



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

**5 Post Office Square, Suite 100
BOSTON, MA 02109-3912**

CERTIFIED MAIL RETURN RECEIPT REQUESTED

JUN 10 2014

Robert C. Atwood
License Site Professional
Resource Control Associates, Inc.
474 Broadway
Pawtucket, RI 02860

Re: Authorization to discharge under the Remediation General Permit (RGP) –
MAG910000. Regan Residence site located at 22 Nantucket Avenue, Oak Bluffs, MA
02557, Dukes County; Authorization # MAG 910623

Dear Mr. Atwood:

Based on the review of a Notice of Intent (NOI) submitted by your firm Resource Controls Associates, Inc., on behalf of John and Mary Regan the home owners of the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants which you are required to monitor. Also indicated on the checklist are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the checklist does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at: <http://www.epa.gov/region1/npdes/mass.html#dgp>.

Please note the enclosed checklist includes parameters you have marked "Believed Present". The checklist also includes other parameters for which your laboratory reports indicated there was insufficient sensitivity to detect these parameters at the minimum levels established in Appendix VI of the RGP.

Also, please note that the metal included on the checklist is a dilution dependent pollutants and subject to limitations based on a dilution factor range (DFR). With the absence of dilution to a wetland marsh receiving the discharge, EPA determined that the DFR for this parameter is in the one and five (1-5) range. (See the RGP Appendix IV for

Massachusetts facilities) Therefore, the limit for iron of 1,000 ug/L, is required to achieve permit compliance at your site.

This general permit and authorization to discharge will expire on September 9, 2015. You have reported this project will terminate on July 31, 2014. You are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,



Thelma Murphy, Chief
Storm Water and Construction
Permits Section

Enclosure

cc: Robert Kubit, MassDEP
Joan Hughes, Oak Bluffs CC

**2010 Remediation General Permit
Summary of Monitoring Parameters^[1]**

NPDES Authorization Number:		MAG910623
Authorization Issued:	June, 2014	
Facility/Site Name:	Regan Residence	
Facility/Site Address:	22 Nuntucket Avenue, Oak Bluffs, MA 02557, Dukes County	
	Email address of owner: Not Provided	
Legal Name of Operator:	Resource Control Associates, Inc.	
Operator contact name, title, and Address:	Robert C. Atwood P.E., LSP	
	Email: cparadis@resourcecontrols.co	
Estimated date of the site's Completion:	July 31, 2014	
Category and Sub-Category:	Petroleum Related Site Remediation. Sub-category B. Fuel Oils and Other Oils Sites	
RGP Termination Date:	September 10, 2015	
Receiving Water:	Wetland- marsh	

Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing ** Me#160.2/ML5ug/L
	2. Total Residual Chlorine (TRC) ¹	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
✓	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
	4. Cyanide (CN) ^{2, 3}	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes	100 ug/L/ Me#8260C/ ML 2ug/L

	<u>Parameter</u>	<u>Effluent Limit/Method# /ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	(BTEX) ⁴	
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
✓	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l/Me#8260C/ML 10ug/L
	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	13. tert-Amyl Methyl Ether (TAME)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
✓	14. Naphthalene ⁵	20 ug/L /Me#8260C/ML 2ug/L
	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o- DCB)	600 ug/L /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m- DCB)	320 ug/L /Me#8260C/ ML 5ug/L
	18. 1,4 Dichlorobenzene (p- DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML 5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML 5ug/L, Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) ⁶	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L& Me#625/ML 5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/L /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L & Me#625/ML 5ug/L
	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
✓	a. Benzo(a) Anthracene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	b. Benzo(a) Pyrene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	c. Benzo(b)Fluoranthene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	d. Benzo(k)Fluoranthene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	e. Chrysene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	f. Dibenzo(a,h)anthracene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	g. Indeno(1,2,3-cd) Pyrene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
✓	h. Acenaphthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	i. Acenaphthylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	j. Anthracene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	l. Fluoranthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	m. Fluorene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	n. Naphthalene ⁵	20 ug/L / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	o. Phenanthrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	p. Pyrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) ^{8,9}	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
✓	38. Chloride	Monitor only/Me# 300.0/ ML 100 ug/L

	Metal Parameters	Total Recoverable MA/Metal Limit H¹⁰ = 50 mg/l CaCO₃, Units = ug/l^(11/12)		Minimum level=ML	
		Saltwater Limits			
	39. Antimony	5.6		ML	10
	40. Arsenic **		36	ML	20
	41. Cadmium **		8.9	ML	10
	42. Chromium III (trivalent) **		100	ML	15
	43. Chromium VI (hexavalent) **		50.3	ML	10
	44. Copper **		3.7	ML	15
	45. Lead **		8.5	ML	20
	46. Mercury **		1.1	ML	02
	47. Nickel **		8.2	ML	20
	48. Selenium **		71	ML	20
	49. Silver		2.2	ML	10
	50. Zinc **		85.6	ML	15
✓	51. Iron	1,000		ML	20

	Other Parameters	Limit
✓	52. Instantaneous Flow	Site specific in CFS
✓	53. Total Flow	Site specific in CFS
	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab ¹³
✓	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab ¹³
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab ¹³
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab ¹⁴
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab ¹⁴
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab ¹⁴
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab ¹⁴
	61. Maximum Change in Temperature in MA - Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab ¹⁴
	62. Maximum Change in Temperature in MA - Any Class SA water body - Coastal	1.5°F; 1/Month/Grab ¹⁴
	63. Maximum Change in Temperature in MA - Any Class SB water body - July to September	1.5°F; 1/Month/Grab ¹⁴
	64. Maximum Change in Temperature in MA -Any Class SB water body - October to June	4°F; 1/Month/Grab ¹⁴

Footnotes:

- ¹ Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).
- ² Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.
- ³ Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).
- ⁴ BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.
- ⁵ Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.
- ⁶ The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
- Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.*
- ⁷ Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
- ⁸ In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
- ⁹ Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).
- ¹⁰ Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.
- ¹¹ For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using $DF \times 1,000 \text{ ug/L}$ (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit = $1,000 \times 2 = 2,000 \text{ ug/L}$, etc. not to exceed the DF=5.
- ¹² Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).
- ¹³ pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.
- ¹⁴ Temperature sampling per Method 170.1

May 22, 2014

Mr. Victor Alvarez
United States Environmental Protection Agency - Region 1
5 Post Office Square, Mail Code OEP06-4
Boston, Massachusetts 02109-3912

SUBJECT: **Notice of Intent (NOI)**
 Remedial General Permit
 Regan Residence
 22 Nantucket Avenue
 Oak Bluffs, Massachusetts

Dear Mr. Alvarez:

Resource Control Associates, Inc. (Resource Controls) has prepared the attached Remediation General Permit (RGP) Notice of Intent (NOI) (Attachment A) on behalf of John Sr. and Mary Regan for the property located at 22 Nantucket Avenue in Oak Bluffs, Massachusetts (the "Site"). Proposed remedial activities include excavation and off-site disposal of kerosene impacted soil and on-site treatment of kerosene impacted groundwater.

A Locus Map depicting the Site and relevant Site features is included in Attachment B (Figure 1). A Site Plan depicting proposed discharge locations and the Site relative to National Heritage & Endangered Species Program (NHESP) priority habitats is included in Attachment B (Figure 2). A Site Detail Plan depicting boring, monitoring well, and test pit locations, water table elevation contours, residence structural supports, proposed limits of excavation, and proposed treatment system components is included Attachment B (Figure 3).

BACKGROUND

On April 7, 2014, Resource Controls was retained to oversee response actions for a release of kerosene to soil in an enclosed crawl space located beneath the on-site residence. The cause and volume of the release was not known, but was assumed to originate from exposed fittings located along a feed line between an existing aboveground storage tank (AST) and furnace. On April 7, 2014, Resource Controls on behalf of the current Site owners, John Sr. and Mary Regan, notified the Massachusetts Department of Environmental Protection (MassDEP) of the release. The MassDEP assigned Release Tracking Number (RTN) 4-25076 to the release.

REMEDIAL ACTIVITIES

The objective of response activities at the Site is to assess the extent of petroleum impacts to soil and groundwater and reduce petroleum concentrations in soil and groundwater to below applicable MassDEP Massachusetts Contingency Plan (MCP) standards. Based on assessment activities conducted at the Site, kerosene impacted soil and groundwater is limited to the footprint of the Site residence.

Environmental Consulting · Engineering · Construction Management

Groundwater at the Site has been gauged in on-site monitoring wells at depths ranging from approximately 2.5 to 3 feet below surface grade.

Proposed response activities include removal and off-site disposal of kerosene impacted soil and on-site treatment of impacted groundwater. Based on assessment activities conducted, the proposed area of excavation (~20 by 30 feet) is located in the crawl space beneath the Site residence. Approximately 66 cubic yards (cy) of soil is anticipated to be excavated from surface grade to a depth of approximately three (3) feet below surface grade. The final extent of the excavation is subject to change based on field observations and confirmatory screening results. Groundwater at the Site ranges from 1.5 to 3 feet below surface grade and, therefore, dewatering of the excavation area is required during soil excavation activities.

During soil excavation activities groundwater shall be purged from the excavation area and stored in one (1) 21,000-gallon frac tank. A submersible pump shall be utilized to pump water from the frac tank through two (2) bag filters units, two (2) 2,000-pound carbon units, and one (1) flow meter prior to discharge to the wetland marsh located at the southern portion of the Site property. The average effluent discharge flow has been estimated to be approximately 20 to 25 gallons per minute. All treatment system units shall be accessible for maintenance, monitoring, and sampling purposes. Samples of the treatment system influent and effluent shall be collected in accordance with applicable RGP requirements. A Proposed System Layout Plan depicting the configuration of the proposed treatment system is included in Attachment A (Figure 4).

