BENNETT ENVIRONMENTAL ASSOCIATES, INC.

LICENSED SITE PROFESSIONALS ◊ ENVIRONMENTAL SCIENTISTS ◊ GEOLOGISTS ◊ ENGINEERS

1573 Main Street - P.O. Box 1743, Brewster, MA 02631 ◊ 508-896-1706 ◊ Fax 508-896-5109 ◊ www.bennett-ea.com

BEA16-10918

September 22, 2016

FILE COPY

US Environmental Protection Agency
Dewater GP Processing
Industrial Permit Unit (EOP 06-4)
5 Post Office Square – Suite 100
Boston, MA 02109-3912

RE: Notice of Intent Narrative
Speca Residence
18 Port Way, West Dennis, MA

Dewater GP Processing Personnel,

This Notice of Intent (NOI) has been prepared on behalf of the applicant, Bruce Speca, in accordance with the National Pollutant Discharge Elimination System (NPDES) General Permits for Dewatering Activity Discharges [MAG07000] to permit long-term dewatering of groundwater from a foundation sump. The existing sump is located in the basement of the residential dwelling at 18 Port Way, West Dennis and consists of a ½ HP pump set to run for five (5) seconds every 15 minutes, discharging groundwater via a single existing pipe (<2"diameter) at the existing bulkhead to the adjacent waterway (Bass River).

In accordance with Section 4 and Appendix IV of the General Permit, the potential effects of the existing discharge was assessed. The USFWS Information, Planning and Conservation (IPaC) online system was used to develop a preliminary determination of federally listed species within the area of discharge. This assessment identified the Red Knot bird and the Northern long-eared Bat as threatened in the area, in the absence of any critical habitat. In review of site-specific conditions wherein the existing discharge is associated with a fully developed residential property, and based on a description of these conditions with USFWS personnel (Maria Tur), there would be "no affect" on the listed threatened species. As such, the applicant certifies eligibility under the General Permit in accordance with Criterion C. According to USFWS personnel, EPA concurrence is to be determined upon review of this NOI.

The screening process outlined under Appendix III National Historic Preservation Act Review was completed as a site-specific means of addressing potential historic property issues. Wherein the existing discharge was not previously permitted, it is considered a new facility. Regardless, the applicant certifies that there will be no subsurface land disturbance associated with the continuation of the dewatering activities and the existing discharge does not have the potential to cause effects on historic properties.

In accordance with Section 4.4.5 and Appendix VIII of the General Permit, representative effluent sampling was conducted on June 21 2016, and August 31, 2016. Laboratory analytical reported all required parameters within acceptable limits and no treatment is required nor provided (see attached). Furthermore, the existing discharge does not cause a violation of the water quality standards, does not cause objectionable discoloration, and does not include visible foam or floating suspended and/or settleable solids in concentration or combinations that would impair any use assigned to the receiving waters. Wherein the discharge is to a Class SA waterway, a copy of this Notice of Intent, along with the MassDEP Transmittal Form for Permit Application and a copy of the check for the State fee is being forwarded to the Department's Division of Watershed Management in Worcester, MA for approval.

In accordance with the current NPDES General Permit requirements, following approval of the application, effluent monitoring of total suspended solids (TSS) will be conducted on a weekly basis. Following four consecutive TSS samples that are in compliance with permit requirements, the permittee will reduce monitoring to once per month for the following six months. After six consecutive months of TSS reported below the detection limits of the analysis (non-detect), the applicant will request no monitoring for the duration of the permit term, as subject to EPA approval.

If any additional information is required in order to support this application, please do not hesitate to contact our office directly.

Very truly yours,
BENNETT ENVIRONMENTAL ASSOCIATES, INC.

Kara Risk

Kara Risk, RS
Permitting Coordinator

Encl Notice of Intent Application
Envirotech Laboratories, Inc., 06/28/16
Alpha Analytical, 06/29/16
Alpha Analytical, 09/07/16
USFWS List of Threatened and Endangered Species
Figure 1: Locus Map
Figure 2: Regional Groundwater Mapping
Figure 3: GIS Priority Resource Mapping

Cc: David C. Bennett, President (internal)
Bruce Speca, Applicant
Erin Burnham, Dennis Conservation Agent
MassDEP Division of Watershed Management (Worcester Office)
MassDEP Lockbox [Transmittal Form and Fee]

