breaker and Motor Overload Protection. *(See Section 130, Pages 80 and 85.)*

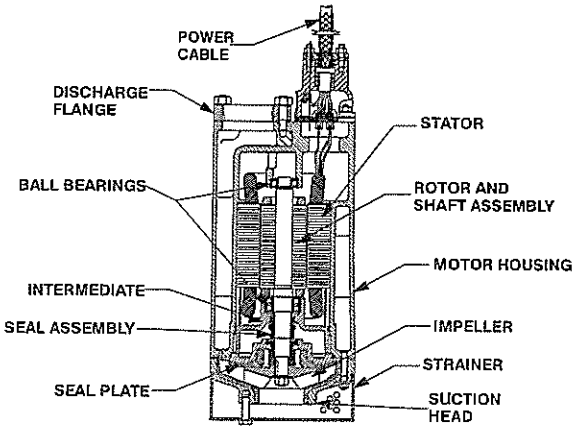
Optional Equipment

Liquid Level Control
a. Turtle Type Pressure Activated Level Switch. *(See Sec.130, Page 150.)*
b. Float Activated Level Switch. *(See Sec.130, Page 150.)*

Staging Adapter Kit: Part No. 48272-003.

MOTOR/CABLE SPECIFICATIONS

Motor: Oil Filled Enclosure; 6.0 H.P.; 3450 R.P.M.;
Single Phase: 230 Volt, 60 Hz, 34 Full Load AMPS, 7.2 kW (Max.)
Three Phase: 200/230/460/575 Volt, 60 Hz, 26.5/23/11.5/9.2 Full Load AMPS, 6.8 kW (Max.)
Power Cable: Type SO/SOOW; 10 AWG. 3 Conductor, Plus 1 Ground. Nominal Length 50 Feet (15 m). Standard. *(Specify Alternate Length at Time of Order.)*
Recommended Generator Size: 15 kW.



WARNING!

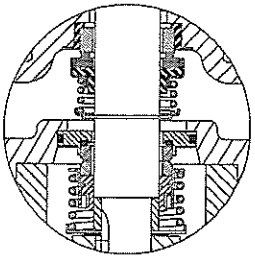
Do not use in explosive atmosphere or for pumping volatile flammable liquids.

SEAL SPECIFICATIONS

Tandem, Oil Lubricated.
Upper Seal: Type 21, Mechanical. Carbon Rotating Face. Ni-Resist Stationary Face. Buna-N Elastomers. Stainless Steel Type 18-8 Cage and Spring.
Lower Seal: Type 2, Mechanical. Tungsten Titanium Carbide Rotating and Stationary Faces. Stainless Steel Type 316 Stationary Seat. Fluorocarbon Elastomers (DuPont Viton® or Equivalent). Stainless Steel Type 304 Cage and Spring.

Maximum Temperature of Liquid Pumped, 122° F (50° C).*

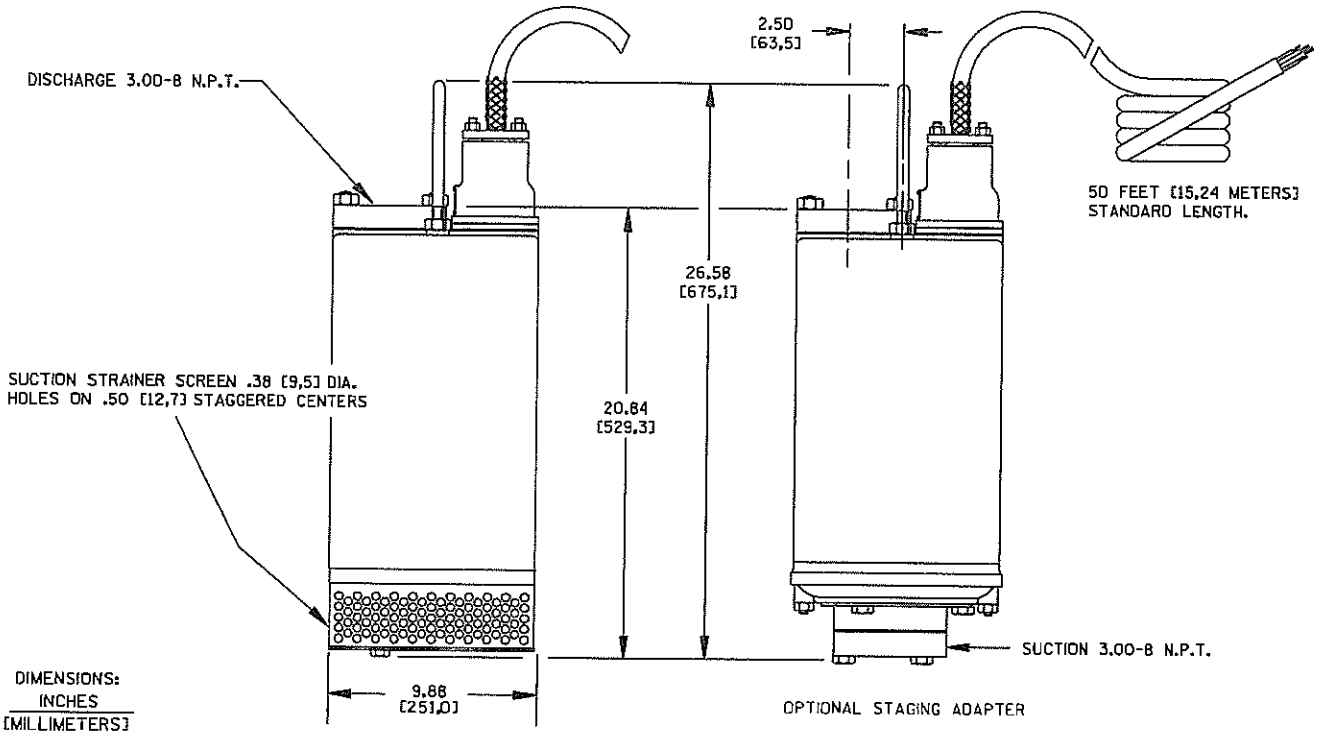
SEAL DETAIL

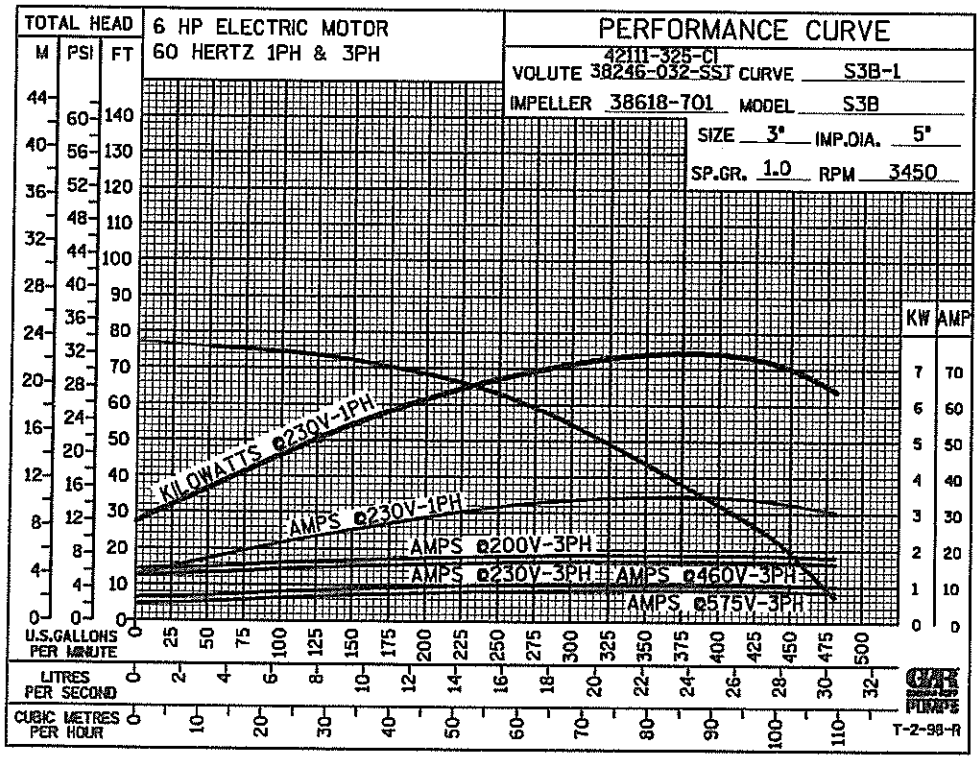


* *Consult Factory for Applications Exceeding Maximum Pressure and/or Temperature Indicated.*

© Copyright by The Gorman-Rupp Company 2001

Specification Data	APPROXIMATE DIMENSIONS and WEIGHTS	NET WEIGHT: 145 LBS. (65,8 KG.) SHIPPING WEIGHT: 155 LBS. (70,3 KG.) EXPORT CRATE SIZE: 7.8 CU. FT. (0,22 CU. M.)
SECTION 130, PAGE 660		





THE GORMAN-RUPP COMPANY ● MANSFIELD, OHIO

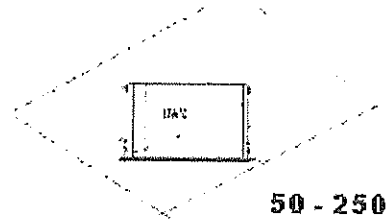
GORMAN-RUPP OF CANADA LIMITED ● ST. THOMAS, ONTARIO, CANADA

Specifications Subject to Change Without Notice

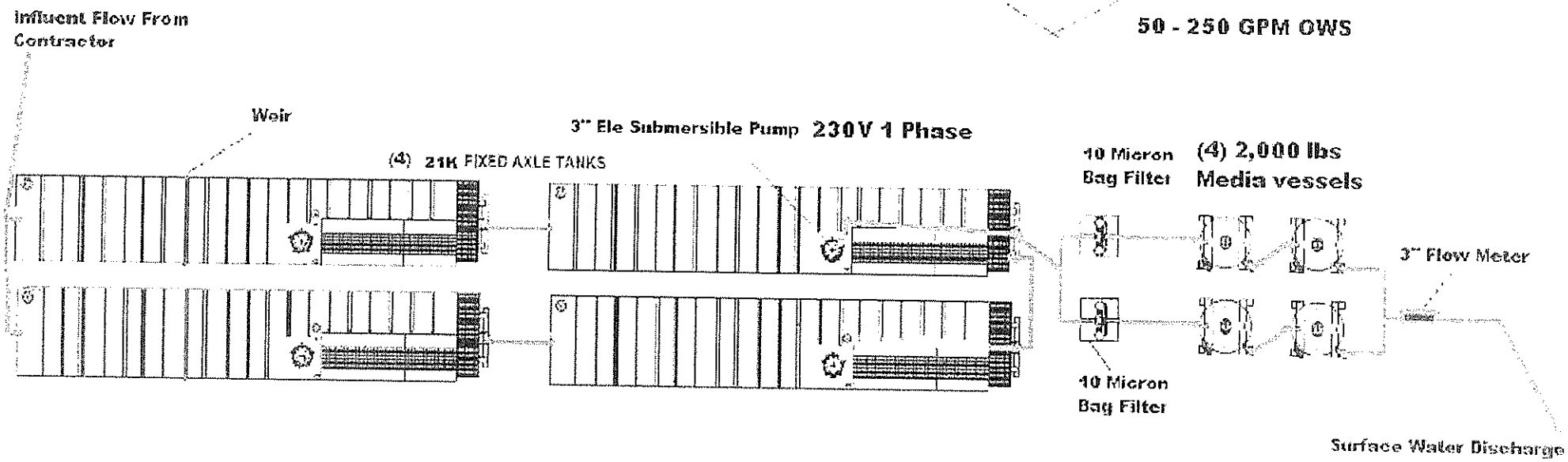
Printed in U.S.A.