GROUNDWATER SAMPLING

During assessment activities conducted at the Site, Resource Controls collected groundwater samples from four (4) on-site monitoring wells (MW-1, MW-2, MW-3 and MW-4) for analysis of extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbons (VPH). Laboratory analytical results revealed no detection of EPH or VPH carbon fractions or target analytes. A copy of the laboratory analytical report is included as Attachment C. Monitoring well locations are depicted on the Site Detail Plan included as Figure 3.

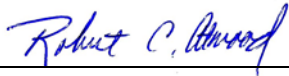
ADDITIONAL INFORMATION

Resource Controls is currently consulting with the United States Fish and Wildlife Service and the Massachusetts National Heritage and Endangered Species Program to ensure no threatened or endangered habitats will be affected by the discharge event.

Thank you very much for your consideration. If you have any questions, please contact the undersigned at your convenience.

Very truly yours,

RESOURCE CONTROL ASSOCIATES, INC.



Robert C. Atwood, P.E., LSP
President and CEO

Attachments: Attachment A: Notice of Intent (NOI)
Attachment B: Locus Map
Site Plan
Site Detail Plan
Proposed System Layout Plan
Attachment C: Laboratory Analytical Report

cc: Mr. John Regan, Jr.

ATTACHMENT A

Notice of Intent (NOI)

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 :		Facility/site mailing address:	
Location of facility/site : longitude: _____ latitude: _____	Facility SIC code(s):	Street:	
b) Name of facility/site owner :		Town:	
Email address of facility/site owner:	State:	Zip:	County:
Telephone no. of facility/site owner :			
Fax no. of facility/site owner :	Owner is (check one): 1. Federal____ 2. State/Tribal____ 3. Private____ 4. Other ____ if so, describe:		
Address of owner (if different from site):			
Street:			
Town:	State:	Zip:	County:
c) Legal name of operator :	Operator telephone no:		
	Operator fax no.:		Operator email:
Operator contact name and title:			
Address of operator (if different from owner):	Street:		
Town:	State:	Zip:	County:

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: _____
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.	
<u>Activity Category</u>	<u>Activity Sub-Category</u>
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 Sumps and Dikes ____ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ____
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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:	
b) Provide the following information about each discharge:	
1) Number of discharge points:	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow _____ Is maximum flow a design value ? Y ____ N ____ Average flow (include units) _____ Is average flow a design value or estimate? _____
3) Latitude and longitude of each discharge within 100 feet: pt.1: lat. _____ long. _____; 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): _____	5) Is the discharge intermittent ____ or seasonal ____? Is discharge ongoing? Y ____ N ____
c) Expected dates of discharge (mm/dd/yy): start _____ end _____	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: 1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).	

3. Contaminant information.

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.

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
1. Total Suspended Solids (TSS)											
2. Total Residual Chlorine (TRC)											
3. Total Petroleum Hydrocarbons (TPH)											
4. Cyanide (CN)	57125										
5. Benzene (B)	71432										
6. Toluene (T)	108883										
7. Ethylbenzene (E)	100414										
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207										
9. Total BTEX ²	n/a										
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) ³	106934										
11. Methyl-tert-Butyl Ether (MtBE)	1634044										
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650										

* 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.

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
13. tert-Amyl Methyl Ether (TAME)	9940508										
14. Naphthalene	91203										
15. Carbon Tetrachloride	56235										
16. 1,2 Dichlorobenzene (o-DCB)	95501										
17. 1,3 Dichlorobenzene (m-DCB)	541731										
18. 1,4 Dichlorobenzene (p-DCB)	106467										
18a. Total dichlorobenzene											
19. 1,1 Dichloroethane (DCA)	75343										
20. 1,2 Dichloroethane (DCA)	107062										
21. 1,1 Dichloroethene (DCE)	75354										
22. cis-1,2 Dichloroethene (DCE)	156592										
23. Methylene Chloride	75092										
24. Tetrachloroethene (PCE)	127184										
25. 1,1,1 Trichloro-ethane (TCA)	71556										
26. 1,1,2 Trichloro-ethane (TCA)	79005										
27. Trichloroethene (TCE)	79016										

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
28. Vinyl Chloride (Chloroethene)	75014										
29. Acetone	67641										
30. 1,4 Dioxane	123911										
31. Total Phenols	108952										
32. Pentachlorophenol (PCP)	87865										
33. Total Phthalates (Phthalate esters) ⁴											
34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	117817										
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)											
a. Benzo(a) Anthracene	56553										
b. Benzo(a) Pyrene	50328										
c. Benzo(b)Fluoranthene	205992										
d. Benzo(k)Fluoranthene	207089										
e. Chrysene	21801										
f. Dibenzo(a,h)anthracene	53703										
g. Indeno(1,2,3-cd) Pyrene	193395										
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)											

⁴The sum of individual phthalate compounds.

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
h. Acenaphthene	83329										
i. Acenaphthylene	208968										
j. Anthracene	120127										
k. Benzo(ghi) Perylene	191242										
l. Fluoranthene	206440										
m. Fluorene	86737										
n. Naphthalene	91203										
o. Phenanthrene	85018										
p. Pyrene	129000										
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.										
38. Chloride	16887006										
39. Antimony	7440360										
40. Arsenic	7440382										
41. Cadmium	7440439										
42. Chromium III (trivalent)	16065831										
43. Chromium VI (hexavalent)	18540299										
44. Copper	7440508										
45. Lead	7439921										
46. Mercury	7439976										
47. Nickel	7440020										
48. Selenium	7782492										
49. Silver	7440224										
50. Zinc	7440666										
51. Iron	7439896										
Other (describe):											

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>

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

<i>Step 1:</i> 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?
<i>Step 2:</i> 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:_____DF:_____ Metal:_____DF:_____ Metal:_____DF:_____ Metal:_____DF:_____ Etc.	Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y____ N____ If 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:

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):			

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 _____ gpm Maximum flow rate of treatment system _____ gpm

Design flow rate of treatment system _____ gpm

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

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): _____
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:					
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: 1. For multiple discharges, number the discharges sequentially. 2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.					
d) Provide the state water quality classification of the receiving water _____					
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water _____ 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)? _____ 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.

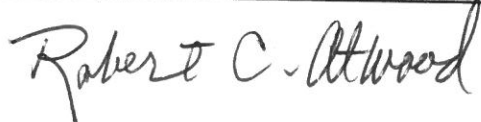
- a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?
A ____ B ____ C ____ D ____ E ____ F ____
- b) If you selected Criterion D or F, has consultation with the federal services been 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?
1 ____ 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.

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:	Regan Residence
Operator signature:	
Printed Name & Title:	Robert C. Atwood P.E., LSP
Date:	5/22/2014

ATTACHMENT B

Figures



Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs
1979 USGS Topographic Map -EDGARTOWN, Massachusetts Quadrangle