II. Suggested Notice of Intent (NOI) Format

1. General facility information. Please provide the following information about the facility.

a) Name of facility: Speca Residence (residential dwelling)	**Mailing Address for the Facility:** P.O. Box 1179 West Dennis, MA 02670	
b) Location Address of the Facility (if different from mailing address): 18 Port Way West Dennis, MA	**Facility Location** **longitude:** -70.178825 **latitude:** 41.655388	**Type of Business:** NA **Facility SIC codes:** NA

c) Name of facility owner: Bruce Speca **Owner's email:** brucespeca@comcast.net

Owner's Tel #: (508) 954-2184 **Owner's Fax #:** _____

Address of owner (if different from facility address)

Owner is (check one): 1. Federal____ **2. State**_____ **3. Private** ✓ **4. Other**_____ **(Describe)**_____

Legal name of Operator, if not owner: _____

Operator Contact Name: _____

Operator Tel Number: _____ **Fax Number:** _____

Operator's email: _____

Operator Address (if different from owner)

d) Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? ✓

e) Check Yes or No for the following:

1. **Has a prior NPDES permit been granted for the discharge? Yes** ____ **No** ✓ **If Yes, Permit Number:** _____
2. **Is the discharge a "new discharger" as defined by 40 CFR Section 122.2? Yes** ✓ **No**_____
3. **Is the facility covered by an individual NPDES permit? Yes**_____ **No** ✓ **If Yes, Permit Number** ____
4. **Is there a pending application on file with EPA for this discharge? Yes**_____ **No** ✓ **If Yes, date of submittal:**

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

a) Name of receiving water into which discharge will occur: Bass River to Nantucket Sound
State Water Quality Classification: SA Freshwater: _____ Marine Water: x

b) Describe the discharge activities for which the owner/applicant is seeking coverage:
1. Construction dewatering of groundwater intrusion and/or storm water accumulation.
✓ 2. Short-term or long-term dewatering of foundation sumps.
3. Other.

c) Number of outfalls 1

For each outfall:

d) Estimate the maximum daily and average monthly flow of the discharge (in gallons per day – GPD). Max Daily Flow 576 GPD
Average Monthly Flow 480 GPD

e.) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 7.33 Min pH 4.89

f.) Identify the source of the discharge (i.e. potable water, surface water, or groundwater). If groundwater, the facility shall submit effluent test results, as required in Section 4.4.5 of the General Permit.

g.) What treatment does the wastewater receive prior to discharge?

h.) Is the discharge continuous? Yes _____ No ✓ If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B) P
If (P), number of days or months per year of the discharge 365 days and the specific months of discharge January through December;
If (I), number of days/year there is a discharge _____
Is the discharge temporary? Yes _____ No ✓
If yes, approximate start date of dewatering _____ approximate end date of dewatering _____

i.) Latitude and longitude of each discharge within 100 feet (See http://www.epa.gov/tri/report/siting_tool): Outfall 1: long. -70.178825 lat. 41.655388; Outfall 2: long._____ lat._____; Outfall 3: long._____ lat._____.

j.) If the source of the discharge is potable water, please provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water and attach any calculation sheets used to support stream flow and dilution calculations_____ cfs
(See Appendix VII for equations and additional information)

MASSACHUSETTS FACILITIES: See Section 3.4 and Appendix 1 of the General Permit for more information on Areas of Critical Environmental Concern (ACEC):

k.) Does the discharge occur in an ACEC? Yes _____ No ✓
If yes, provide the name of the ACEC: _____

3. Contaminant Information

a) Are any pH neutralization and/or dechlorination chemicals used in the discharge? If so, include the chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC_{50} in percent for aquatic organism(s)).

b) Please report any known remediation activities or water-quality issues in the vicinity of the discharge.