© Copyright by The Gorman-Rupp Company 2001

Optional OWS
If required



50 - 250 GPM OWS



MSDS SHEET

BAKER

R 8x30 Activated Carbon

R 8x30 mesh activated carbon is a reactivated bituminous coal and coconut shell blended carbon ideal for liquid filtration applications including groundwater and process water.

PHYSICAL PROPERTIES:

Carbon Tetrachloride Activity (CTC):	60%
Apparent Density (lbs./cu.ft.):	30 average
Total Ash Content:	8% maximum
Hardness (ball abrasion):	90 average
Iodine Number:	800 minimum
Mesh Sizes*:	8x30

*Custom sizing available

Standard Packaging: 1000 lb. super sacks. Other packaging available upon request.

These specifications represent general parameters and are subject to change. Please consult with BakerCorp before processing with your applications.

4306 W. 190th Street, Torrance, California 90504
Phone: 310.303.3700 ◆ Fax: 310.406.3001

Envirotrol Inc.®
P.O. Box 61
432 Green St.
Sewickley, PA 15143
Phone: 412.741.2030 Fax: 412.741.2670

Emergency Phone Number:
724.827.8181

MSDS Date: 5/14/2003

Material Safety Data Sheet

Section 1 – Product Identification

Chemical Name:	Carbon	Trade Name:	Activated/Reactivated Carbon (Granular, Pelletized or Powdered)
Formula:	C	Common Name:	Carbon
CAS Number:	7440-44-0	Chemical Family:	Element, Group IV-A

Section 2 – Ingredients (Typical Values)

Carbon	----------	90-100%
Inert Ingredients	----------	0-10%

Section 3 - Physical And Chemical Data

Boiling Point:	8721° F, 4827° C (Approx.)	Vapor Pressure:	N/A
Vapor Density:	N/A	Solubility in Water:	Insoluble
Specific Gravity:	0.2 – 0.75	Percent, Volatile by Volume:	N/A
Appearance:	Black, Odorless, Pelletized, Powder	Evaporation Rate:	N/A

Section 4 - Fire And Explosion Hazard Data

Flash Point:	N/A
Ignition Point:	500-800° F
Extinguishing Media:	Dry Chemical, Water Fog, Foam
Special Fire Fighting Procedures:	Wear positive pressure self-contained breathing apparatus if fire occurs in enclosed space. Oxygen starved fires may result in the release of carbon monoxide.
Unusual Fires And Explosion Hazards:	Avoid producing suspensions of dust during handling, and avoid exposure of suspensions to sources of ignition. Suspensions of -40 mesh powdered activated carbon may explode if exposed to strong sources of ignition

Section 5 - Health Hazard Data

Eye:	Carbon particles may cause physical irritation if not removed.
Skin Contact:	Constant prolonged exposure may cause dryness or chapping of exposed area
Skin Adsorption:	Not adsorbed by skin.
Ingestion:	No adverse affect unless quantity ingested causes physical discomfort.
Inhalation:	No toxic affect caused by dust. As with any dust, excessive exposure should be avoided. OSHA "Nuisance Dust" limitations should be observed
Systemic And Other Effects:	None

Section 5 - Health Hazard Data *(continued)*

- Eyes: Irrigate with water immediately. Repeat as needed to flush particle from eye. If irritation persists, consult medical personnel.
- Skin: Wash with soap and water to avoid skin drying or chapping.
- Ingestion: N/A
- Inhalation: N/A

Section 6 - Reactivity Data Compatibility Data

- Stability: Avoid contact with strong oxidizing chemicals, such as ozone, perchloric acid, permanganate, sodium chlorite, etc. Exposure to hydrocarbons and vegetable oils may cause slow oxidation until ignition point is reached--contact should be avoided.
- Incompatibility: Strong oxidizing materials.
- Hazardous Decomposition Products: Oxygen starved combustion may yield carbon monoxide.
- Hazardous Polymerization: Will not occur.

Section 7 - Storage Handling And Use

- Action To Take For Spills: Shovel and sweep material into appropriate container. If necessary wash area with water.
- Disposal Method: Reactivation, landfill or incineration, in accordance with applicable regulations.

Section 8 - Personnel Protection

- Ventilation: Local exhaust recommended minimizing dust exposure.
- Respiratory Protection: Approved "nuisance dust" dust masks should be worn in dust exposure areas.
- Protective Clothing: Protective gloves can be worn.
- Eye Protection: Safety glasses with side shields should be worn and eye wash capabilities should be available.

Section 9 - Special Precautions And Additional Information

Precautions to be taken in handling and storage: keep dry; wet carbon will adsorb oxygen and may reduce oxygen levels in confined spaces to dangerous levels. Adequate ventilation and precautions should be employed whenever closed tanks, receptacles or other enclosed spaces containing carbon are accessed. Suspensions of dust should be avoided and exposure of suspensions of dust to sources of ignition should be avoided.

WATER RESOURCE MAP

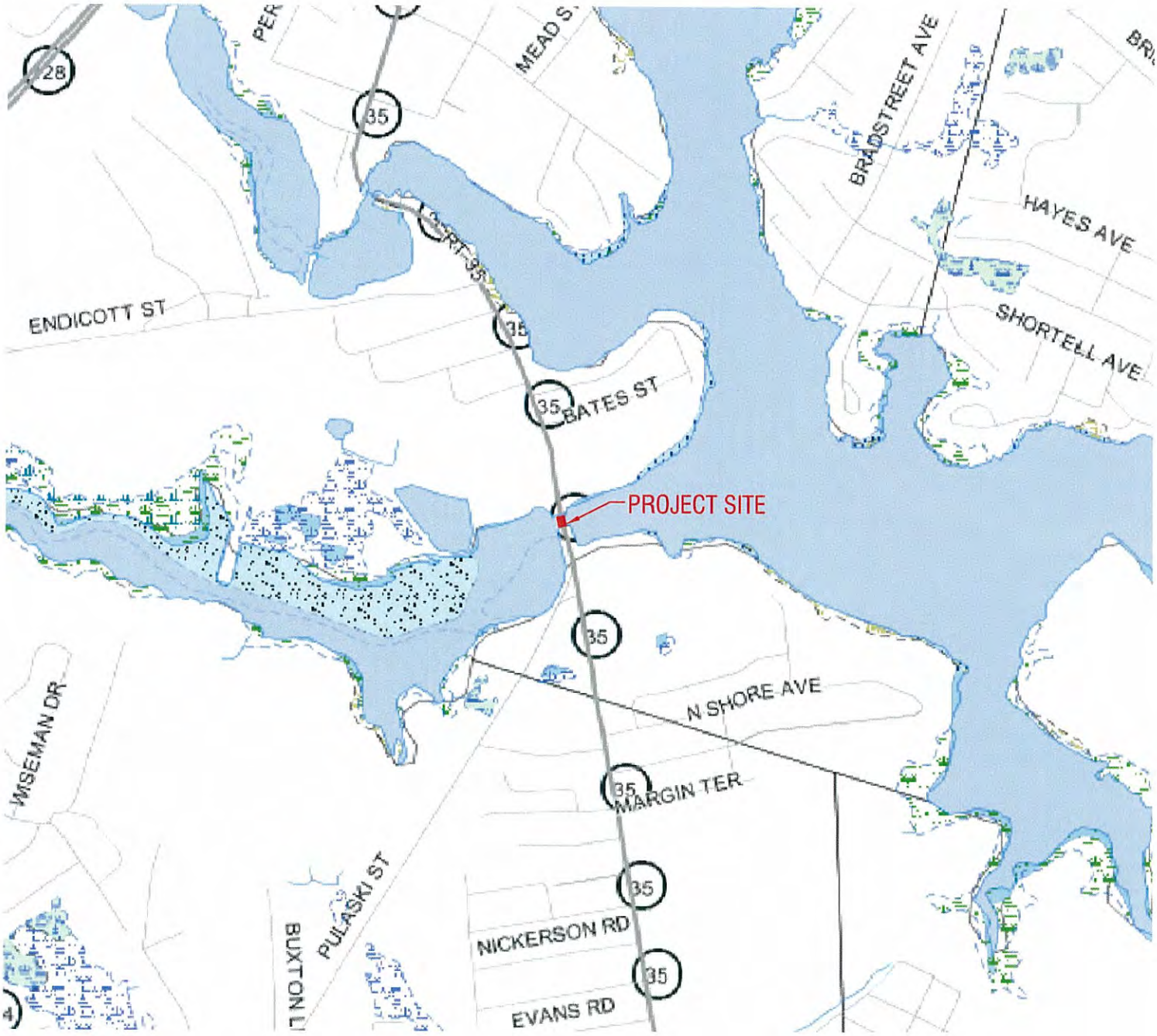
KODIAK, CORPORATION
65 GLENN STREET
LAWRENCE, MASSACHUSETTS 01843
TEL 978.685.0777 | FAX 978.794.1793

JOB: WATER STREET, DANVERS, MA

JOB NUMBER: T0017.28

SKETCH TITLE: WATER RESOURCE MAP

DATE: JULY 7, 2010



WATER RESOURCE MAP
WATER STREET, DANVERS, MA

SCALE: 1"=1000'

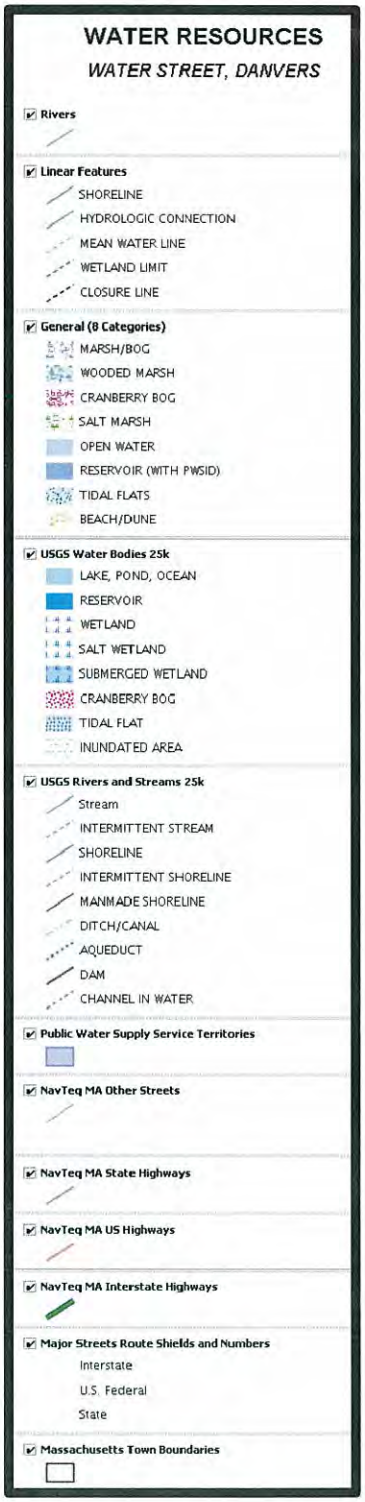
KODIAK, CORPORATION
65 GLENN STREET
LAWRENCE, MASSACHUSETTS 01843
TEL 978.685.0777 | FAX 978.794.1793

