

September 22, 2016

Jennifer Cervenka, Esq.
Partridge Snow & Hahn
40 Westminster Street, Suite 1100
Providence, RI 02903
Sent Via Email: jrc@psh.com

RE: *Groundwater Summary Sampling Report*
Block Island Power Company (BIPCO)
New Shoreham, Rhode Island
SAGE Project No. S2671

Ms. Cervenka:

As requested, SAGE Environmental Inc. (SAGE) sampled nine (9) existing viable groundwater monitor wells at the subject property and submitted samples for volatile organic compound (VOC) analyses to a state-certified laboratory. The sampling was conducted based on the results of a Phase I Environmental Site Assessment (ESA), which identified several areas of environmental concern, including the DEM Building, the generator buildings and the underground fuel pipeline. The Phase I ESA also indicated that groundwater assessment has been performed at the subject property for at least the past 20 years due to former releases of petroleum and subsequent remedial efforts. The current sampling effort, including VOC analysis, was performed to assess residual contamination from these prior releases.

Active remedial efforts were allowed to cease in 2006 by the Rhode Island Department of Environmental Management (RIDEM), and the site has subsequently been in groundwater monitoring mode since. Four (4) groundwater monitor wells have been monitored on a quarterly basis since 2006. RIDEM will allow either a reduction in monitoring frequency and/or ceasing monitoring once a well has demonstrated four (4) consecutive quarters of compliance with all applicable standards.

The purpose of this most recent sampling effort was to provide an independent assessment of VOC concentrations in groundwater relative to their applicable RIDEM standards. SAGE sampled the four monitor wells that have been subject to quarterly monitoring (MW-A, MW-23, MW-20 and MW-9) as well as another five (5) that have been allowed to remain until site closure is permitted by RIDEM. **Table 1** is a summary of laboratory data associated with the nine (9) monitor wells sampled compared to RIDEM standards. SAGE also evaluated this data against the 10+ years of monitoring data associated with the four (4) monitor wells being evaluated quarterly. No statistically significant differentials were noted in a comparison of these historic results to those generated by SAGEs sampling efforts.

It is SAGE's opinion that groundwater monitoring will continue to be a requirement of RIDEM by BIPCO until monitored natural attenuation (MNA) reduces residual petroleum impacts to compliant levels.

Should you have any questions or require additional information, please do not hesitate to contact Rick Mandile.

Sincerely,
SAGE Environmental, Inc.

Daniel S. Boynes

Daniel Boynes
Project Manager

RM

Rick Mandile
Principal

DB/RM:am/car

Table 1
Groundwater Analytical Summary
Block Island Power Company
New Shoreham, Rhode Island

Sample / Date	Concentration									RIDEM Method 1 Objective
	MW-A	MW-23	MW-20	T-2	T-1	MW-13	MW-21	MW-7	MW-9	GA Groundwater
Analyte	9/13/2016	9/13/2016	9/13/2016	9/13/2016	9/13/2016	9/13/2016	9/13/2016	9/13/2016	9/13/2016	9/13/2016
Volatile Organic Compounds by 8260C (ug/l):										
Acetone	<5	<5	<5	28.4	<5	<5	<5	<5	<5	NE
tert-Butyl methyl ether	<1	1.3	<1	<1	<1	<1	<1	<1	<1	40
2-Butanone	<5	<5	<5	6.8	<5	<5	<5	<5	<5	NE
cis-1,2-Dichloroethene	5.4	<1	<1	<1	<1	<1	<1	<1	<1	70
Benzene	150^a	12^a	<1	86.2^a	120^a	<1	<1	<1	570^a	5
Ethylene Dibromide	<0.41 ^c	<0.41 ^c	<0.41 ^c	<0.41 ^c	<0.41 ^c	<0.41 ^c	<0.41 ^c	<0.41 ^c	<0.41 ^c	0.05
Toluene	2.5	<1	<1	2.1	5.1	<1	<1	<1	13	1000
Ethylbenzene	4.0	<1	<1	<1	<1	<1	<1	<1	110	700
Total Xylenes	4.5	<2	<2	2.6	<2	<2	<2	<2	143	10000
Isopropylbenzene	7.0	<1	<1	9.3	1.3	<1	<1	<1	59	NE
n-Propylbenzene	14	<1	<1	9.7	1.9	<1	<1	<1	99	NE
1,3,5-Trimethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	1.8	NE
1,2,4-Trimethylbenzene	1.3	<1	<1	57.5	<1	<1	<1	<1	1.0	NE
sec-Butylbenzene	2.1	1.4	<1	1.1	<1	<1	<1	<1	7.5	NE
n-Butylbenzene	2.2	<1	<1	1.1	<1	<1	<1	<1	11	NE
1,2-Dibromo-3-chloropropane	<0.37 ^c	<0.37 ^c	<0.37 ^c	<0.37 ^c	<0.37 ^c	<0.37 ^c	<0.37 ^c	<0.37 ^c	<0.37 ^c	0.2
Naphthalene	24	<1	<1	<1	<1	<1	<1	<1	160^a	100
Tert-amyl Methyl Ether	<1	3.4	<1	<1	<1	<1	<1	<1	<1	NE

Where necessary, the RIDEM objectives, in ppm, have been converted to ppb to match the laboratory reporting method.