4. Determination of Endangered Species Act Eligibility: Provide documentation of ESA eligibility as required at Part 3.4 and Appendix IV. In addition, respond to the following questions.

a) Which of the three eligibility criteria listed in Appendix IV, Criterion (A, B, or C) have you met? C
b) Please attach documentation with your NOI supporting your response. Please see Appendix IV for acceptable documentation

5. Documentation of National Historic Preservation Act requirements: Please respond to the following questions:

a) See Screening Process in Appendix III and respond to questions regarding your site and any historic properties listed or eligible for listing on the National Register of Historic Places. Question 1: Yes ✓ No ____ ; Question 2: No ✓ Yes _____

b) Have any State or Tribal historic preservation officers been consulted in this determination? Yes _____ or No ✓ If yes, attach the results of the consultation(s).

c) Which of the three National Historic Preservation Act eligibility criterion listed in Appendix III, Criterion (A, B, or C) have you met? A

d) Is the project located on property of religious or cultural significance to an Indian Tribe? Yes _____ or No ✓ If yes, provide that name of the Indian Tribe associated with the property. _____

6. 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

7. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the dewatering system; (2) the discharge consists solely of dewatering and authorized pH adjustment and/or dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product or finished product; (4) if the discharge of dewatering subsequently mixes with other permitted wastewater (i.e. stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for dewatering discharge; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) 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 Name: Speca Residence

Operator signature: Bruce Speca

Print Full Name and Title: Bruce Speca, Homeowner

Date: 9/20/16

Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.

Enter your transmittal number → X272236 (Transmittal Number)

Your unique Transmittal Number can be accessed online: http://mass.gov/dep/service/online/trasmfrm.shtml

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. **Copy 2** must accompany your fee payment. **Copy 3** should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP
P.O. Box 4062
Boston, MA
02211

*** Note:**
For BWSC Permits, enter the LSP.

A. Permit Information

1. Permit Code: 7 or 8 character code from permit instructions
2. Name of Permit Category
3. Type of Project or Activity

B. Applicant Information – Firm or Individual

1. Name of Firm - Or, if party needing this approval is an individual enter name below:

2. **Last Name** of Individual	3. **First Name** of Individual	4. MI
Speca	Bruce	

5. Street Address: P.O. Box 1179

6. City/Town	7. State	8. Zip Code	9. Telephone #	10. Ext. #
West Dennis	MA	02670	508-954-2184	

11. Contact Person

12. e-mail address (optional): brucespeca@comcast.net

C. Facility, Site or Individual Requiring Approval

1. Name of Facility, Site Or Individual: Speca Residence
2. Street Address: 18 Port Way

3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #
West Dennis	MA	02670	508-954-2184	

8. DEP Facility Number (if Known)	9. Federal I.D. Number (if Known)	10. BWSC Tracking # (if Known)

D. Application Prepared by (if different from Section B)*

1. Name of Firm Or Individual: Bennett Environmental Associates, Inc.
2. Address: P.O. Box 1743

3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #
Brewster	MA	02631	5089-896-1706	

8. Contact Person: Kara Risk

9. LSP Number (BWSC Permits only)

E. Permit - Project Coordination

1. Is this project subject to MEPA review? ☐ yes ☒ no
   If yes, enter the project's EOEA file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

Special Provisions:

1. ☐ **Fee** Exempt (city, town or municipal housing authority)(state agency if fee is $100 or less). *There are no fee exemptions for BWSC permits, regardless of applicant status.*
2. ☐ Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
3. ☐ Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
4. ☒ Homeowner (according to 310 CMR 4.02).

Check Number	Dollar Amount	Date
429	470.00	9/21/16

BRUCE R. SPECA
GAIL E. SPECA
18 PORT WAY
PO BOX 1179
W. DENNIS, MA 02670

5-7515/110

429

DATE 9-21-16

PAY TO THE ORDER OF Commonwealth of Mass. $ 470.00

Four hundred Seventy and 00 1/00 DOLLARS

Security Features Included. Details on Back.

Santander®

PREMIER BANKING

Santander Bank, N. A.

MEMO

⑆011075150⑆ 702049859431⑈ 0429

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063
8 Jan Sebastian Drive Unit 12
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Client Name	Bennett Environmental Assoc., Inc.	**Location**	18 Port Way
Address	1573 Main St.		W Dennis, MA
	PO Box 1743		
	Brewster, MA	**Sample Date**	06/22/16
Collected By	D Bennett	**Sample Time**	15:00
Sample Type	Sump Discharge	**Date Received**	06/22/16
Lab Order Number	DW-161964	**Well Specs**	