JOB: WATER STREET, DANVERS, MA

JOB NUMBER: T0017.28

SKETCH TITLE: LEGEND

DATE: JULY 7, 2010



WATER RESOURCE LEGEND
WATER STREET, DANVERS, MA

SANITARY SEWER LOCATION

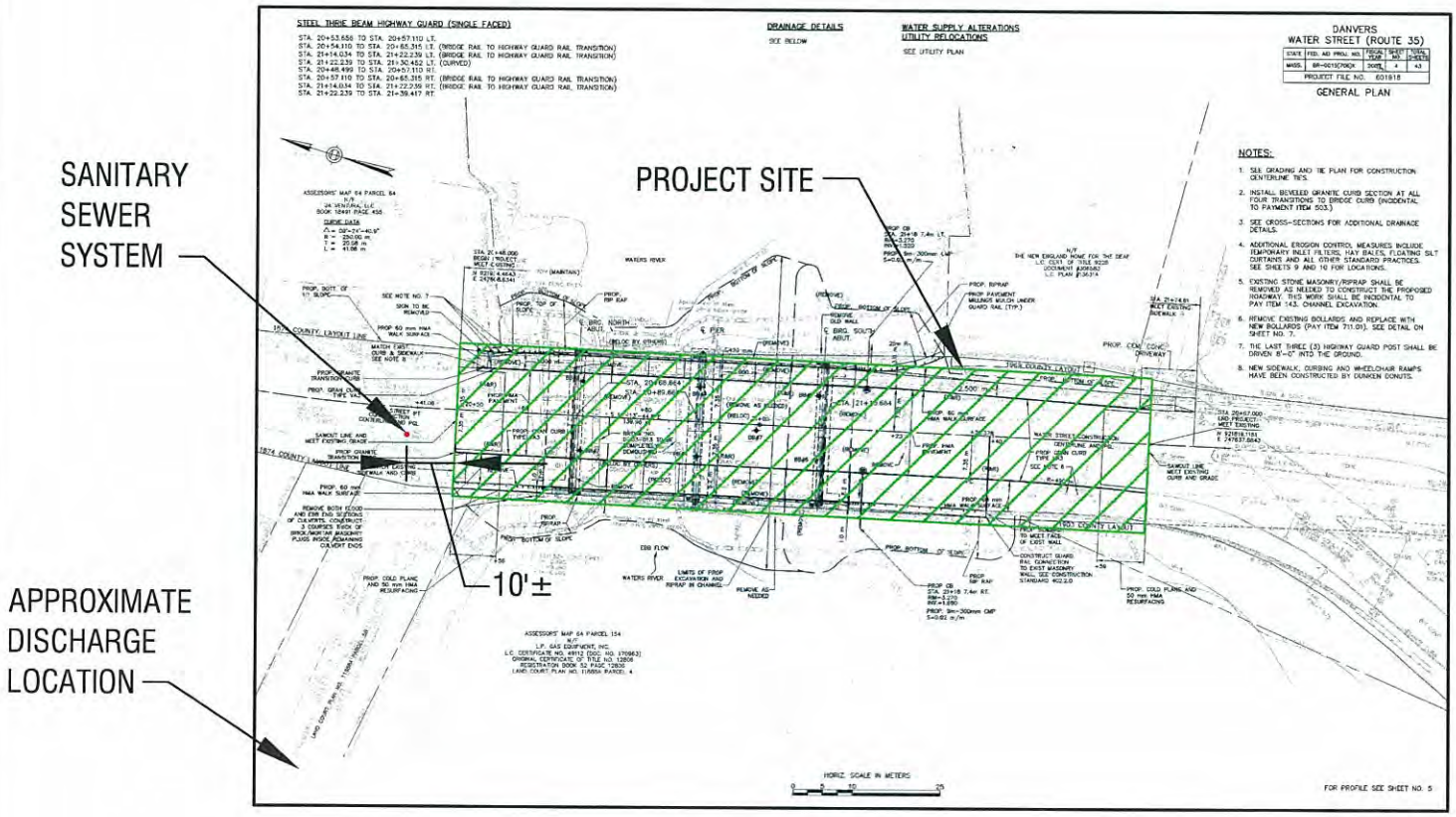
KODIAK, CORPORATION
65 GLENN STREET
LAWRENCE, MASSACHUSETTS 01843
TEL 978.685.0777 | FAX 978.794.1793

JOB: WATER STREET, DANVERS, MA

JOB NUMBER: T0017.28

SKETCH TITLE: SANITARY SEWER LOCATION

DATE: JULY 7, 2010



SEWER LOCATION
WATER STREET, DANVERS, MA

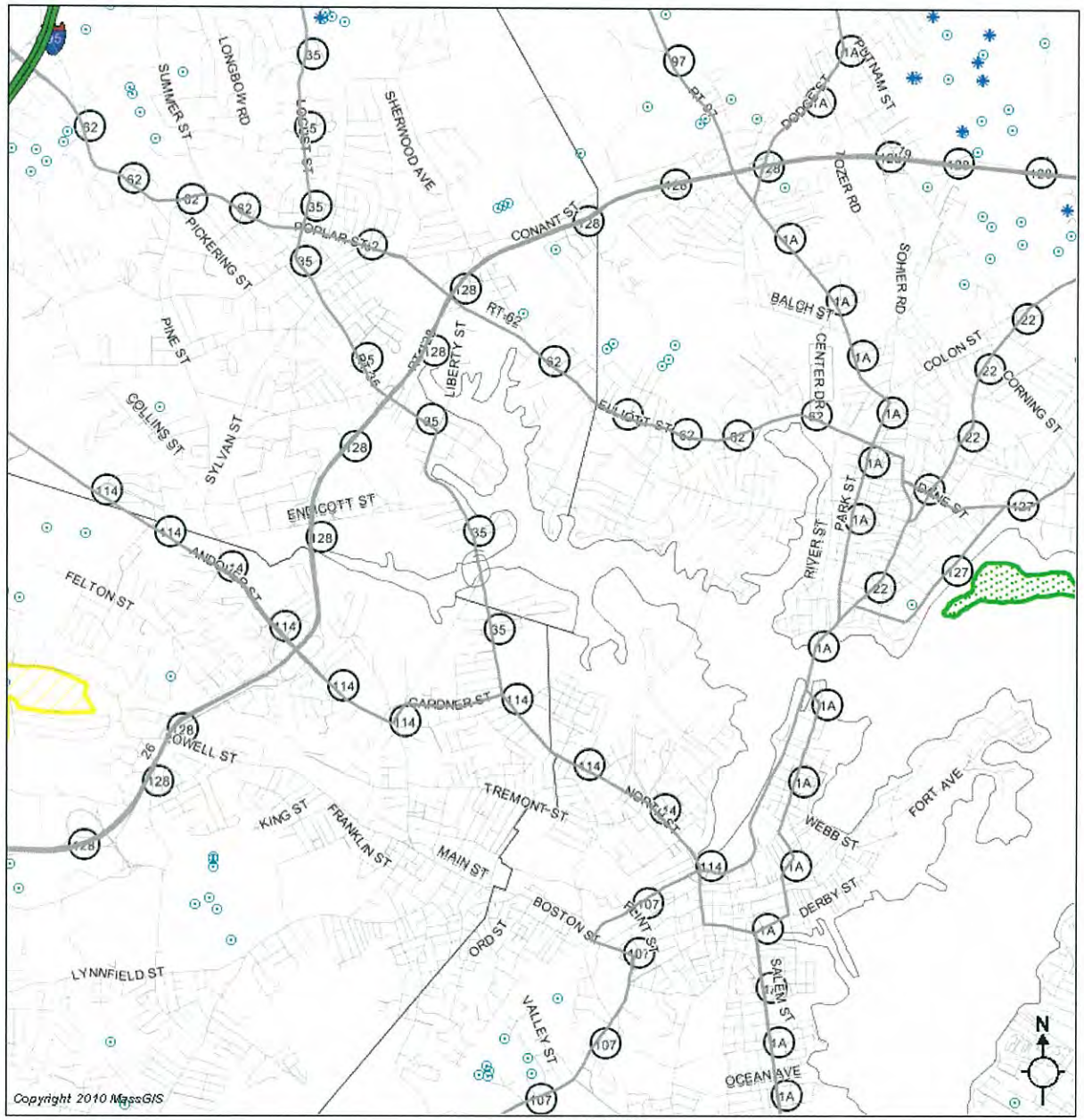
SCALE: NTS

*REFERENCE HIGHWAY SHEET 4, BY HATCH MOTT MacDONALD, DATED 7/14/2008

ENDANGERED SPECIES CRITERIA

Endangered Species Map

Rte. 35 over the Waters River- Danvers, MA



900 m (1:39092)

Source: MassGIS (www.mass.gov/mgis). Maps and photos are for planning purposes only.

WARNING: This map does not meet national map accuracy standards, and cannot be used for engineering purposes. Please consult conditions of use at http://www.state.ma.us/mgis/

- ☑ **NavTeq MA Interstate Highways**
- ☑ **NavTeq MA US Highways**
- ☑ **NavTeq MA State Highways**
- ☑ **NavTeq MA Other Streets**
- ☑ **NavTeq MA Other Streets Names**
- ☑ **Major Streets Route Shields and Numbers**
  - Interstate
  - U.S. Federal
  - State
- ☑ **NHESP Natural Communities**
- ☑ **NHESP Certified Vernal Pools**
- ☑ **Potential Vernal Pools**
- ☑ **NHESP Priority Habitats of Rare Species**
- ☑ **NHESP Estimated Habitats of Rare Wildlife**
- ☑ **Massachusetts Town Boundaries**

Heritage Home

Rare Species by Town

MESA (Massachusetts Endangered Species Act) and Federal Status

Quick Links
» Town Index
» MESA List
» Contact Us

E = Endangered T = Threatened SC = Special Concern

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
DANVERS	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		2002
DANVERS	Amphibian	Scaphiopus holbrookii	Eastern Spadefoot	T		1843
DANVERS	Bird	Asio flammeus	Short-eared Owl	E		Historic
DANVERS	Bird	Circus cyaneus	Northern Harrier	T		Historic
DANVERS	Bird	Gallinula chloropus	Common Moorhen	SC		Historic
DANVERS	Dragonfly/Damselfly	Neurocordulia obsoleta	Umber Shadowdragon	SC		2004
DANVERS	Fish	Notropis bifrenatus	Bridle Shiner	SC		1961
DANVERS	Reptile	Glyptemys insculpta	Wood Turtle	SC		1835
DANVERS	Vascular Plant	Eragrostis frankii	Frank's Lovegrass	SC		1955
DANVERS	Vascular Plant	Eriophorum gracile	Slender Cottongrass	T		1878
DANVERS	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC		1847
DANVERS	Vascular Plant	Rumex pallidus	Seabeach Dock	T		1850
DANVERS	Vascular Plant	Vaccinium vitis-idaea ssp. minus	Mountain Cranberry	E		1897

REFERENCES

Division C: Construction

Major Group 16: Heavy Construction Other Than Building Construction Contractors

Industry Group 161: Highway And Street Construction, Except

1611 Highway and Street Construction, Except Elevated Highways

General and special trade contractors primarily engaged in the construction of roads, streets, alleys, public sidewalks, guardrails, parkways, and airports. Special trade contractors primarily engaged in the construction of private driveways and sidewalks are classified in Industry 1771.