LOCUS MAP

22 NANTUCKET AVENUE
OAK BLUFFS, MASSACHUSETTS



DRAWN BY

PROJECT

PRINT DATE

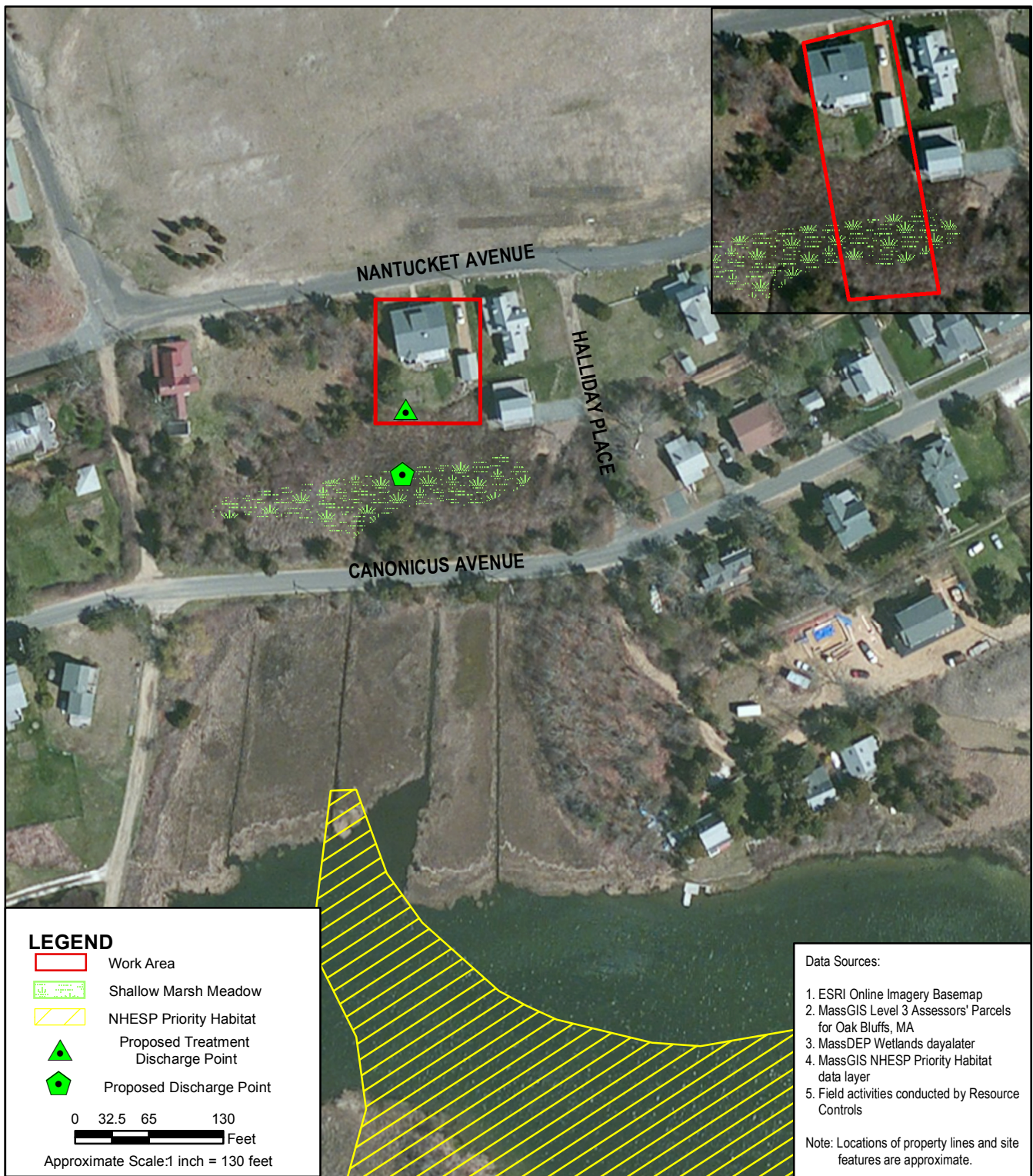
FIGURE

BPC

7244

04/24/2014

1



SITE PLAN

**22 NANTUCKET AVENUE
OAK BLUFFS, MASSACHUSETTS**

DRAWN BY

BPC

PROJECT

7244

PRINT DATE

05/12/2014

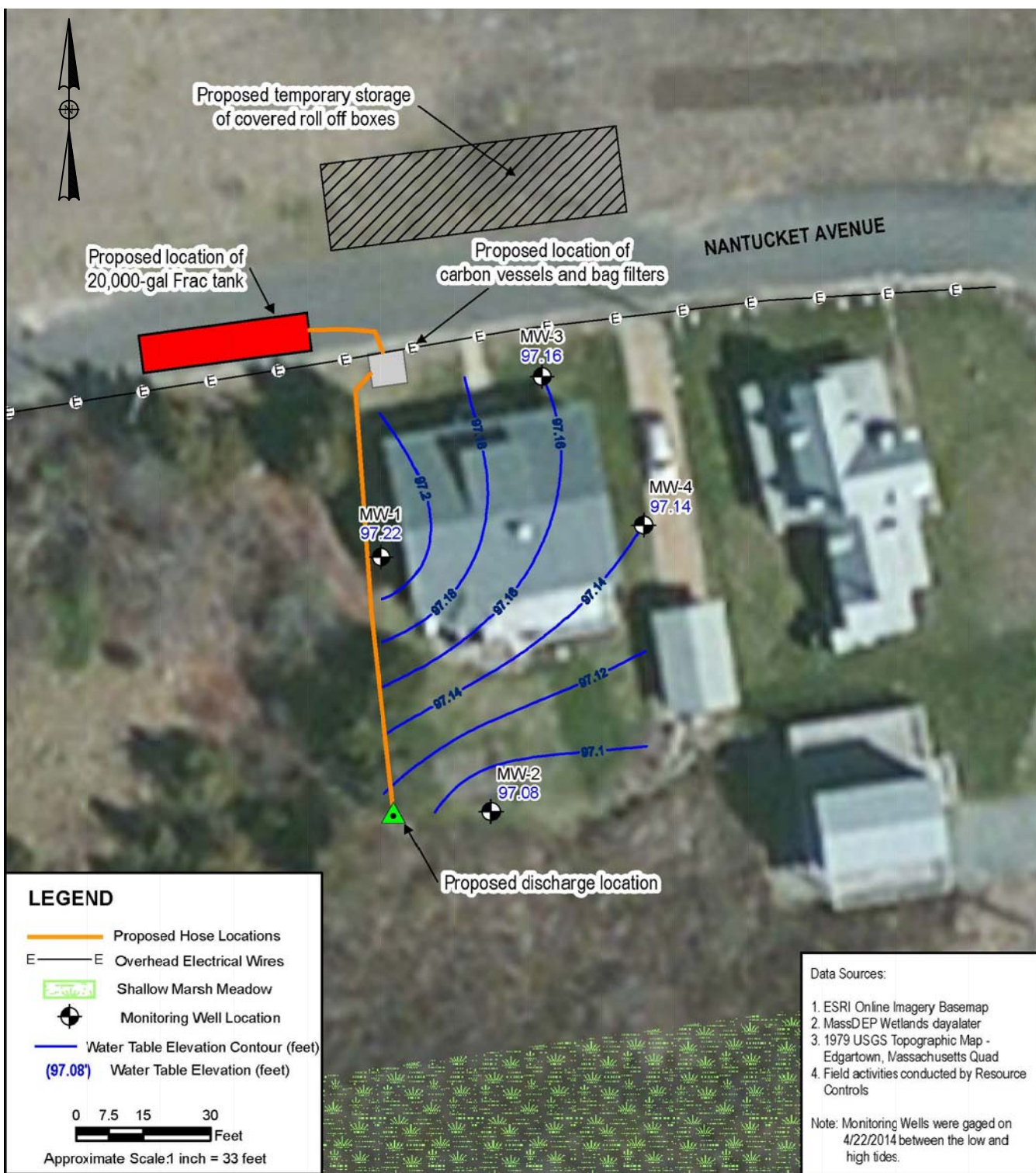
FIGURE

2

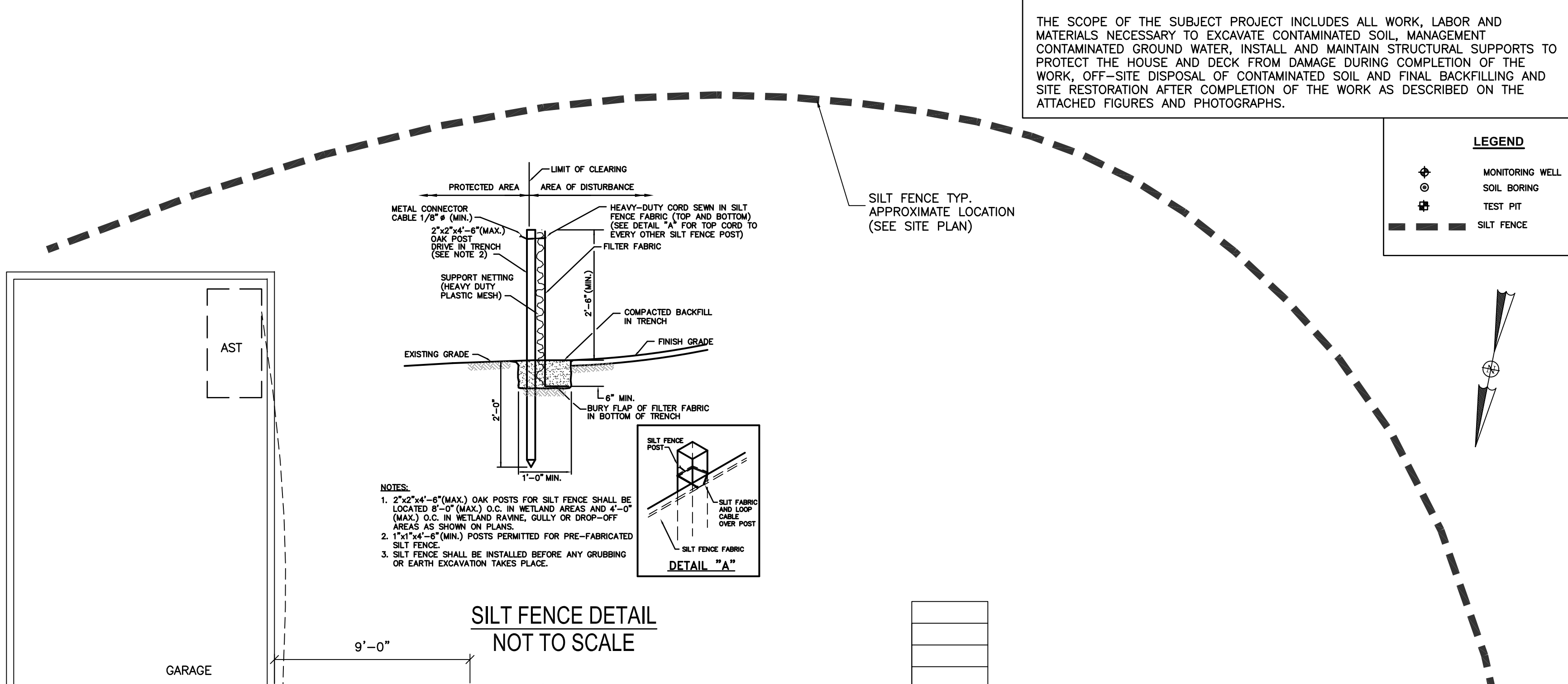