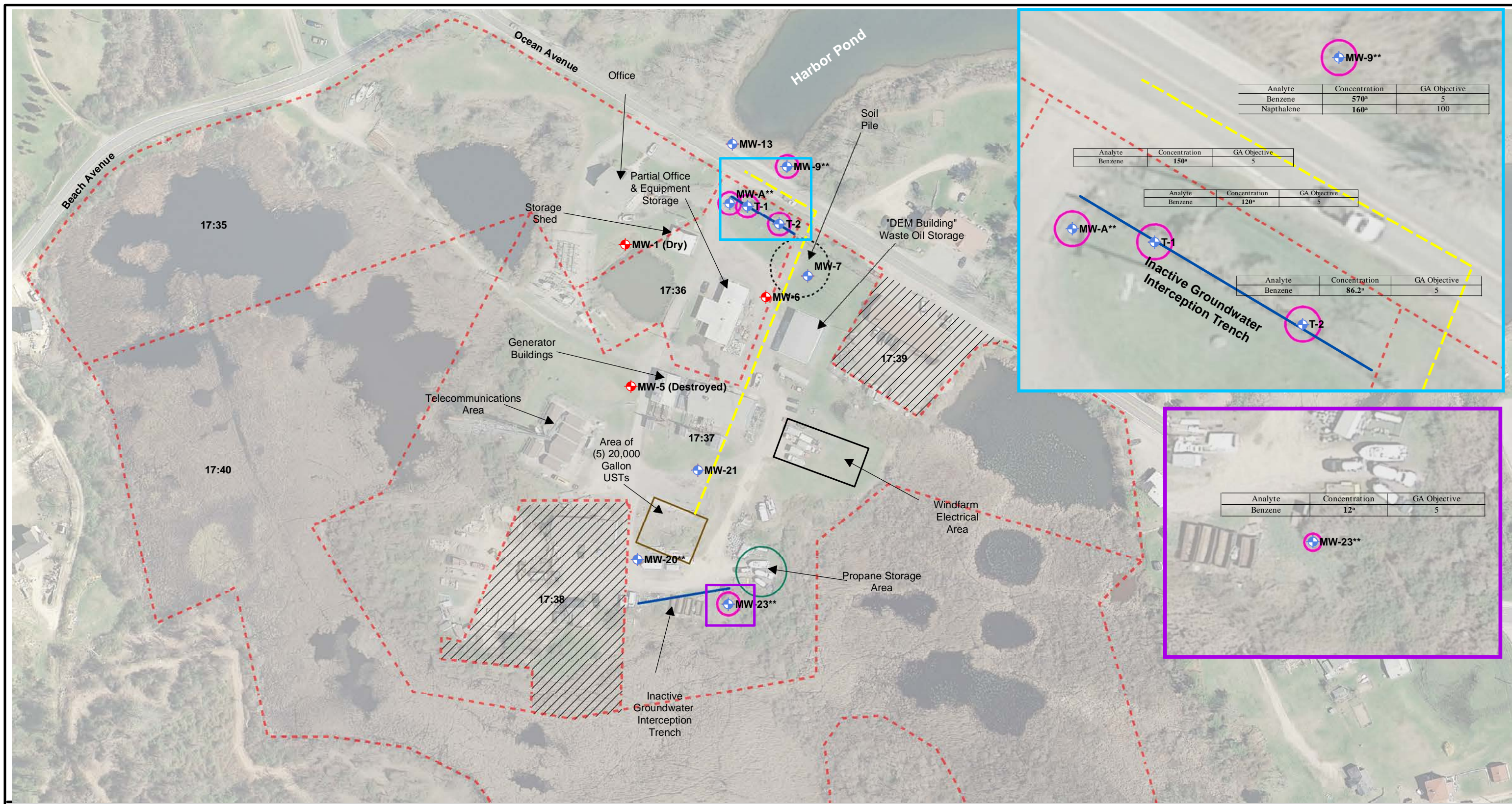
NE: No allowable limit is established for the substance

<x: Indicates analyte concentration not detected at or above specified laboratory quantitation limit (x)

Sample Results:

a: Analyte concentration in this sample exceeds RIDEM GA Groundwater Objectives

c: Although the analyte was not detected, the laboratory quantitation limit for this sample exceeds RIDEM GA Groundwater Objectives



Analyte	Concentration	GA Objective
Benzene	570*	5
Napthalene	160*	100

Analyte	Concentration	GA Objective
Benzene	150*	5

Analyte	Concentration	GA Objective
Benzene	120*	5

Analyte	Concentration	GA Objective
Benzene	86.2*	5

Analyte	Concentration	GA Objective
Benzene	12*	5

SAGE Environmental, Inc

Figure 1



★ Site Location

- Approximate Property Boundary
- Former Underground Fuel Line from Block Island Boat Basin
- ⊕ Wells Sampled with GA Exceedances
- ⊕ Wells Sampled
- ⊕ Wells Not Sampled
- /// Parcels Not Subject to Assessment

****NOTE: MW-A, MW-9, MW-20 & MW-23 sampled quarterly since 2006**

Site Sketch

Plat 17 / Lots 35, 36, 37 & 40
Block Island, Rhode Island

DATE:	9/21/16	JOB#:	S2671
CREATED BY:	ALM	FILENAME:	exteriorsitesketch.mxd