- Airport runway construction-general contractors
- Alley construction-general contractors
- Asphalt paving: roads, public sidewalks, and streets-contractors
- Concrete construction: roads, highways, public sidewalks, and
- Grading for highways, streets, and airport runways-contractors
- Guardrail construction on highways-contractors
- Highway construction, except elevated-general contractors
- Highway signs, installation of-contractors
- Parkway construction-general contractors
- Paving construction-contractors
- Surfacing street and highways-contractors
- Road construction, except elevated-general contractors
- Sidewalk construction, public-contractors
- Street maintenance or repair-contractors
- Street paving-contractors

Division C: Construction

Major Group 16: Heavy Construction Other Than Building Construction Contractors

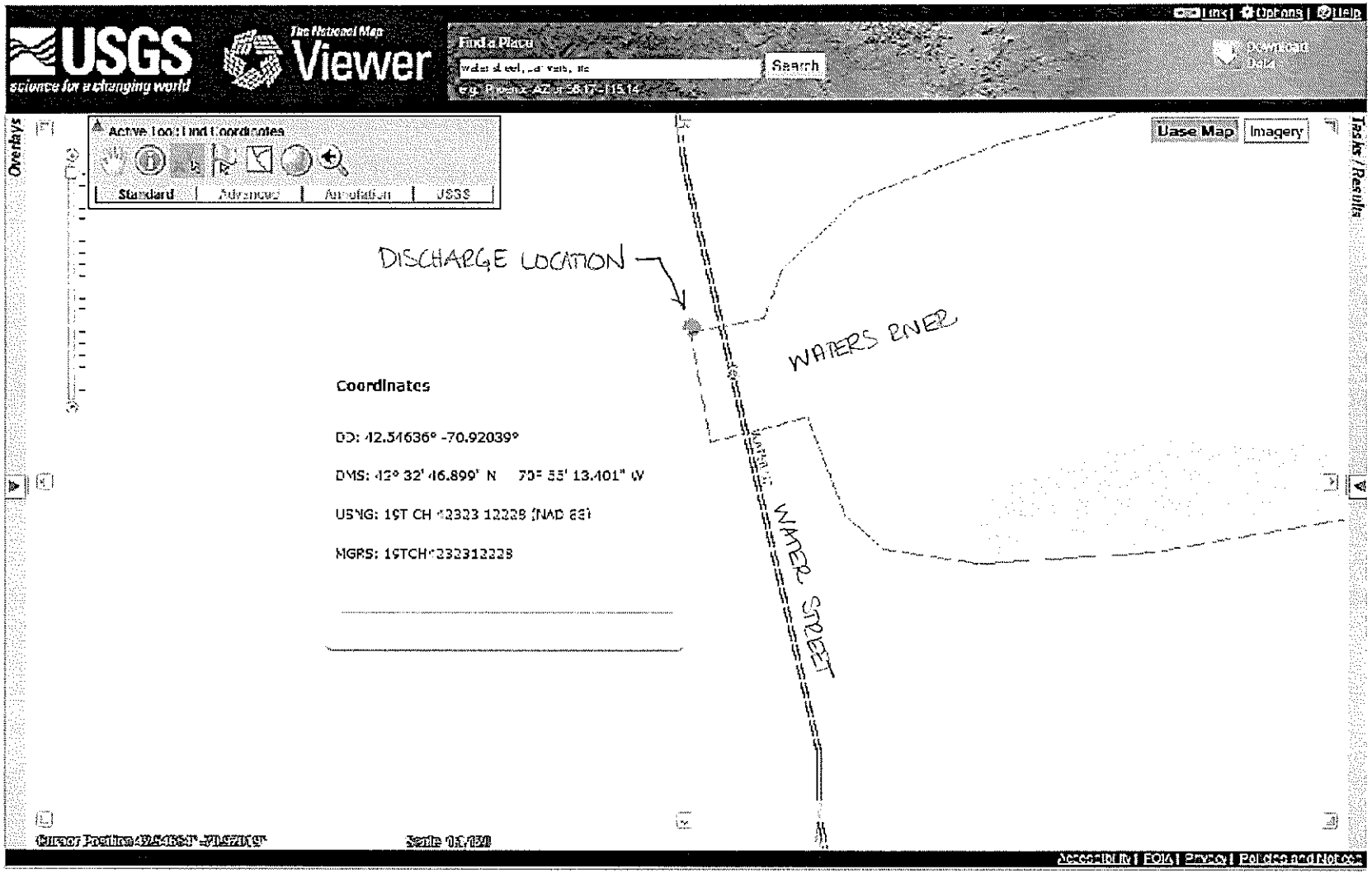
Industry Group 162: Heavy Construction, Except Highway And Street

---

1622 Bridge, Tunnel, and Elevated Highway Construction

General contractors primarily engaged in the construction of bridges; viaducts; elevated highways; and highway, pedestrian, and railway tunnels. General contractors engaged in subway construction are classified in Industry 1629. Special trade contractors primarily engaged in guardrail construction or installation of highway signs is classified in Industry 1611.

- Abutment construction-general contractors
- Bridge construction-general contractors
- Causeway construction on structural supports-general contractors
- Highway construction, elevated-general contractors
- Overpass construction-general contractors
- Trestle construction-general contractors
- Tunnel construction-general contractors
- Underpass construction-general contractors
- Viaduct construction-general contractors

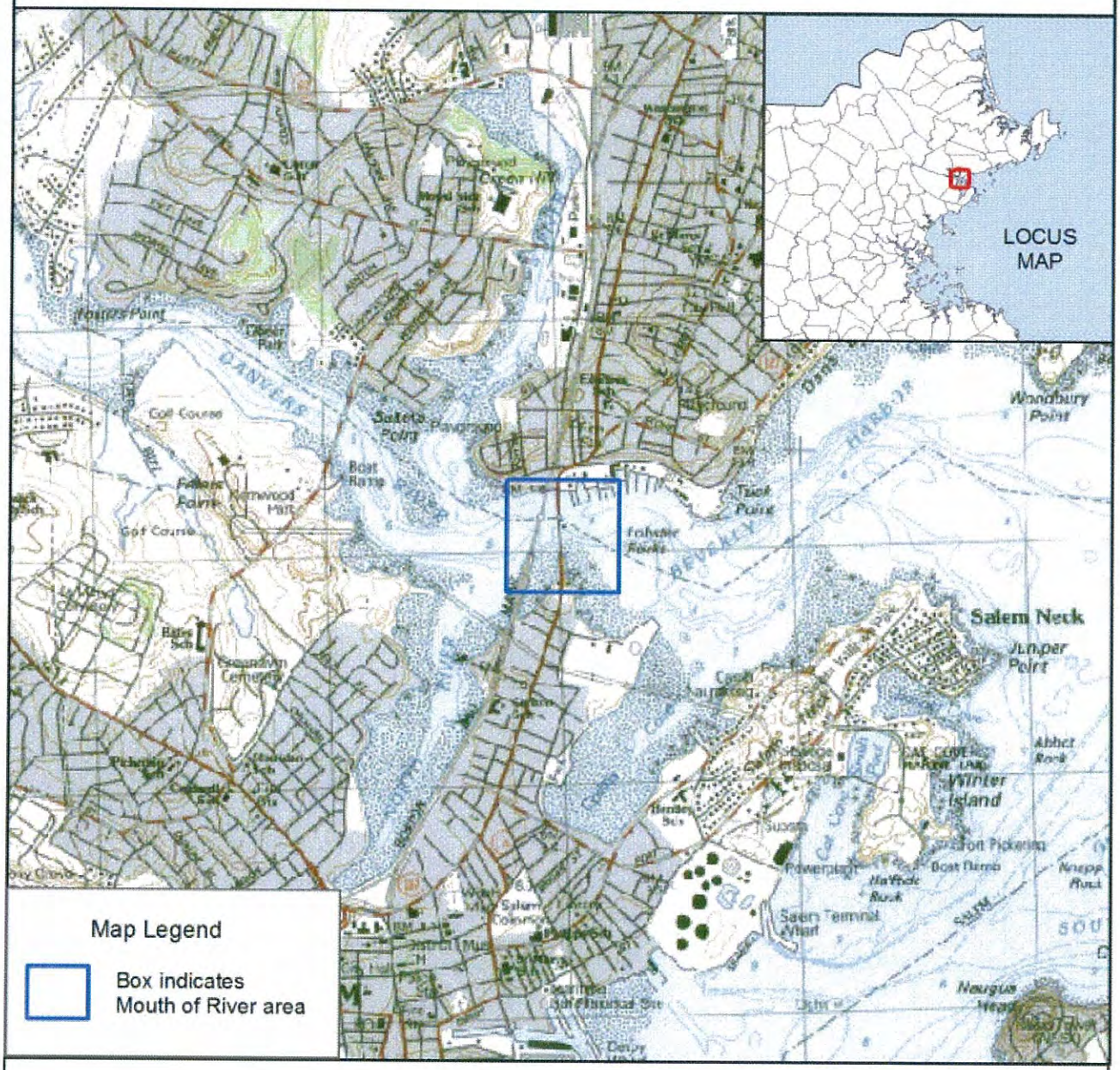

USGS
science for a changing world
The National Map
Viewer
Find a Place
Search
Download Data
Active Tool: Find Coordinates
Standard
Advanced
Annotation
USGS
Base Map
Imagery
Overlays
Tasks / Results
DISCHARGE LOCATION
WATERS RIVER
WATER STREET
Coordinates
DD: 42.34636° -70.92039°
DMS: 42° 32' 46.899" N 70° 55' 13.401" W
USNG: 19T CH 42323 12228 (NAD 83)
MGRS: 19TCH2232312228
Accessibility | FOIA | Privacy | Policies and Notices

March 1, 2005

Massachusetts
Mouth of Coastal River Maps

M.G.L. c.131, s.40
310 CMR 10.58

Town: BEVERLY / SALEM
River: DANVERS RIVER
ID: BEVERLY-SALEM MOR-1



Map Legend

Box indicates Mouth of River area

Mitt Romney, Governor
Robert Golledge, Secretary
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

1:24,000

0 1,000 2,000 3,000 4,000 5,000 Feet

1 inch equals 2,000 feet

Mouth of River lines delineated by DEP Wetlands Program.

Scanned USGS togographic quad maps from MassGIS, 1967-1990.