SITE PLAN



GROUNDWATER CONTOUR PLAN



SILT FENCE DETAIL
NOT TO SCALE



FRONT ELEVATION



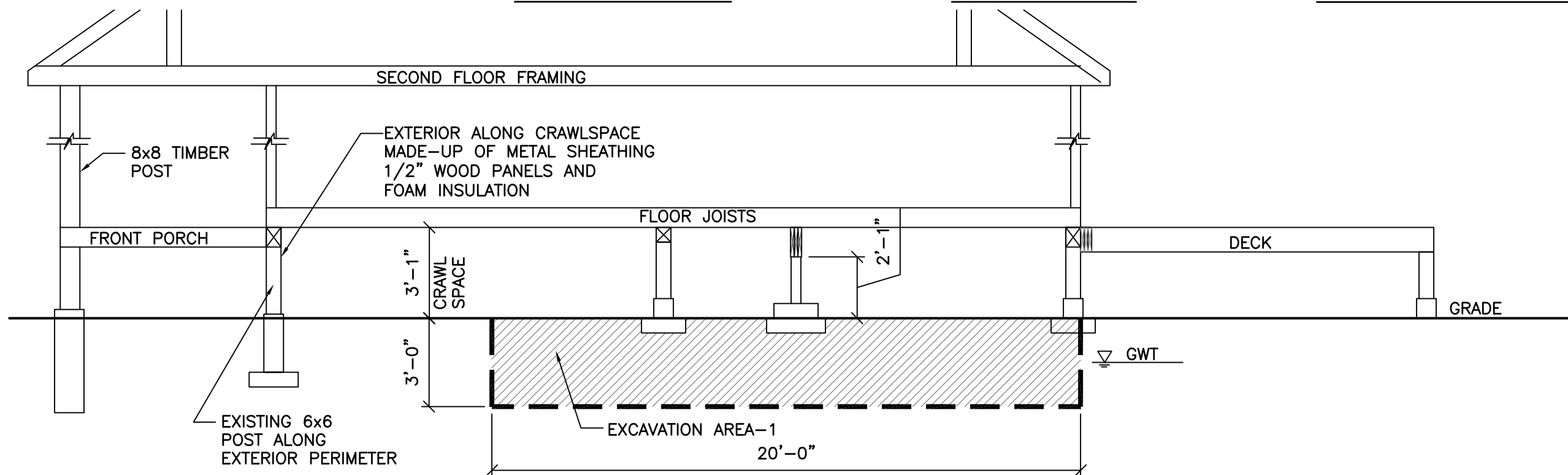
SIDE ELEVATION



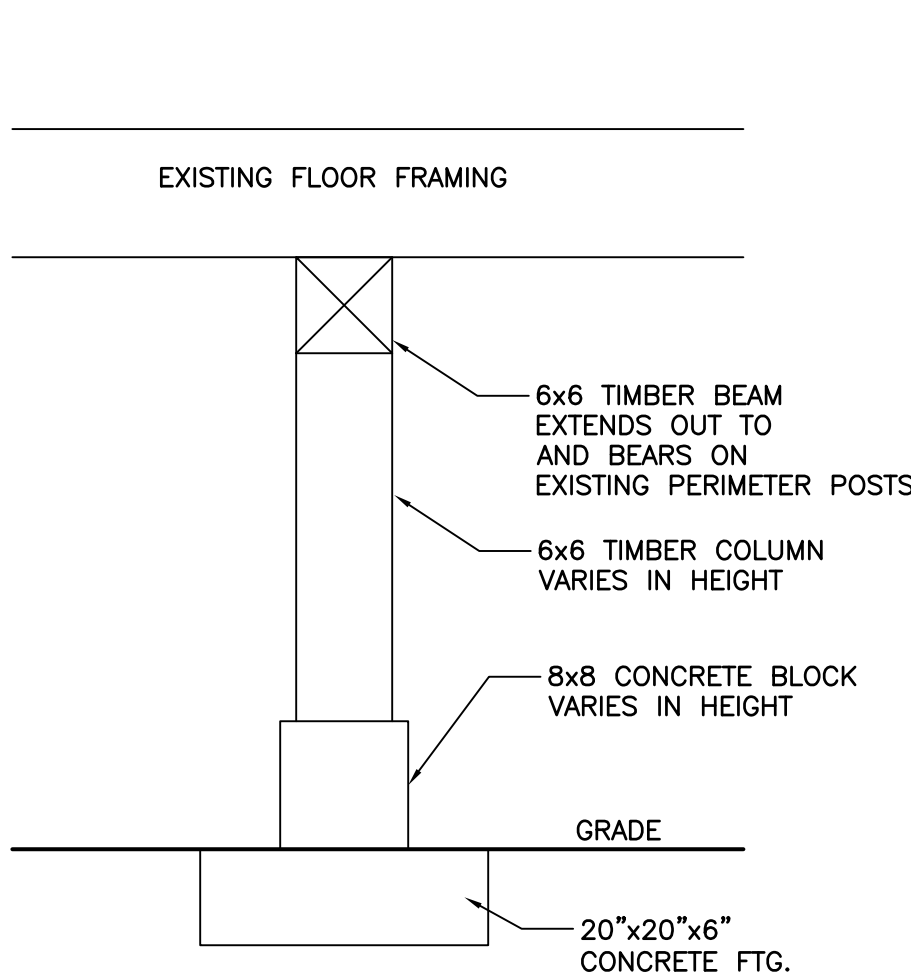
CRAWLSPACE



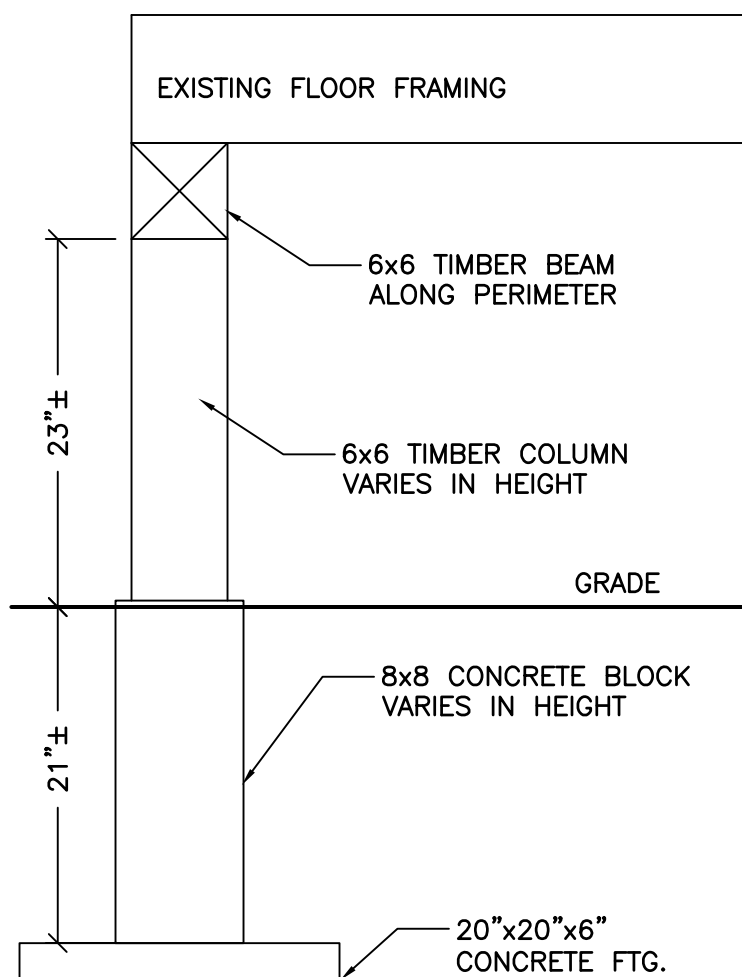
BUILT-UP CENTER BEAM



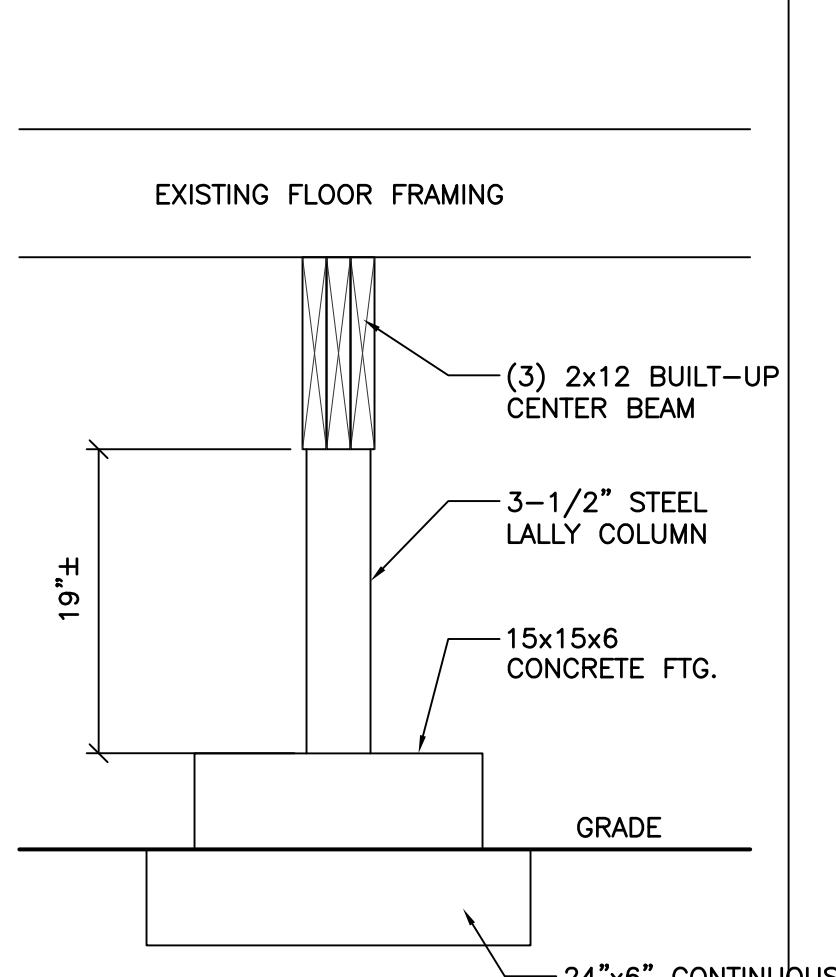
CRAWLSPACE SECTION
SCALE: 1/4"=1'-0"