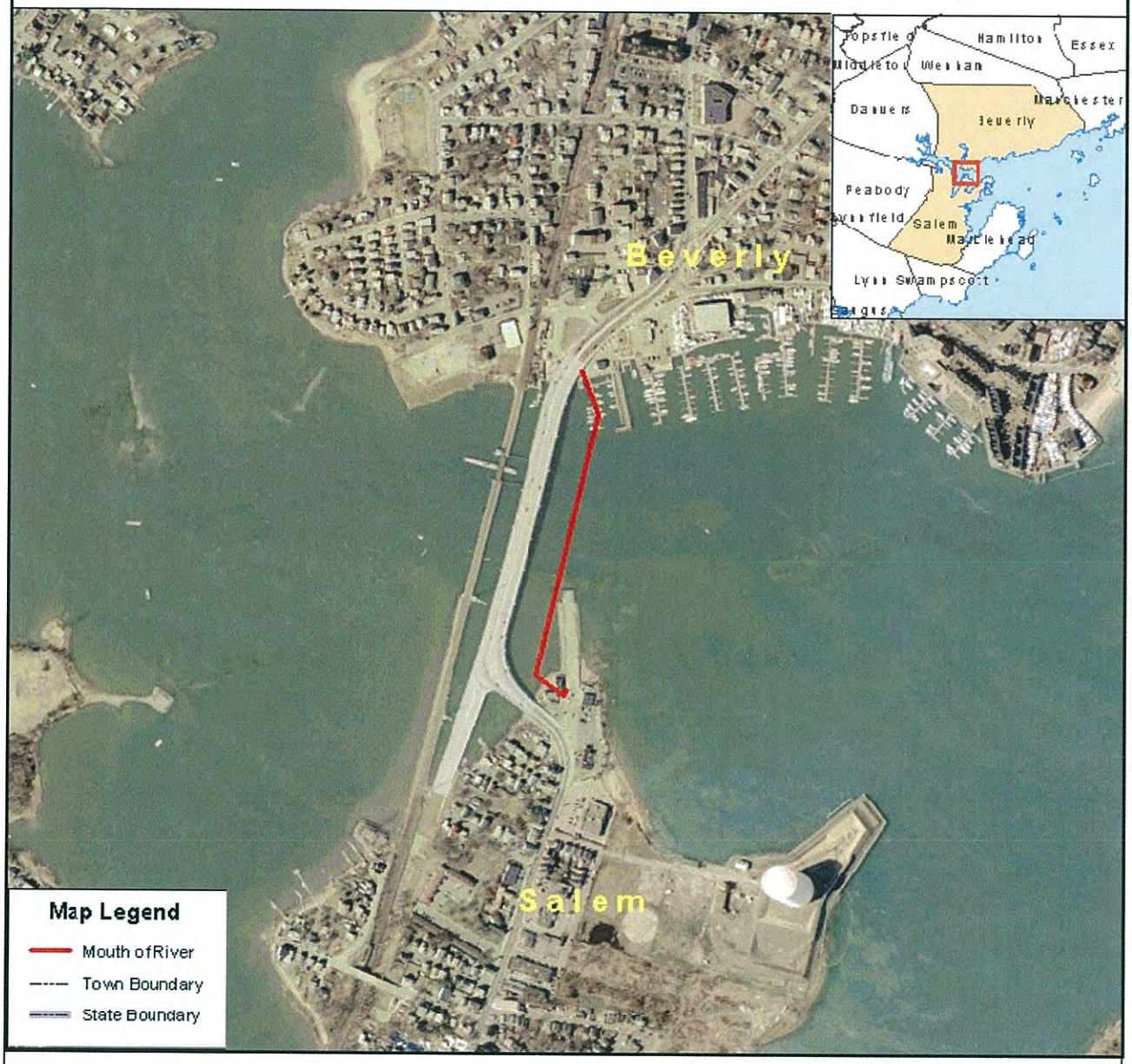
Mass DEP GIS Program

Massachusetts
Mouth of Coastal River Maps

M.G.L. c.131, s.40
310 CMR 10.58

Town: BEVERLY / SALEM
River: DANVERS RIVER
ID: BEVERLY-SALEM MOR-1

March 1, 2005



Mitt Romney, Governor
Ellen Roy Herzfelder, Secretary

1:7,500

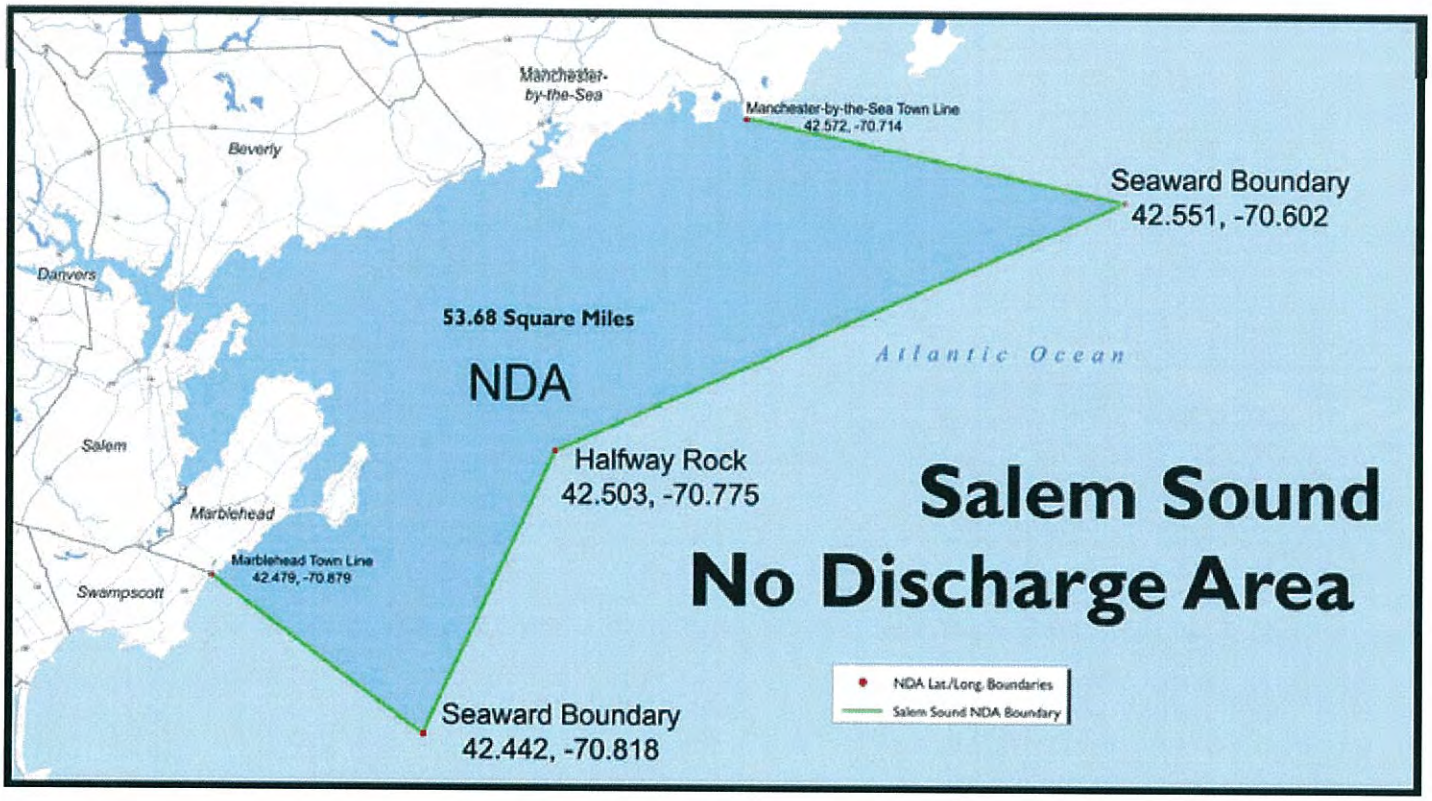
0 250 500 1,000 1,500 Feet

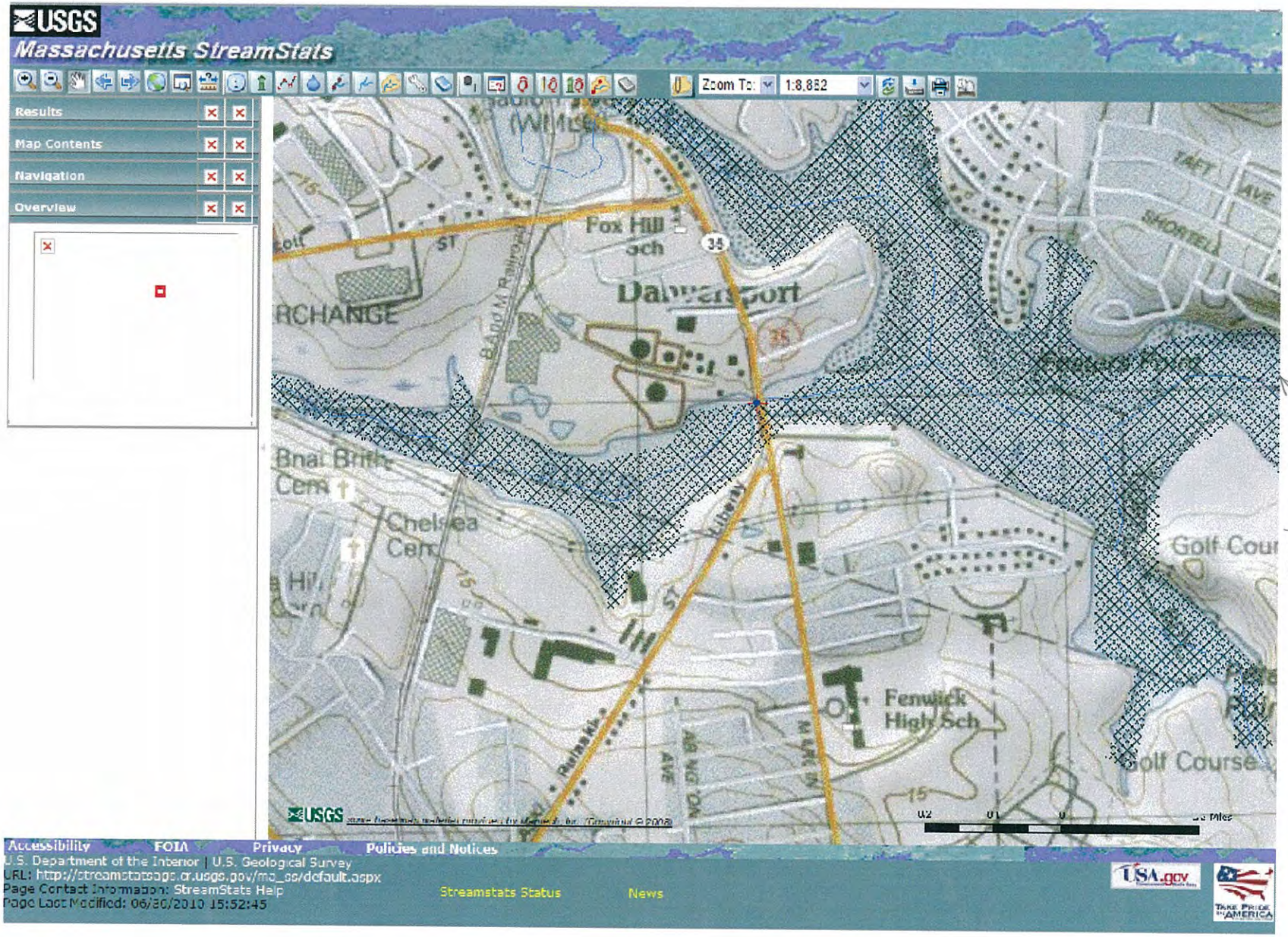
1 inch equals 325 feet

Mouth of River lines delineated by DEP Wetlands Program.

Color OrthoPhoto base map from MassGIS, 2001-2003.

Mass DEP GIS Program


Manchester-by-the-Sea
Beverly
Danvers
Salem
Marblehead
Swampscott
Manchester-by-the-Sea Town Line
42.572, -70.714
Seaward Boundary
42.551, -70.602
53.68 Square Miles
NDA
Atlantic Ocean
Halfway Rock
42.503, -70.775
Salem Sound
No Discharge Area
Marblehead Town Line
42.479, -70.879
Seaward Boundary
42.442, -70.818
NDA Lat./Long. Boundaries
Salem Sound NDA Boundary



HATCH IS BRACKISH WATER AREA, TIDAL ZONE (NO FLOW)

USGS
Massachusetts StreamStats

Streamstats Ungaged Site Report

Date: Wed Jun 30 2010 09:42:06 Mountain Daylight Time
Site Location: Massachusetts
NAD27 Latitude: 42.5461 (42 32 46)
NAD27 Longitude: -70.9209 (-70 55 15)
NAD83 Latitude: 42.5462 (42 32 46)
NAD83 Longitude: -70.9204 (-70 55 13)
ReachCode: 01090001021131
Measure: 0.13
Drainage Area: 2.05 mi2

Warning from delineation: Warning! Outside the hydrologic region (Massachusetts) defined by the study. Accuracy of regression equations is unknown.

Low Flows Basin Characteristics			
100% Statewide Low Flow (2.05 mi2)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	2.05	1.61	149
Mean Basin Slope from 250K DEM (percent)	1.69	0.32	24.6
Stratified Drift per Stream Length (square mile per mile)	0.54	0	1.29
Massachusetts Region (dimensionless)	0	0	1

Probability of Perennial Flow Basin Characteristics			
100% Perennial Flow Probability (2.05 mi2)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	2.05 (above max value 1.99)	0.01	1.99
Percent Underlain By Sand And Gravel (percent)	56.22	0	100
Percent Forest (percent)	6.86	0	100
Massachusetts Region (dimensionless)	0	0	1

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Low Flows Streamflow Statistics					
Statistic	Flow (ft^3/s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
D50	1.99	18		0.77	5.06
D60	1.53	20		0.4	5.86
D70	1.12	24		0.34	3.59
D75	0.91	26		0.29	2.83
D80	0.88	28		0.3	2.54
D85	0.65	32		0.2	2.05
D90	0.57	37		0.18	1.7
D95	0.31	46		0.0815	1.15
D98	0.2	60		0.0487	0.81
D99	0.15	65		0.0328	0.63
M7D2Y	0.31	50		0.0776	1.16
AUGD50	0.71	33		0.21	2.36
M7D10Y	0.14	71		0.0296	0.65

← UNUSUAL FLOW – TIDAL AREA

The equation for estimating the probability of perennial flow is applicable for most areas of Massachusetts except eastern Buzzards Bay, Cape Cod, and the Island regions. The estimate obtained from the equation assumes natural flow conditions at the site. The equation also is best used for sites with drainage areas between 0.01 to 1.99 mi2, as errors beyond for basins beyond these bounds are unknown.

Probability of Perennial Flow Statistics		
Statistic	Value	Standard Error (percent)
PROBPEREN	0.98	

Massachusetts Year 2010 Integrated List of Waters

Proposed Listing of the Condition of Massachusetts' Waters Pursuant to Sections 305(b), 314 and 303(d) of the Clean Water Act

Featuring new water quality assessments for the Chicopee, French, Quinebaug and Nashua watersheds and the Narragansett Bay and Mount Hope Bay Coastal Drainage Areas

Prepared by:

Division of Watershed Management
Watershed Planning Program
Worcester, Massachusetts

CN: 360.0

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Ian A. Bowles, Secretary
Massachusetts Department of Environmental Protection
Laurie Burt, Commissioner
Bureau of Resource Protection
Glenn Haas, Acting Assistant Commissioner
Division of Watershed Management
Glenn Haas, Director

April, 2010

TABLE of CONTENTS

Introduction 3

Water Resources of Massachusetts 4

Costs and Benefits of Clean Water 5

Elements of the Massachusetts Water Quality Management Program 7

Watershed-based Monitoring, Assessment and Implementation 7

Total Maximum Daily Load (TMDL) Program 8

Wastewater Discharge Permitting and Stormwater Management Programs 8

The Water Management Act 9

Nonpoint Source Program 9

Clean Water State Revolving Fund (SRF) 10

Massachusetts Wetlands Protection and Assessment Programs 11

Wetlands Regulatory Program 11

Wetlands Loss and the Wetland Information Resource (WIRE) Project 11

Wetlands Monitoring and Assessment Strategy 12

The Massachusetts Surface Water Quality Standards 13

General Approach to Assessing Massachusetts' Waters 14

Sources of Information 14

Assessment Procedure 15

Assessment Documentation 16

Development of the 2010 Integrated List 19

List Categories 1 – 4 19

List Category 5 – The 303(d) List of Impaired Waters 22

Biological Assessments 22

Fish Consumption Advisories 23

Waters Impaired by Mercury 23

Predictive Models and Evaluated Information 24

Shared Waters 24

Prioritizing Waters for TMDL Development 25

Bibliography 28

TABLE of CONTENTS

Category 1 Waters – "Waters attaining all designated uses" 37

Category 2 Waters – "Attaining some uses; other uses not assessed" 39

Category 3 Waters – "No uses assessed" 57

Category 4a Waters – "TMDL is completed" 73

Category 4c Waters – "Impairment not caused by a pollutant" 83

Category 5 Waters – "Waters requiring a TMDL" 93

Appendix 1 – Category 5 and 4c Impairments *added* to 2010 Integrated List 147

Appendix 2 – 303(d) Impairments and Segments *removed* from the 2010 Integrated List 151

Massachusetts Category 5 Waters
"Waters requiring a TMDL"

NAME	SEGMENT ID	DESCRIPTION	SIZE	POLLUTANT NEEDING TMDL [EPA APPROVAL DATE-DOCUMENT CONTROL NUMBER]
Causeway Brook (9355075)	MA93-47_2008	Headwaters, outlet Dexter Pond, Manchester to confluence with Cat Brook, Manchester.	1.1 miles	-Fecal Coliform
Crane Brook (9355325)	MA93-02_2008	Headwaters east of Route 95, Danvers to inlet Mill Pond, Danvers.	1.8 miles	-Fecal Coliform
Crane River (9355275)	MA93-41_2008	Outlet pump house sluiceway, Purchase Street, Danvers to confluence with Danvers River, Danvers.	0.07 sq mi	-Fecal Coliform
Danvers River (9355200)	MA93-09_2008	Confluence of Porter, Crane and Waters rivers, Danvers to mouth at Beverly Harbor, Beverly/Salem.	0.53 sq mi	-Fecal Coliform
Essex Bay (93901)	MA93-16_2008	The waters landward of Ipswich Bay contained within an imagiany line drawn from the northwestern tip of Gloucester near Coffins Beach to the southern tip of Castle Neck, Ipswich to the eastern most point of Dilly Island, Essex (mouth of Castle Neck River) and then from Cross Island, Essex to Conomo Point, Essex (mouth of Essex River) excluding Walker, Lanes, and Farm creeks.	1.0 sq mi	-Fecal Coliform
Essex River (9354625)	MA93-11_2008	Source east of Southern Avenue, Essex to mouth at Essex Bay, Essex.	0.50 sq mi	-Fecal Coliform
Flax Pond (93023)	MA93023_2008	Lynn	55.4 acres	-Chlordane -DDT -Excess Algal Growth -(Non-Native Aquatic Plants*) -Turbidity
Floating Bridge Pond (93024)	MA93024_2008	Lynn	11.9 acres	-Excess Algal Growth -Turbidity -Phosphorus (Total)
Forest River (9355500)	MA93-10_2008	Approximately 0.4 miles upstream of Loring Avenue, Salem to Salem Harbor, Salem.	0.03 sq mi	-Dissolved oxygen saturation
Foster Pond (93026)	MA93026_2008	Swampscott	4.6 acres	-DDT
Frost Fish Brook (9355250)	MA93-36_2008	Cabot Road, Danvers to Porter River confluence at Route 62, Danvers.	1.0 miles	-Fecal Coliform
Gloucester Harbor (93903)	MA93-18_2008	The waters landward of an imaginary line drawn between Mussel Point and the tip of the Dog Bar Breakwater, Gloucester excluding the Annisquam River.	2.3 sq mi	-Combined Biota/Habitat Bioassessments -Dissolved oxygen saturation -Fecal Coliform
Goldthwait Brook (9355450)	MA93-05_2008	Outlet Cedar Pond, Peabody to confluence with Proctor Brook, Peabody.	3.3 miles	-(Debris/Floatables/Trash*) -Foam/Flocs/Scum/Oil Slicks -(Low flow alterations*) -Oxygen, Dissolved -Fecal Coliform -Phosphorus (Total) -(Alteration in stream-side or littoral vegetative covers*)
Hawkes Brook (9355650)	MA93-32_2008	Headwaters near the Lynn/Lynnfield border to the inlet of Hawkes Pond, Lynnfield.	2.6 miles	-Fecal Coliform
Hawkes Brook (9355650)	MA93-33_2008	Outlet of Hawkes Pond, Saugus to confluence with Saugus River, Saugus.	1.1 miles	-Fecal Coliform
Hawkes Pond (93032)	MA93032_2008	Lynnfield/Saugus	65.2 acres	-Turbidity
Lily Pond (93039)	MA93039_2008	Gloucester	23.7 acres	-Excess Algal Growth -Turbidity -Nutrient/Eutrophication Biological Indicators

Massachusetts Category 5 Waters
"Waters requiring a TMDL"

NAME	SEGMENT ID	DESCRIPTION	SIZE	POLLUTANT NEEDING TMDL [EPA APPROVAL DATE-DOCUMENT CONTROL NUMBER]
Waters River (9355350)	MA93-01_2008	Headwaters west of Route 128, Peabody/Danvers, to confluence with Danvers River, Danvers.	0.09 sq mi	-Fecal Coliform
West Pond (93089)	MA93089_2008	Gloucester	7.1 acres	-Chlorophyll-a -Excess Algal Growth -Secchi disk transparency -Phosphorus (Total)
Parker				
Baldpate Pond (91001)	MA91001_2008	Boxford	59.4 acres	-Metals -Noxious aquatic plants
Eagle Hill River (9152550)	MA91-06_2008	Headwaters near Town Farm Road to the mouth at Plum Island Sound, Ipswich.	0.38 sq mi	-Pathogens
Egypt River (9152925)	MA91-14_2008	East of Jewett Hill (Latitude 42:42:23.40, Longitude 70:51:47.58 DMS), Ipswich to confluence with Muddy Run and Rowley River, Rowley/Ipswich.	0.01 sq mi	-Pathogens
Little River (9153175)	MA91-11_2008	Parker Street, Newbury/Newburyport to confluence with Parker River, Newbury.	0.09 sq mi	-Pathogens
Lower Mill Pond (91008)	MA91008_2008	Rowley	9.9 acres	-Noxious aquatic plants -(Exotic species*)
Mill River (9153200)	MA91-08_2008	Headwaters - Outlet of small unnamed pond between Route 95 and Rowley Road, Boxford to Route 1, Rowley/Newbury.	7.0 miles	-Cause Unknown
Mill River (9153200)	MA91-09_2008	Route 1, Rowley?Newbury to confluence with Parker River, Newbury.	0.08 sq mi	-Pathogens
Paine Creek (9152625)	MA91-03_2008	Headwaters to confluence with Eagle Hill River, Ipswich.	0.08 sq mi	-Pathogens
Parker River (9153150)	MA91-01_2008	Source north of Silver Mine Road, Boxford to Central Street, Newbury.	14.1 miles	-Metals -(Flow alteration*)
Parker River (9153150)	MA91-02_2008	Central Street to mouth at Plum Island Sound, Newbury.	0.61 sq mi	-Pathogens
Pentucket Pond (91010)	MA91010_2008	Georgetown	92.4 acres	-Metals -Pathogens -(Exotic species*)
Plum Island River (8450000)	MA91-15_2008	From "high sandy" sandbar just north of the confluence with Pine Island Creek, Newbury to confluence with Plum Island Sound, Newbury.	0.41 sq mi	-Pathogens
Plum Island Sound (91901)	MA91-12_2008	From the mouth of both the Parker River and Plum Island River, Newbury to the Atlantic Ocean, Ipswich (Includes Ipswich Bay).	4.5 sq mi	-Pathogens
Rock Pond (91012)	MA91012_2008	Georgetown	48.6 acres	-Metals
Rowley River (9152800)	MA91-05_2008	Confluence with Egypt River to mouth at Plum Island Sound, Rowley/Ipswich.	0.28 sq mi	-Pathogens
Quinebaug				
Alum Pond (41001)	MA41001_2008	Sturbridge	198 acres	-Organic enrichment/Low DO
Cady Brook (4129125)	MA41-05_2008	Outlet of Glen Echo Lake to Charlton City WWTP, Charlton.	1.3 miles	-(Flow alteration*) -Pathogens
Cady Brook (4129125)	MA41-06_2008	Charlton City WWTP, Charlton to confluence with Quinebaug River, Southbridge.	5.3 miles	-Nutrients -Organic enrichment/Low DO -(Flow alteration*) -Taste, odor and color
Glen Echo Lake (41017)	MA41017_2008	Charlton	115 acres	-Organic enrichment/Low DO

* - non Pollutant
[ ] – TMDL (Restorative)
< > – TMDL (Protective)