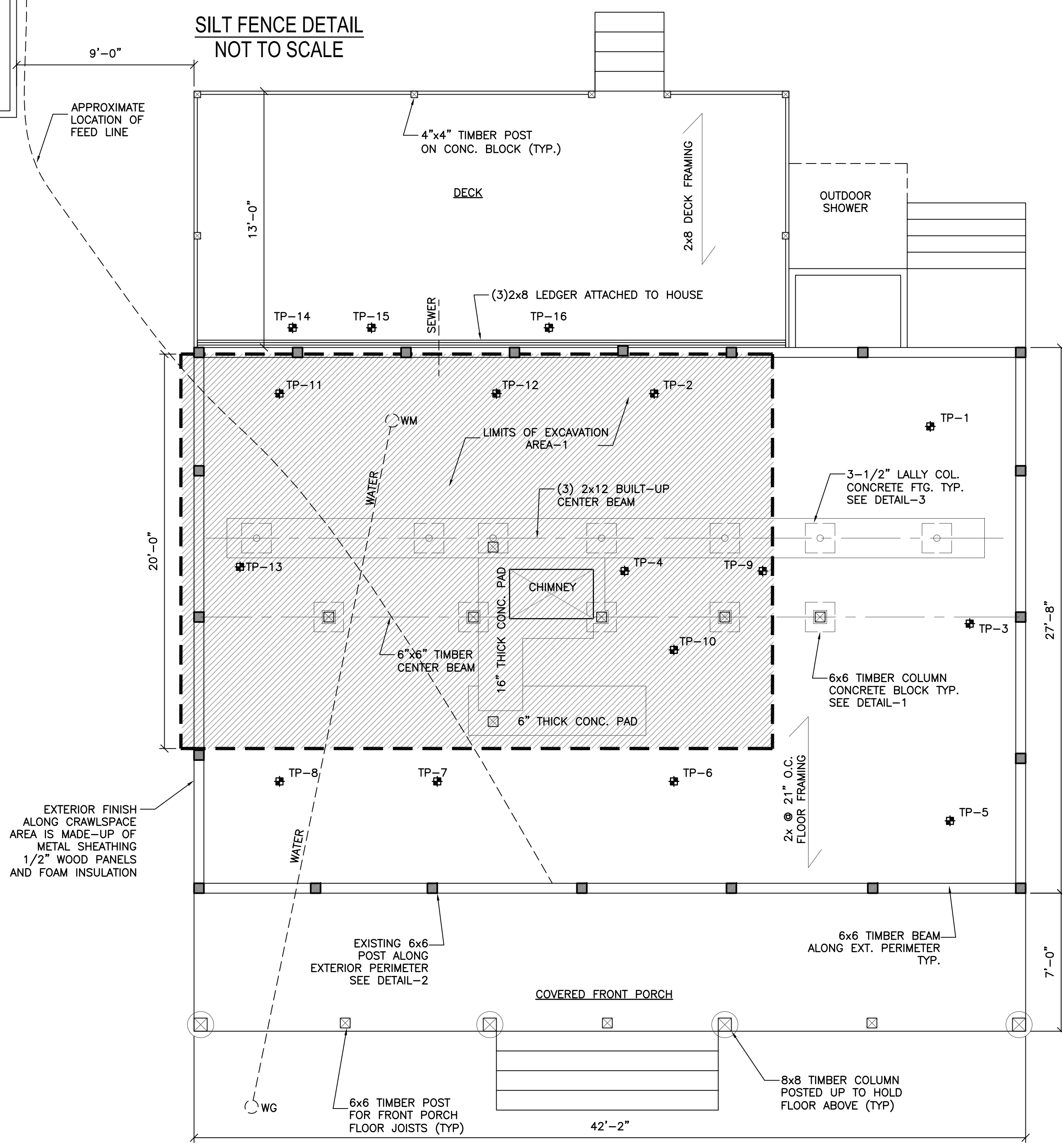
TIMBER INTERIOR COLUMN DETAIL-1
NOT TO SCALE



TIMBER PERIMETER COLUMN DETAIL-2
NOT TO SCALE



STEEL LALLY COLUMN DETAIL-3
NOT TO SCALE

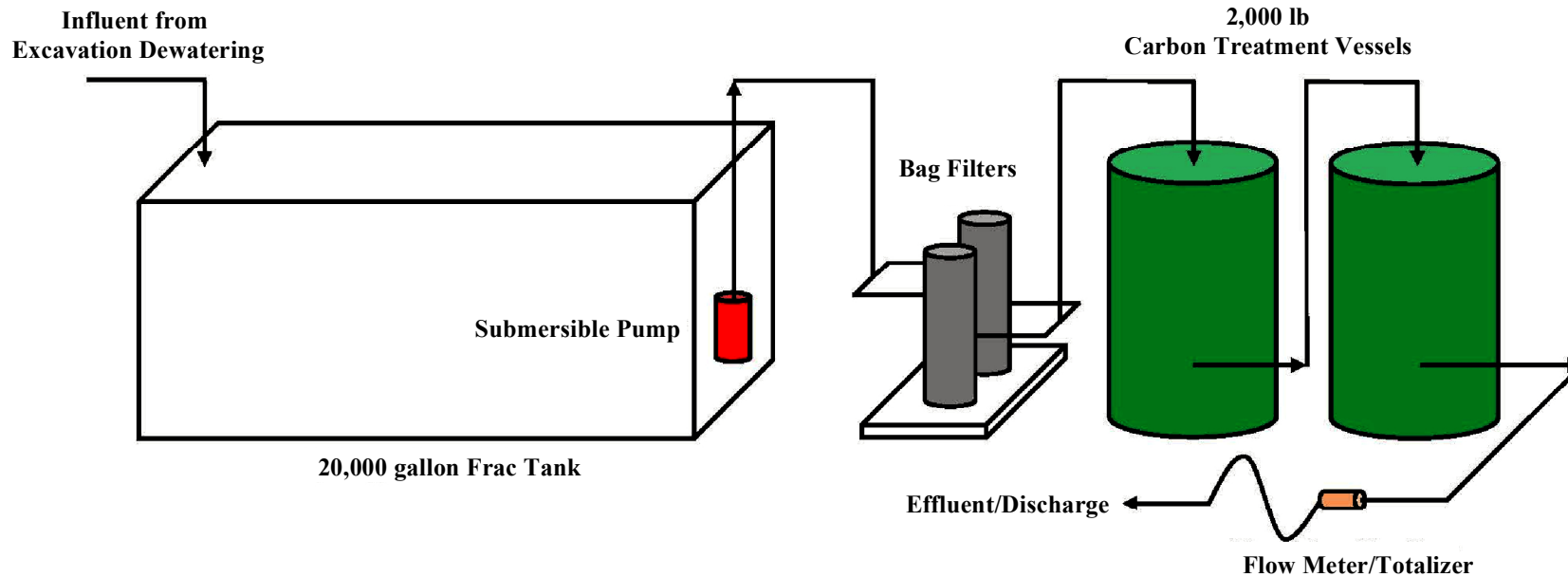


CRAWLSPACE PLAN
SCALE: 1/4"=1'-0"

THE SCOPE OF THE SUBJECT PROJECT INCLUDES ALL WORK, LABOR AND MATERIALS NECESSARY TO EXCAVATE CONTAMINATED SOIL, MANAGEMENT CONTAMINATED GROUND WATER, INSTALL AND MAINTAIN STRUCTURAL SUPPORTS TO PROTECT THE HOUSE AND DECK FROM DAMAGE DURING COMPLETION OF THE WORK, OFF-SITE DISPOSAL OF CONTAMINATED SOIL AND FINAL BACKFILLING AND SITE RESTORATION AFTER COMPLETION OF THE WORK AS DESCRIBED ON THE ATTACHED FIGURES AND PHOTOGRAPHS.

LEGEND

- MONITORING WELL
- SOIL BORING
- TEST PIT
- SILT FENCE



- Notes:
- 1.) Figure is not to scale.
 - 2.) The water treatment system is rated for 50 gallons per minute.
 - 3.) All discharge water shall be routed to the treatment system.

NOT TO SCALE

PREPARED BY:



DRAWING DESCRIPTION:

PROPOSED SYSTEM LAYOUT

CLIENT:

Regan Residence

LOCATION:

**22 NANTUCKET AVENUE
OAK BLUFFS, MASSACHUSETTS**

DESIGNED BY:
BPC

CHECKED BY:
CCP

APPROVED BY:
RCA

DRAWING DATE:
05/20/2014

SHEET NUMBER:
1 of 1

PROJECT NUMBER:
7244

DRAWING NAME:
SYSTEM LAYOUT

FIGURE 4

ATTACHMENT C

Laboratory Analytical Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-58567-1

Client Project/Site: Oak Bluffs

Revision: 1

For:

Resource Control Associates, Inc.

474 Broadway

Pawtucket, Rhode Island 02860

Attn: Ms. Danielle Eastman-Getsinger



Authorized for release by:

5/22/2014 3:11:17 PM

Steve Hartmann, Service Center Manager

(413)572-4000

steve.hartmann@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary	21
Sample Summary	22
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Definitions/Glossary

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
X	Surrogate is outside control limits
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Job ID: 480-58567-1

Laboratory: TestAmerica Buffalo

Narrative

Revision 1: This report was revised to include the reporting of Naphthalene by MAVPH which was inadvertently left off the original report. This final report replaces the final report issued 5/1/14.

Receipt

The samples were received on 4/24/2014 at 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3° C.

GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA

MA-EPH: Per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol; however they do achieve method 1 GW2/GW3 standards.

No other analytical or quality issues were noted, except for those described in the Definitions/Glossary page.

Organic Prep

Method(s) 3510C: The following sample formed emulsions during the extraction procedure: MW-2 (480-58567-2). The emulsions were broken up using centrifuge.

No other analytical or quality issues were noted.