Appendix 2
Waterbody Segments and Integrated List Categories by Major Watershed

NAME	SEGMENT ID	DESCRIPTION	SIZE	CATEGORY
Beaver Brook (9355300)	MA93-37_2008	Headwaters west of Route 95, Danvers to inlet Mill Pond, Danvers.	2.7 miles	5
Beaverdam Brook (9355700)	MA93-30_2008	Headwaters west of Main Street, Lynnfield to confluence with Saugus River (Reedy Meadow), Lynnfield.	1.5 miles	5
Beck Pond (93003)	MA93003_2008	Hamilton	34.6 acres	2
Bennetts Pond Brook (9355625)	MA93-48_2008	Headwaters east of Lynn Fells Parkway (in Bellevue Golf Course), Melrose to confluence with Saugus River, Saugus.	2.4 miles	5
Beverly Harbor (93905)	MA93-20_2008	From the mouth of the Danvers River, Salem/Beverly to Salem Harbor at an imaginary line drawn from Juniper Point, Salem to Hospital Point, Beverley.	1.0 sq mi	5
Birch Pond (93004)	MA93004_2008	Saugus/Lynn	80.4 acres	3
Breeds Pond (93006)	MA93006_2008	Lynn	195 acres	3
Browns Pond (93008)	MA93008_2008	Peabody	24.5 acres	3
Buswell Pond (93009)	MA93009_2008	Gloucester	4.4 acres	3
Cape Pond (93011)	MA93011_2008	Rockport	42.5 acres	5
Cat Brook (9355050)	MA93-29_2008	Headwaters east of Route 128, Manchester to confluence with Manchester Harbor (Route 127), Manchester.	1.7 miles	5
Causeway Brook (9355075)	MA93-47_2008	Headwaters, outlet Dexter Pond, Manchester to confluence with Cat Brook, Manchester.	1.1 miles	5
Cedar Pond (93013)	MA93013_2008	Peabody	34.0 acres	4C
Chebacco Lake (93014)	MA93014_2008	Hamilton/Essex	204 acres	4c
Coy Pond (93016)	MA93016_2008	Wenham	23.2 acres	2
Crane Brook (9355325)	MA93-02_2008	Headwaters east of Route 95, Danvers to inlet Mill Pond, Danvers.	1.8 miles	5
Crane River (9355275)	MA93-38_2008	Outlet Mill Pond, Danvers to outlet of the pump house sluiceway, Purchase Street, Danvers.	0.33 miles	2
Crane River (9355275)	MA93-41_2008	Outlet pump house sluiceway, Purchase Street, Danvers to confluence with Danvers River, Danvers.	0.07 sq mi	5
Crystal Lake (93018)	MA93018_2008	Wakefield/Stoneham	82.0 acres	3
Danvers River (9355200)	MA93-09_2008	Confluence of Porter, Crane and Waters rivers, Danvers to mouth at Beverly Harbor, Beverly/Salem.	0.53 sq mi	5
Days Pond (93092)	MA93092_2008	Gloucester	0.52 acres	4C
Edgewater Office Park Pond (93094)	MA93094_2008	Wakefield	14.6 acres	4C
Essex Bay (93901)	MA93-16_2008	The waters landward of Ipswich Bay contained within an imagiany line drawn from the northwestern tip of Gloucester near Coffins Beach to the southern tip of Castle Neck, Ipswich to the eastern most point of Dilly Island, Essex (mouth of Castle Neck River) and then from Cross Island, Essex to Conomo Point, Essex (mouth of Essex River) excluding Walker, Lanes, and Farm creeks.	1.0 sq mi	5
Essex River (9354625)	MA93-11_2008	Source east of Southern Avenue, Essex to mouth at Essex Bay, Essex.	0.50 sq mi	5
Fernwood Lake (93022)	MA93022_2008	Gloucester	25.4 acres	3
First Pond (93081)	MA93081_2008	Saugus (also known as Upper Griswold Pond).	4.2 acres	4C
Flax Pond (93023)	MA93023_2008	Lynn	55.4 acres	5
Floating Bridge Pond (93024)	MA93024_2008	Lynn	11.9 acres	5
Forest River (9355500)	MA93-10_2008	Approximately 0.4 miles upstream of Loring Avenue, Salem to Salem Harbor, Salem.	0.03 sq mi	5
Foster Pond (93026)	MA93026_2008	Swampscott	4.6 acres	5
Frost Fish Brook (9355250)	MA93-36_2008	Cabot Road, Danvers to Porter River confluence at Route 62, Danvers.	1.0 miles	5
Gloucester Harbor (93903)	MA93-18_2008	The waters landward of an imaginary line drawn between Mussel Point and the tip of the Dog Bar Breakwater, Gloucester excluding the Annisquam River.	2.3 sq mi	5
Goldthwait Brook (9355450)	MA93-05_2008	Outlet Cedar Pond, Peabody to confluence with Proctor Brook, Peabody.	3.3 miles	5
Goose Cove Reservoir (93093)	MA93093_2008	Gloucester	57.7 acres	3
Gravelly Pond (93028)	MA93028_2008	Hamilton	49.7 acres	3
Griswold Pond (93029)	MA93029_2008	Saugus	13.0 acres	4C
Haskell Pond (93031)	MA93031_2008	Gloucester	58.3 acres	3
Hawkes Brook (9355650)	MA93-32_2008	Headwaters near the Lynn/Lynnfield border to the inlet of Hawkes Pond, Lynnfield.	2.6 miles	5
Hawkes Brook (9355650)	MA93-33_2008	Outlet of Hawkes Pond, Saugus to confluence with Saugus River, Saugus.	1.1 miles	5
Hawkes Pond (93032)	MA93032_2008	Lynnfield/Saugus	65.2 acres	5

Appendix 2
Waterbody Segments and Integrated List Categories by Major Watershed

NAME	SEGMENT ID	DESCRIPTION	SIZE	CATEGORY
Shute Brook (9355575)	MA93-49_2008	Approximately 350 feet downstream from Central Street, Saugus to the confluence with the Saugus River, Saugus.	0.01 sq mi	5
Shute Brook (9355575)	MA93-50_2008	From the confluence of Fiske Brook, Saugus to approximately 350 feet downstream from Central Street, Saugus.	0.89 miles	5
Sluice Pond (93071)	MA93071_2008	Lynn	41.5 acres	4C
Spring Pond (93072)	MA93072_2008	Saugus	8.2 acres	4C
Spring Pond (93073)	MA93073_2008	[South Basin] Peabody/Lynn/Salem	66.2 acres	3
Spring Pond (93074)	MA93074_2008	[North Basin] Peabody	16.6 acres	3
Strangman Pond (93076)	MA93076_2008	Gloucester	3.3 acres	5
Swains Pond (93095)	MA93095_2008	Melrose	3.0 acres	4C
Unnamed Tributary (9354855)	MA93-27_2008	Outlet Babson Reservoir, Gloucester to inlet Mill Pond, Gloucester.	0.75 miles	3
Unnamed Tributary (9355755)	MA93-51_2008	Unnamed tributary locally known as "Town Line Brook", from Route 99, Malden to the confluence with the Pines River, Revere.	0.02 sq mi	5
Upper Banjo Pond (93080)	MA93080_2008	Gloucester	10.5 acres	5
Upper Pond (93083)	MA93083_2008	Saugus	12.7 acres	3
Walden Pond (93084)	MA93084_2008	Lynn/Saugus/Lynnfield	223 acres	3
Wallace Pond (93085)	MA93085_2008	Gloucester	21.7 acres	3
Waters River (9355350)	MA93-01_2008	Headwaters west of Route 128, Peabody/Danvers, to confluence with Danvers River, Danvers.	0.09 sq mi	5
West Pond (93089)	MA93089_2008	Gloucester	7.1 acres	5
Parker				
Baldpate Pond (91001)	MA91001_2008	Boxford	59.4 acres	5
Bull Brook (9153000)	MA91-04_2008	Headwaters to inlet Bull Brook Reservoir, Ipswich.	1.4 miles	3
Bull Brook Reservoir (91002)	MA91002_2008	Ipswich	7.2 acres	3
Central Street Pond (91003)	MA91003_2008	Rowley	3.2 acres	3
Crane Pond (91004)	MA91004_2008	Groveland	21.5 acres	3
Dow Brook Reservoir (91005)	MA91005_2008	Ipswich	16.4 acres	3
Eagle Hill River (9152550)	MA91-06_2008	Headwaters near Town Farm Road to the mouth at Plum Island Sound, Ipswich.	0.38 sq mi	5
Egypt River (9152925)	MA91-13_2008	Outlet Bull Brook Reservoir to east of Jewett Hill (Latitude 42:42:23.40, Longitude 70:51:47.58 DMS), Ipswich.	1.1 miles	3
Egypt River (9152925)	MA91-14_2008	East of Jewett Hill (Latitude 42:42:23.40, Longitude 70:51:47.58 DMS), Ipswich to confluence with Muddy Run and Rowley River, Rowley/Ipswich.	0.01 sq mi	5
Jackman Brook (9153350)	MA91-07_2008	Northeast of intersection of Jewett and Tenney Streets to confluence with Wheeler Brook, Georgetown.	0.84 miles	2
Little Crane Pond (91007)	MA91007_2008	West Newbury	3.9 acres	3
Little River (9153175)	MA91-11_2008	Parker Street, Newbury/Newburyport to confluence with Parker River, Newbury.	0.09 sq mi	5
Lower Mill Pond (91008)	MA91008_2008	Rowley	9.9 acres	5
Mill River (9153200)	MA91-08_2008	Headwaters - Outlet of small unnamed pond between Route 95 and Rowley Road, Boxford to Route 1, Rowley/Newbury.	7.0 miles	5
Mill River (9153200)	MA91-09_2008	Route 1, Rowley?Newbury to confluence with Parker River, Newbury.	0.08 sq mi	5
Ox Pasture Brook (9153225)	MA91-10_2008	Headwaters - Outlet of small unnamed impoundment east of Bradford Street to the outlet of a small unnamed impoundment west of Ox Pasture Hill, Rowley.	2.5 miles	2
Paine Creek (9152625)	MA91-03_2008	Headwaters to confluence with Eagle Hill River, Ipswich.	0.08 sq mi	5
Parker River (9153150)	MA91-01_2008	Source north of Silver Mine Road, Boxford to Central Street, Newbury.	14.1 miles	5
Parker River (9153150)	MA91-02_2008	Central Street to mouth at Plum Island Sound, Newbury.	0.61 sq mi	5
Pentucket Pond (91010)	MA91010_2008	Georgetown	92.4 acres	5
Plum Island River (8450000)	MA91-15_2008	From "high sandy" sandbar just north of the confluence with Pine Island Creek, Newbury to confluence with Plum Island Sound, Newbury.	0.41 sq mi	5

North Branch Hoosic River (1100925)	MA11-01_2006	5	2	"Siltation" and "Pathogens" removed based on new assessment. Aquatic life, primary and secondary contact recreation and aesthetic uses met
North Branch Hoosic River (1100925)	MA11-02_2006	5	5	"Siltation" and "Suspended solids" removed based on new assessment
Paull Brook (1100850)	MA11-20_2006	5	5	"Other inorganics", "Nutrients", "Oil and grease" removed based on new assessment and flawed original listing
South Brook (1101475)	MA11-15_2006	5	2	"Pathogens" removed based on new assessment. Aquatic life, primary and secondary contact recreation and aesthetic uses met
West Branch Green River (1100725)	MA11-22_2006	5	2	"Cause Unknown", "Organic enrichment/Low DO" removed based on new assessment. Aquatic life, primary and secondary contact recreation and aesthetic uses met
Housatonic				
East Branch Housatonic River (2105275)	MA21-02_2006	5	5	"Cause Unknown" and "Unknown toxicity" removed based on new assessment.
Goose Pond Brook (2104775)	MA21-07_2006	5	2	"Pathogens" removed based on new assessment. Aquatic life, primary and secondary contact recreation and aesthetic uses met
Housatonic River (2103450)	MA21-04_2006	5	5	"Turbidity" removed and "Non-native Aquatic Plants" added based on new assessment. (*Trapa natans)*
Housatonic River (2103450)	MA21-19_2006	5	5	"Thermal modifications", "Turbidity", "Whole Effluent Toxicity (WET)", "Ambient Bioassays – Acute Aquatic Toxicity", and "Pathogens" removed; "Excess Algal Growth", and "Phosphorus (Total)" added based on new assessment
Housatonic River (2103450)	MA21-20_2006	5	5	"Pathogens", "Taste, odor and color" removed based on new assessment.
Hubbard Brook (2103750)	MA21-15_2006	5	4c	"Pathogens" removed and "Eurasian Water Milfoil" and "Non-Native Aquatic Plants" added based on new assessment.
Konkapot River (2103525)	MA21-26_2006	5	5	"Organic enrichment/Low DO" and "Pathogens" removed based on new assessment
Southwest Branch Housatonic River (2106025)	MA21-17_2006	5	5	"Cause Unknown", and "Other habitat alterations" removed; and "Fecal Coliform" added based on new assessment.
West Branch Housatonic River (2105775)	MA21-18_2006	5	5	"Debris/Floatables/Trash" and "Odors" added and "Sedimentation/Siltation" removed based on new assessment
North Coastal				
Beaver Brook (9355300)	MA93-37_2006	5	5	"Pathogens" removed based on new assessment
Chebacco Lake (93014)	MA93014_2006	5	4c	Northeast mercury TMDL approved
Coy Pond (93016)	MA93016_2006	5	2	"Noxious aquatic plants" and "Turbidity" removed based on new assessment – Aesthetic use met
Crane Brook (9355325)	MA93-02_2006	5	5	"Unionized Ammonia", "Organic enrichment/Low DO", "Other habitat alterations", "Suspended solids" and "Turbidity" removed based on new assessment
Crane River (9355275)	MA93-38_2006	5	2	"Pathogens" and "Turbidity" removed based on new assessment
Forest River (9355500)	MA93-10_2006	5	5	"Pathogens" removed based on new assessment. "Flow alteration" and "Other habitat alterations" were never linked to impairment so were erroneously listed.
Goldthwait Brook (9355450)	MA93-05_2006	5	5	"Unknown toxicity", "Unionized ammonia", "Cause unknown" and "Noxious aquatic plants" removed based on new assessment
Porter River (9355225)	MA93-04_2006	5	5	"Siltation", "Noxious aquatic plants" and "Turbidity" removed based on new assessment
Saugus River (9355550)	MA93-35_2006	5	5	"Organic enrichment/Low DO" removed based on new assessment
Waters River (9355350)	MA93-01_2006	5	5	"Other habitat alterations" removed based on new assessment
Ten Mile				
Cargill Pond (52004)	MA52004_2006	5	5	"Noxious aquatic plants" removed – no excess algae or macrophytes that exhibit blooming conditions – should have been removed as part of original aquatic plant de-listing effort in 2002 and 2004

Massachusetts Cultural Resource Information System

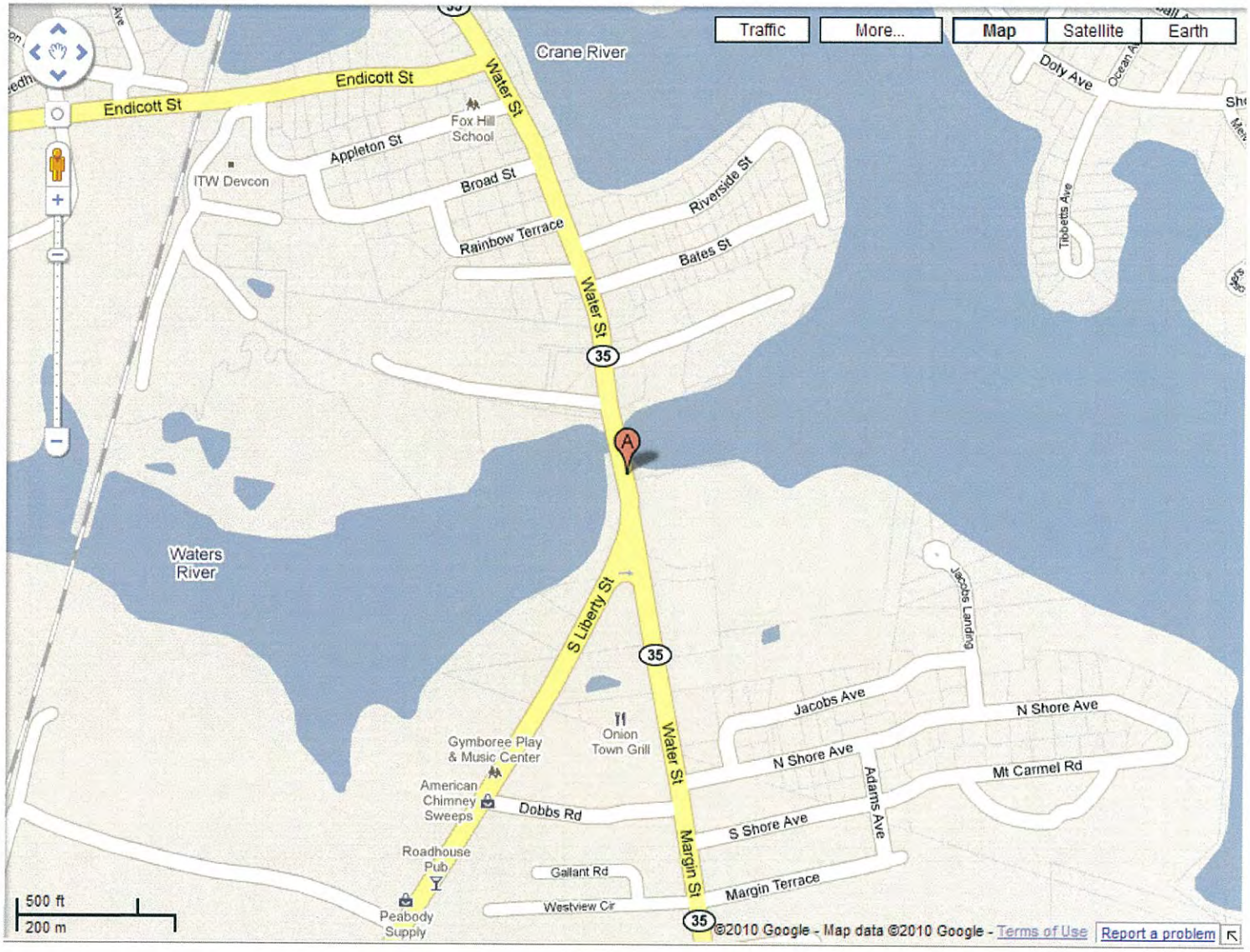
MACRIS

MACRIS Search Results

Search Criteria: Town(s): Danvers; Street Name: water St; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

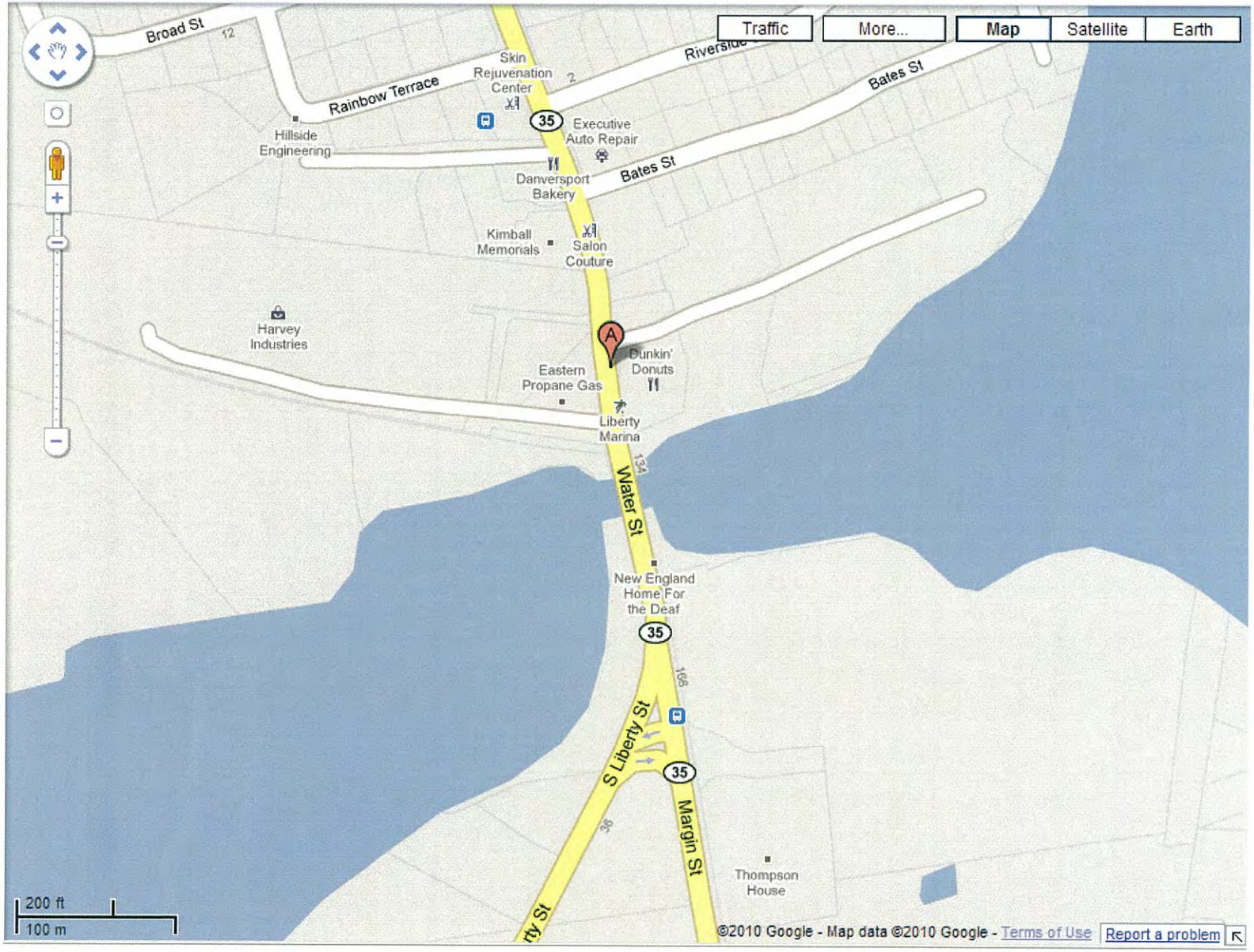
Inv. No.	Property Name	Street	Town	Year
DAN.900	Waters River Bridge	Water St	Danvers	1927
DAN.917	Water Street Bridge Over the Crane River	Water St	Danvers	1980
DAN.937	Hussey, William Penn Equestrian Statue	Water St	Danvers	1916
DAN.322	Danversport Baptist Church	3 Water St	Danvers	1848
DAN.366	Waldron, Edward T. House	5 Water St	Danvers	1847
DAN.367	Ross, Josiah House	6 Water St	Danvers	1878
DAN.368	Hunt, Ebenezer House	7 Water St	Danvers	1846
DAN.323	Danversport School House	10 Water St	Danvers	1895
DAN.622	Woodman - Mead House	12 Water St	Danvers	1870
DAN.623	Warren, J. House	14 Water St	Danvers	1870
DAN.624	Gallivan, Patrick H. Grocery Store	16 Water St	Danvers	1920
DAN.629	George, James Variety Store	18A Water St	Danvers	1920
DAN.369	Bates, Albert Augustus House	19 Water St	Danvers	1889
DAN.625	Batchelder, Dr. House	20 Water St	Danvers	1880
DAN.626	Gould, Andres House	21 Water St	Danvers	1852
DAN.324	Black, Moses - William - Oakes, Nathan House	25-27 Water St	Danvers	1834
DAN.901	Hutchinson, Israel Monument	35 Water St	Danvers	1896
DAN.337	Hutchinson, Israel Jr. - Ober, Jacob L. House	60 Water St	Danvers	1829
DAN.388	Dennett, George B. House	65 Water St	Danvers	1881
DAN.325	Cheever, Thomas House	69 Water St	Danvers	1836
DAN.371	Endicott, Capt. Moses House	73 Water St	Danvers	1799
DAN.372	Endicott, Capt. John Jr. House	75 Water St	Danvers	1798
DAN.326	Fuller, Andrew House	77 Water St	Danvers	1793
DAN.327	Perley, Eliphalet - Porter, Nathan House	79 Water St	Danvers	1774
DAN.328	Fox Hill School	81 Water St	Danvers	1879
DAN.627	Bockliff, J. House	82 Water St	Danvers	1875
DAN.628	Stearns Marine Company of Boston Yacht Yard	124 Water St	Danvers	1935
DAN.329	Riverbank	154 Water St	Danvers	1853

IN VICINITY OF BRIDGE, BUT
BLOCKED FROM DISCHARGE
BY RIVERWALL. (OUTSIDE LIMIT OF WORK)



A = "RIVERBANK" HISTORIC SITE - 154 WATER STREET, DANVERS, MA

- NEAR SITE, BUT NOT IN PATH OF DISCHARGE



A = "STEARNS MARINE COMPANY OF BOSTON YACHT YARD - 124 WATER STREET, DANVERS, MA

- NEAR SITE, BUT NOT IN PATH OF DISCHARGE