MassDEP Analytical Protocol Certification Form					
Laboratory Name: TestAmerica Buffalo		Project #: 480-58567			
Project Location: Oak Bluffs		RTN:			
This form provides certifications for the data set for the following Laboratory Sample ID Number(s): 480-58567 [1-4]					
Matrices: ☒ Groundwater/Surface Water ☐ Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other:					
CAM Protocols (check all that apply below):					
8260 VOC CAM II A ☐	7470/7471 Hg CAM III B ☐	Mass DEP VPH CAM IV A ☒	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	Mass DEP APH CAM IX A ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	Mass DEP EPH CAM IV B ☒	8151 Herbicides CAM V C ☐	8330 Explosives CAM VIII A ☐	TO-15 VOC CAM IX B ☐
6010 Metals CAM III A ☐	6020 Metals CAM III D ☐	8082 PCB CAM V A ☐	9012 / 9014/ 4500CN Total Cyanide/PAC CAM VI A ☐	6860 Perchlorate CAM VIII B ☐	
Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status					
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.				☒ Yes ☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?				☒ Yes ☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?				☒ Yes ☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?				☒ Yes ☐ No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?				☒ Yes ☐ No ☐ Yes ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?				☒ Yes ☐ No
Responses to Questions G, H and I below are required for "Presumptive Certainty" status					
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?				☐ Yes ☒ No ¹
<i>Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350</i>					
H	Were all QC performance standards specified in the CAM protocol(s) achieved?				☒ Yes ☐ No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?				☒ Yes ☐ No ¹
¹ All negative responses must be addressed in an attached laboratory narrative.					
<i>I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.</i>					
Signature:		Position: <u>Technical Director, TestAmerica Westfield</u>			
Printed Name: <u>Richard Emerich</u>		Date: <u>5/1/14 10:51</u>			
This form has been electronically signed and approved.					

Detection Summary

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Client Sample ID: MW-1

Lab Sample ID: 480-58567-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.56	J B	1.0	0.25	ug/L	1		MAVPH	Total/NA

Client Sample ID: MW-2

Lab Sample ID: 480-58567-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.56	J B	1.0	0.25	ug/L	1		MAVPH	Total/NA

Client Sample ID: MW-3

Lab Sample ID: 480-58567-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.55	J B	1.0	0.25	ug/L	1		MAVPH	Total/NA
C11-C22 Aromatics	13	J B	48	9.5	ug/L	1		MA-EPH	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 480-58567-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.58	J B	1.0	0.25	ug/L	1		MAVPH	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Client Sample ID: MW-1

Date Collected: 04/22/14 16:20

Date Received: 04/24/14 01:00

Lab Sample ID: 480-58567-1

Matrix: Water

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	ND		5.0	1.5	ug/L			04/26/14 17:29	1
C9-C12 Aliphatics (adjusted)	ND		5.0	1.5	ug/L			04/26/14 17:29	1

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.25	ug/L			04/24/14 14:37	1
C5-C8 Aliphatics	ND		5.0	1.5	ug/L			04/24/14 14:37	1
C9-C10 Aromatics	ND		5.0	0.50	ug/L			04/24/14 14:37	1
C9-C12 Aliphatics	ND		5.0	1.5	ug/L			04/24/14 14:37	1
Ethylbenzene	ND		1.0	0.25	ug/L			04/24/14 14:37	1
Methyl tert-butyl ether	0.56	J B	1.0	0.25	ug/L			04/24/14 14:37	1
m-Xylene & p-Xylene	ND		2.0	0.50	ug/L			04/24/14 14:37	1
o-Xylene	ND		1.0	0.25	ug/L			04/24/14 14:37	1
Toluene	ND		1.0	0.25	ug/L			04/24/14 14:37	1
Naphthalene	ND		1.0	0.25	ug/L			04/24/14 14:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	104		73 - 144		04/24/14 14:37	1
2,5-Dibromotoluene (pid)	105		81 - 132		04/24/14 14:37	1

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Acenaphthene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Acenaphthylene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Anthracene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Benzo[a]anthracene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Benzo[a]pyrene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Benzo[b]fluoranthene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Benzo[g,h,i]perylene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Benzo[k]fluoranthene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Chrysene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Dibenz(a,h)anthracene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Fluoranthene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Fluorene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Indeno[1,2,3-cd]pyrene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Naphthalene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Phenanthrene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
Pyrene	ND	*	9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:18	1
C11-C22 Aromatics	ND		48	9.6	ug/L		04/25/14 08:08	04/30/14 14:18	1
C19-C36 Aliphatics	ND		48	9.6	ug/L		04/25/14 08:08	04/30/14 14:18	1
C9-C18 Aliphatics	ND		48	9.6	ug/L		04/25/14 08:08	04/30/14 14:18	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	ND		50	50	ug/L			04/28/14 15:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	35	X	40 - 140	04/25/14 08:08	04/30/14 14:18	1
2-Bromonaphthalene	78		40 - 140	04/25/14 08:08	04/30/14 14:18	1
2-Fluorobiphenyl	79		40 - 140	04/25/14 08:08	04/30/14 14:18	1
o-Terphenyl	67		40 - 140	04/25/14 08:08	04/30/14 14:18	1

TestAmerica Buffalo

Client Sample Results

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Client Sample ID: MW-2

Lab Sample ID: 480-58567-2

Date Collected: 04/22/14 16:45

Matrix: Water

Date Received: 04/24/14 01:00

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	ND		5.0	1.5	ug/L			04/26/14 17:29	1
C9-C12 Aliphatics (adjusted)	ND		5.0	1.5	ug/L			04/26/14 17:29	1

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.25	ug/L			04/24/14 15:15	1
C5-C8 Aliphatics	ND		5.0	1.5	ug/L			04/24/14 15:15	1
C9-C10 Aromatics	ND		5.0	0.50	ug/L			04/24/14 15:15	1
C9-C12 Aliphatics	ND		5.0	1.5	ug/L			04/24/14 15:15	1
Ethylbenzene	ND		1.0	0.25	ug/L			04/24/14 15:15	1
Methyl tert-butyl ether	0.56	J B	1.0	0.25	ug/L			04/24/14 15:15	1
m-Xylene & p-Xylene	ND		2.0	0.50	ug/L			04/24/14 15:15	1
o-Xylene	ND		1.0	0.25	ug/L			04/24/14 15:15	1
Toluene	ND		1.0	0.25	ug/L			04/24/14 15:15	1
Naphthalene	ND		1.0	0.25	ug/L			04/24/14 15:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	107		73 - 144		04/24/14 15:15	1
2,5-Dibromotoluene (pid)	105		81 - 132		04/24/14 15:15	1

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Acenaphthene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Acenaphthylene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Anthracene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Benzo[a]anthracene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Benzo[a]pyrene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Benzo[b]fluoranthene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Benzo[g,h,i]perylene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Benzo[k]fluoranthene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Chrysene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Dibenz(a,h)anthracene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Fluoranthene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Fluorene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Indeno[1,2,3-cd]pyrene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Naphthalene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Phenanthrene	ND		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
Pyrene	ND *		9.6	1.9	ug/L		04/25/14 08:08	04/30/14 14:47	1
C11-C22 Aromatics	ND		48	9.6	ug/L		04/25/14 08:08	04/30/14 14:47	1
C19-C36 Aliphatics	ND		48	9.6	ug/L		04/25/14 08:08	04/30/14 14:47	1
C9-C18 Aliphatics	ND		48	9.6	ug/L		04/25/14 08:08	04/30/14 14:47	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	ND		50	50	ug/L			04/28/14 15:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	23	X	40 - 140	04/25/14 08:08	04/30/14 14:47	1
2-Bromonaphthalene	81		40 - 140	04/25/14 08:08	04/30/14 14:47	1
2-Fluorobiphenyl	82		40 - 140	04/25/14 08:08	04/30/14 14:47	1
o-Terphenyl	52		40 - 140	04/25/14 08:08	04/30/14 14:47	1

TestAmerica Buffalo

Client Sample Results

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Client Sample ID: MW-3

Lab Sample ID: 480-58567-3

Date Collected: 04/22/14 18:05

Matrix: Water

Date Received: 04/24/14 01:00

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	ND		5.0	1.5	ug/L			04/26/14 17:29	1
C9-C12 Aliphatics (adjusted)	ND		5.0	1.5	ug/L			04/26/14 17:29	1

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.25	ug/L			04/24/14 15:53	1
C5-C8 Aliphatics	ND		5.0	1.5	ug/L			04/24/14 15:53	1
C9-C10 Aromatics	ND		5.0	0.50	ug/L			04/24/14 15:53	1
C9-C12 Aliphatics	ND		5.0	1.5	ug/L			04/24/14 15:53	1
Ethylbenzene	ND		1.0	0.25	ug/L			04/24/14 15:53	1
Methyl tert-butyl ether	0.55	J B	1.0	0.25	ug/L			04/24/14 15:53	1
m-Xylene & p-Xylene	ND		2.0	0.50	ug/L			04/24/14 15:53	1
o-Xylene	ND		1.0	0.25	ug/L			04/24/14 15:53	1
Toluene	ND		1.0	0.25	ug/L			04/24/14 15:53	1
Naphthalene	ND		1.0	0.25	ug/L			04/24/14 15:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	105		73 - 144		04/24/14 15:53	1
2,5-Dibromotoluene (pid)	104		81 - 132		04/24/14 15:53	1

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Acenaphthene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Acenaphthylene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Anthracene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Benzo[a]anthracene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Benzo[a]pyrene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Benzo[b]fluoranthene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Benzo[g,h,i]perylene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Benzo[k]fluoranthene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Chrysene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Dibenz(a,h)anthracene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Fluoranthene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Fluorene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Indeno[1,2,3-cd]pyrene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Naphthalene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Phenanthrene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
Pyrene	ND *		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:17	1
C11-C22 Aromatics	13	J B	48	9.5	ug/L		04/25/14 08:08	04/30/14 15:17	1
C19-C36 Aliphatics	ND		48	9.5	ug/L		04/25/14 08:08	04/30/14 15:17	1
C9-C18 Aliphatics	ND		48	9.5	ug/L		04/25/14 08:08	04/30/14 15:17	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	ND		50	50	ug/L			04/28/14 15:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	37	X	40 - 140	04/25/14 08:08	04/30/14 15:17	1
2-Bromonaphthalene	83		40 - 140	04/25/14 08:08	04/30/14 15:17	1
2-Fluorobiphenyl	86		40 - 140	04/25/14 08:08	04/30/14 15:17	1
o-Terphenyl	70		40 - 140	04/25/14 08:08	04/30/14 15:17	1

TestAmerica Buffalo

Client Sample Results

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Client Sample ID: MW-4

Lab Sample ID: 480-58567-4

Date Collected: 04/22/14 18:30

Matrix: Water

Date Received: 04/24/14 01:00

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	ND		5.0	1.5	ug/L			04/26/14 17:29	1
C9-C12 Aliphatics (adjusted)	ND		5.0	1.5	ug/L			04/26/14 17:29	1

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.25	ug/L			04/24/14 16:32	1
C5-C8 Aliphatics	ND		5.0	1.5	ug/L			04/24/14 16:32	1
C9-C10 Aromatics	ND		5.0	0.50	ug/L			04/24/14 16:32	1
C9-C12 Aliphatics	ND		5.0	1.5	ug/L			04/24/14 16:32	1
Ethylbenzene	ND		1.0	0.25	ug/L			04/24/14 16:32	1
Methyl tert-butyl ether	0.58	J B	1.0	0.25	ug/L			04/24/14 16:32	1
m-Xylene & p-Xylene	ND		2.0	0.50	ug/L			04/24/14 16:32	1
o-Xylene	ND		1.0	0.25	ug/L			04/24/14 16:32	1
Toluene	ND		1.0	0.25	ug/L			04/24/14 16:32	1
Naphthalene	ND		1.0	0.25	ug/L			04/24/14 16:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	103		73 - 144		04/24/14 16:32	1
2,5-Dibromotoluene (pid)	103		81 - 132		04/24/14 16:32	1

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Acenaphthene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Acenaphthylene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Anthracene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Benzo[a]anthracene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Benzo[a]pyrene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Benzo[b]fluoranthene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Benzo[g,h,i]perylene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Benzo[k]fluoranthene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Chrysene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Dibenz(a,h)anthracene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Fluoranthene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Fluorene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Indeno[1,2,3-cd]pyrene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Naphthalene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Phenanthrene	ND		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
Pyrene	ND *		9.5	1.9	ug/L		04/25/14 08:08	04/30/14 15:47	1
C11-C22 Aromatics	ND		48	9.5	ug/L		04/25/14 08:08	04/30/14 15:47	1
C19-C36 Aliphatics	ND		48	9.5	ug/L		04/25/14 08:08	04/30/14 15:47	1
C9-C18 Aliphatics	ND		48	9.5	ug/L		04/25/14 08:08	04/30/14 15:47	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	ND		50	50	ug/L			04/28/14 15:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	33	X	40 - 140	04/25/14 08:08	04/30/14 15:47	1
2-Bromonaphthalene	85		40 - 140	04/25/14 08:08	04/30/14 15:47	1
2-Fluorobiphenyl	86		40 - 140	04/25/14 08:08	04/30/14 15:47	1
o-Terphenyl	66		40 - 140	04/25/14 08:08	04/30/14 15:47	1

TestAmerica Buffalo

Surrogate Summary

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		25DBT2 (73-144)	25DBT1 (81-132)
480-58567-1	MW-1	104	105
480-58567-2	MW-2	107	105
480-58567-3	MW-3	105	104
480-58567-4	MW-4	103	103
LCS 480-178012/9	Lab Control Sample	109	107
LCSD 480-178012/10	Lab Control Sample Dup	107	106
MB 480-178012/8	Method Blank	109	107
Surrogate Legend			
25DBT = 2,5-Dibromotoluene (fid)			

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		1COD2 (40-140)	2BN1 (40-140)	FBP1 (40-140)	OTPH1 (40-140)
480-58567-1	MW-1	35 X	78	79	67
480-58567-2	MW-2	23 X	81	82	52
480-58567-3	MW-3	37 X	83	86	70
480-58567-4	MW-4	33 X	85	86	66
LCS 480-178184/2-B	Lab Control Sample	78	81	83	75
LCSD 480-178184/3-B	Lab Control Sample Dup	77	76	77	71
MB 480-178184/1-B	Method Blank	78	82	84	74
Surrogate Legend					
1COD = 1-Chlorooctadecane					
2BN = 2-Bromonaphthalene					
FBP = 2-Fluorobiphenyl					
OTPH = o-Terphenyl					

QC Sample Results

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 480-178012/8

Matrix: Water

Analysis Batch: 178012

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.25	ug/L			04/24/14 12:41	1
C5-C8 Aliphatics	ND		5.0	1.5	ug/L			04/24/14 12:41	1
C9-C10 Aromatics	ND		5.0	0.50	ug/L			04/24/14 12:41	1
C9-C12 Aliphatics	ND		5.0	1.5	ug/L			04/24/14 12:41	1
Ethylbenzene	ND		1.0	0.25	ug/L			04/24/14 12:41	1
Methyl tert-butyl ether	0.557	J	1.0	0.25	ug/L			04/24/14 12:41	1
m-Xylene & p-Xylene	ND		2.0	0.50	ug/L			04/24/14 12:41	1
o-Xylene	ND		1.0	0.25	ug/L			04/24/14 12:41	1
Toluene	ND		1.0	0.25	ug/L			04/24/14 12:41	1
Naphthalene	ND		1.0	0.25	ug/L			04/24/14 12:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	109		73 - 144		04/24/14 12:41	1
2,5-Dibromotoluene (pid)	107		81 - 132		04/24/14 12:41	1

Lab Sample ID: LCS 480-178012/9

Matrix: Water

Analysis Batch: 178012

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	4.75		ug/L		95	70 - 130
C5-C8 Aliphatics	15.0	14.7		ug/L		98	70 - 130
C9-C10 Aromatics	5.00	4.72	J	ug/L		94	70 - 130
C9-C12 Aliphatics	15.0	14.3		ug/L		95	70 - 130
Ethylbenzene	5.00	4.73		ug/L		95	70 - 130
Methyl tert-butyl ether	5.00	4.44		ug/L		89	70 - 130
m-Xylene & p-Xylene	10.0	9.50		ug/L		95	70 - 130
o-Xylene	5.00	4.75		ug/L		95	70 - 130
Toluene	5.00	4.71		ug/L		94	70 - 130
Naphthalene	5.00	4.83		ug/L		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,5-Dibromotoluene (fid)	109		73 - 144
2,5-Dibromotoluene (pid)	107		81 - 132

Lab Sample ID: LCSD 480-178012/10

Matrix: Water

Analysis Batch: 178012

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	5.00	4.88		ug/L		98	70 - 130	3	25
C5-C8 Aliphatics	15.0	15.0		ug/L		100	70 - 130	2	25
C9-C10 Aromatics	5.00	4.86	J	ug/L		97	70 - 130	3	25
C9-C12 Aliphatics	15.0	14.6		ug/L		97	70 - 130	2	25
Ethylbenzene	5.00	4.84		ug/L		97	70 - 130	2	25
Methyl tert-butyl ether	5.00	4.55		ug/L		91	70 - 130	2	25
m-Xylene & p-Xylene	10.0	9.72		ug/L		97	70 - 130	2	25

TestAmerica Buffalo

QC Sample Results

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCSD 480-178012/10

Matrix: Water

Analysis Batch: 178012

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
o-Xylene	5.00	4.83		ug/L		97	70 - 130	2	25
Toluene	5.00	4.82		ug/L		96	70 - 130	2	25
Naphthalene	5.00	4.90		ug/L		98	70 - 130	1	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,5-Dibromotoluene (fid)	107		73 - 144
2,5-Dibromotoluene (pid)	106		81 - 132

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 480-178184/1-B

Matrix: Water

Analysis Batch: 178846

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 178184

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Acenaphthene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Acenaphthylene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Anthracene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Benzo[a]anthracene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Benzo[a]pyrene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Benzo[b]fluoranthene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Benzo[g,h,i]perylene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Benzo[k]fluoranthene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Chrysene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Dibenz(a,h)anthracene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Fluoranthene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Fluorene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Indeno[1,2,3-cd]pyrene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Naphthalene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Phenanthrene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
Pyrene	ND		10	2.0	ug/L		04/25/14 08:08	04/30/14 12:49	1
C11-C22 Aromatics	ND		50	10	ug/L		04/25/14 08:08	04/30/14 12:49	1
C19-C36 Aliphatics	ND		50	10	ug/L		04/25/14 08:08	04/30/14 12:49	1
C9-C18 Aliphatics	ND		50	10	ug/L		04/25/14 08:08	04/30/14 12:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	78		40 - 140	04/25/14 08:08	04/30/14 12:49	1
2-Bromonaphthalene	82		40 - 140	04/25/14 08:08	04/30/14 12:49	1
2-Fluorobiphenyl	84		40 - 140	04/25/14 08:08	04/30/14 12:49	1
o-Terphenyl	74		40 - 140	04/25/14 08:08	04/30/14 12:49	1

TestAmerica Buffalo

QC Sample Results

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCS 480-178184/2-B

Matrix: Water

Analysis Batch: 178846

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 178184

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	50.0	31.0		ug/L		62	40 - 140
Acenaphthene	50.0	33.8		ug/L		68	40 - 140
Acenaphthylene	50.0	33.4		ug/L		67	40 - 140
Anthracene	50.0	40.4		ug/L		81	40 - 140
Benzo[a]anthracene	50.0	42.0		ug/L		84	40 - 140
Benzo[a]pyrene	50.0	41.3		ug/L		83	40 - 140
Benzo[b]fluoranthene	50.0	41.2		ug/L		82	40 - 140
Benzo[g,h,i]perylene	50.0	47.2		ug/L		94	40 - 140
Benzo[k]fluoranthene	50.0	41.9		ug/L		84	40 - 140
Chrysene	50.0	42.6		ug/L		85	40 - 140
Dibenz(a,h)anthracene	50.0	45.1		ug/L		90	40 - 140
Fluoranthene	50.0	42.2		ug/L		84	40 - 140
Fluorene	50.0	37.1		ug/L		74	40 - 140
Indeno[1,2,3-cd]pyrene	50.0	45.5		ug/L		91	40 - 140
Naphthalene	50.0	28.6		ug/L		57	40 - 140
Phenanthrene	50.0	41.0		ug/L		82	40 - 140
Pyrene	50.0	43.1		ug/L		86	40 - 140
C11-C22 Aromatics	850	646		ug/L		76	40 - 140
C19-C36 Aliphatics	400	371		ug/L		93	40 - 140
C9-C18 Aliphatics	300	203		ug/L		68	40 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctadecane	78		40 - 140
2-Bromonaphthalene	81		40 - 140
2-Fluorobiphenyl	83		40 - 140
o-Terphenyl	75		40 - 140

Lab Sample ID: LCSD 480-178184/3-B

Matrix: Water

Analysis Batch: 178846

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 178184

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Methylnaphthalene	50.0	30.6		ug/L		61	40 - 140	1	25
Acenaphthene	50.0	32.5		ug/L		65	40 - 140	4	25
Acenaphthylene	50.0	32.1		ug/L		64	40 - 140	4	25
Anthracene	50.0	37.9		ug/L		76	40 - 140	7	25
Benzo[a]anthracene	50.0	41.0		ug/L		82	40 - 140	3	25
Benzo[a]pyrene	50.0	39.6		ug/L		79	40 - 140	4	25
Benzo[b]fluoranthene	50.0	40.8		ug/L		82	40 - 140	1	25
Benzo[g,h,i]perylene	50.0	45.5		ug/L		91	40 - 140	4	25
Benzo[k]fluoranthene	50.0	40.7		ug/L		81	40 - 140	3	25
Chrysene	50.0	41.7		ug/L		83	40 - 140	2	25
Dibenz(a,h)anthracene	50.0	43.5		ug/L		87	40 - 140	4	25
Fluoranthene	50.0	40.6		ug/L		81	40 - 140	4	25
Fluorene	50.0	35.3		ug/L		71	40 - 140	5	25
Indeno[1,2,3-cd]pyrene	50.0	44.4		ug/L		89	40 - 140	3	25
Naphthalene	50.0	28.2		ug/L		56	40 - 140	2	25
Phenanthrene	50.0	39.4		ug/L		79	40 - 140	4	25

TestAmerica Buffalo

QC Sample Results

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCSD 480-178184/3-B

Matrix: Water

Analysis Batch: 178846

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 178184

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pyrene	50.0	41.5		ug/L		83	40 - 140	4	25
C11-C22 Aromatics	850	623		ug/L		73	40 - 140	4	25
C19-C36 Aliphatics	400	357		ug/L		89	40 - 140	4	25
C9-C18 Aliphatics	300	190		ug/L		63	40 - 140	7	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctadecane	77		40 - 140
2-Bromonaphthalene	76		40 - 140
2-Fluorobiphenyl	77		40 - 140
o-Terphenyl	71		40 - 140

QC Association Summary

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

GC VOA

Analysis Batch: 176296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-58567-1	MW-1	Total/NA	Water	MA VPH	
480-58567-2	MW-2	Total/NA	Water	MA VPH	
480-58567-3	MW-3	Total/NA	Water	MA VPH	
480-58567-4	MW-4	Total/NA	Water	MA VPH	

Analysis Batch: 178012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-58567-1	MW-1	Total/NA	Water	MAVPH	
480-58567-2	MW-2	Total/NA	Water	MAVPH	
480-58567-3	MW-3	Total/NA	Water	MAVPH	
480-58567-4	MW-4	Total/NA	Water	MAVPH	
LCS 480-178012/9	Lab Control Sample	Total/NA	Water	MAVPH	
LCSD 480-178012/10	Lab Control Sample Dup	Total/NA	Water	MAVPH	
MB 480-178012/8	Method Blank	Total/NA	Water	MAVPH	

GC Semi VOA

Prep Batch: 178184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-58567-1	MW-1	Total/NA	Water	3510C	
480-58567-2	MW-2	Total/NA	Water	3510C	
480-58567-3	MW-3	Total/NA	Water	3510C	
480-58567-4	MW-4	Total/NA	Water	3510C	
LCS 480-178184/2-B	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-178184/3-B	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-178184/1-B	Method Blank	Total/NA	Water	3510C	

Fraction Batch: 178716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-58567-1	MW-1	Total/NA	Water	MA EPH Frac	178184
480-58567-2	MW-2	Total/NA	Water	MA EPH Frac	178184
480-58567-3	MW-3	Total/NA	Water	MA EPH Frac	178184
480-58567-4	MW-4	Total/NA	Water	MA EPH Frac	178184
LCS 480-178184/2-B	Lab Control Sample	Total/NA	Water	MA EPH Frac	178184
LCSD 480-178184/3-B	Lab Control Sample Dup	Total/NA	Water	MA EPH Frac	178184
MB 480-178184/1-B	Method Blank	Total/NA	Water	MA EPH Frac	178184

Analysis Batch: 178738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-58567-1	MW-1	Total/NA	Water	MA-EPH	
480-58567-2	MW-2	Total/NA	Water	MA-EPH	
480-58567-3	MW-3	Total/NA	Water	MA-EPH	
480-58567-4	MW-4	Total/NA	Water	MA-EPH	

Analysis Batch: 178846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-58567-1	MW-1	Total/NA	Water	MA-EPH	178716
480-58567-2	MW-2	Total/NA	Water	MA-EPH	178716
480-58567-3	MW-3	Total/NA	Water	MA-EPH	178716
480-58567-4	MW-4	Total/NA	Water	MA-EPH	178716

TestAmerica Buffalo

QC Association Summary

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

GC Semi VOA (Continued)

Analysis Batch: 178846 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-178184/2-B	Lab Control Sample	Total/NA	Water	MA-EPH	178716
LCSD 480-178184/3-B	Lab Control Sample Dup	Total/NA	Water	MA-EPH	178716
MB 480-178184/1-B	Method Blank	Total/NA	Water	MA-EPH	178716

Lab Chronicle

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Client Sample ID: MW-1

Date Collected: 04/22/14 16:20

Date Received: 04/24/14 01:00

Lab Sample ID: 480-58567-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	MA VPH		1	176296	04/26/14 17:29	GSR	TAL BUF
Total/NA	Analysis	MAVPH		1	178012	04/24/14 14:37	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	178738	04/28/14 15:36	GSR	TAL BUF
Total/NA	Prep	3510C			178184	04/25/14 08:08	MCZ	TAL BUF
Total/NA	Fraction	MA EPH Frac			178716	04/28/14 14:30	JRL	TAL BUF
Total/NA	Analysis	MA-EPH		1	178846	04/30/14 14:18	DGB	TAL BUF

Client Sample ID: MW-2

Date Collected: 04/22/14 16:45

Date Received: 04/24/14 01:00

Lab Sample ID: 480-58567-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	MA VPH		1	176296	04/26/14 17:29	GSR	TAL BUF
Total/NA	Analysis	MAVPH		1	178012	04/24/14 15:15	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	178738	04/28/14 15:36	GSR	TAL BUF
Total/NA	Prep	3510C			178184	04/25/14 08:08	MCZ	TAL BUF
Total/NA	Fraction	MA EPH Frac			178716	04/28/14 14:30	JRL	TAL BUF
Total/NA	Analysis	MA-EPH		1	178846	04/30/14 14:47	DGB	TAL BUF

Client Sample ID: MW-3

Date Collected: 04/22/14 18:05

Date Received: 04/24/14 01:00

Lab Sample ID: 480-58567-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	MA VPH		1	176296	04/26/14 17:29	GSR	TAL BUF
Total/NA	Analysis	MAVPH		1	178012	04/24/14 15:53	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	178738	04/28/14 15:36	GSR	TAL BUF
Total/NA	Prep	3510C			178184	04/25/14 08:08	MCZ	TAL BUF
Total/NA	Fraction	MA EPH Frac			178716	04/28/14 14:30	JRL	TAL BUF
Total/NA	Analysis	MA-EPH		1	178846	04/30/14 15:17	DGB	TAL BUF

Client Sample ID: MW-4

Date Collected: 04/22/14 18:30

Date Received: 04/24/14 01:00

Lab Sample ID: 480-58567-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	MA VPH		1	176296	04/26/14 17:29	GSR	TAL BUF
Total/NA	Analysis	MAVPH		1	178012	04/24/14 16:32	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	178738	04/28/14 15:36	GSR	TAL BUF
Total/NA	Prep	3510C			178184	04/25/14 08:08	MCZ	TAL BUF
Total/NA	Fraction	MA EPH Frac			178716	04/28/14 14:30	JRL	TAL BUF
Total/NA	Analysis	MA-EPH		1	178846	04/30/14 15:47	DGB	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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Certification Summary

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Rhode Island	State Program	1	LAO00328	12-30-14

Method Summary

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Method	Method Description	Protocol	Laboratory
MA VPH	Massachusetts - Volatile Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
MAVPH	Massachusetts - Volatile Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
MA-EPH	Massachusetts - Extractable Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF

Protocol References:

MA DEP = Massachusetts Department Of Environmental Protection

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Resource Control Associates, Inc.
Project/Site: Oak Bluffs

TestAmerica Job ID: 480-58567-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-58567-1	MW-1	Water	04/22/14 16:20	04/24/14 01:00
480-58567-2	MW-2	Water	04/22/14 16:45	04/24/14 01:00
480-58567-3	MW-3	Water	04/22/14 18:05	04/24/14 01:00
480-58567-4	MW-4	Water	04/22/14 18:30	04/24/14 01:00



TestAmerica Laboratories, Inc.

[illegible]

Login Sample Receipt Checklist

Client: Resource Control Associates, Inc.

Job Number: 480-58567-1

Login Number: 58567

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	