Location Source: A	Date Collected: 06/22/16	Time Collected: 15:00	Comments			
Analysis Requested	**Units**	**Recommended Limits**	**Analysis Result**	**Method**	**Date Analyzed**	**Analyzed By**
pH	pH units	6.5-8.5	6.11	SM 4500-H-B	6/22/2016	LL
Specific Conductance¤	umhos/cm	500	216	EPA 120.1	6/22/2016	LL
Nitrite-N	mg/L	1.00	0.106	EPA 300.0	6/22/2016	LL
Nitrate-N	mg/L	10.0	6.22	EPA 300.0	6/23/2016	LL
Sodium	mg/L	20.0	20.5	EPA 200.7	6/23/2016	MC
Total Iron¤	mg/L	0.3	0.98	EPA 200.7	6/23/2016	MC
Manganese¤	mg/L	0.05	0.014	EPA 200.7	6/23/2016	MC
Potassium¤	mg/L	20.0	9.9	EPA 200.7	6/23/2016	MC
Calcium	mg/L	N/A	18.2	EPA 200.7	6/23/2016	MC
Magnesium¤	mg/L	N/A	4.3	EPA 200.7	6/23/2016	MC
Total Hardness¤	mg/L	50-200	63.2	EPA 200.7	6/23/2016	MC
Alkalinity	mg/L	200	10.7	SM 2320B	6/22/2016	LL
Sulfate	mg/L	250	36.1	EPA 300.0	6/22/2016	LL
Chloride¤	mg/L	250	34.6	EPA 300.0	6/22/2016	LL
Turbidity	NTU	5.0	2.5	SM 2130B	6/22/2016	LL
Color¤	APC units	15	<5.0	SM 2120B	6/22/2016	LL
Odor¤	TON	3.0	ND	SM 2150B	6/22/2016	LL
Free CO2	mg/L	50	18.6	Calculation	6/27/2016	LL

Comments:

Sodium level is not a health hazard.
Iron level is not a health hazard, but may cause taste and staining problems.
pH is below recommended limit and may have corrosive characteristics.
Nitrate level should be monitored periodically.

Date 6/28/2016

Ronald J. Sauri
Laboratory Director

BRL = Below Reportable Limits **See Attached*

¤Certification is not available for this analyte for non-potable water samples..

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063
449 RTE. 130
SANDWICH, MA 02563
508 (888-6460) 1-800-339-6460
FAX (508) 888-6446

LAB USE ONLY: DW161964

WATER ANALYSIS REQUISITION:

DATE: 6/21/16 DATE RECEIVED: 6/22/16 SAMPLE NO.: _____ TIME: 15:00 NO. COPIES: _____

NEXT DAY SERVICE BY 5:00 PM ($20.00 Surcharge) PICK UP: _____ MAIL: _____

NAME: Benett Environmental WATER LOCATION: Speca | 18 Post Way
PHONE: (508) 896-1706 West Dennis, MA
FAX: (508) 896-5109
MAILING ADDRESS: P.O. Box 1749 Sump Discharge
Brewster, MA 02631
SAMPLED BY: Dave Barrett
PAYMENT/AMT. RECEIVED: _____ WELL SPECS.: NA - Basement Sump
BILL TO/AMT.: _____

ANALYSIS REQUESTED:

Lab use only: 6/22 1645 MC

	HETEROTROPHIC PLATE COUNT		COPPER
	COLIFORM BACTERIA		LEAD
X	pH		ARSENIC
X	CONDUCTANCE		SILICA
X	NITRATE-N		ZINC
X	NITRITE-N		TDS
X	SODIUM		TANNINS
X	IRON		SULFIDE
X	MANGANESE		SILVER
X	POTASSIUM		RCRA 8
X	CALCIUM		IOC's
X	MAGNESIUM		SEC. CONT.
X	HARDNESS		FLUORIDE
X	ALKALINITY	OTHER ANALYSIS REQUESTED:	
X	SULFATE		FECAL COLIFORM
X	CHLORIDE		METHOD:
X	COLOR		VOLATILE ORGANICS
	TURBIDITY		METHOD:
X	FREE CO2		METALS
	AMMONIA-N		METHOD:
X	ODOR		

WATER SAMPLE TYPE:

	FHA-HUD/VA
	NEW WELL
	EXISTING WELL
	TOWN WATER
	IRRIGATION
	FILTER/CONDITIONER
X	MISCELLANEOUS
	NEW MAIN
	TITLE 5

POOL ____ SPA ____ CHLORINE ____

	COLIFORM BACTERIA
	PSEUDOMONAS
	HETEROTROPHIC PLATE COUNT

DEP SAMPLES
PWS#: _____
SAMPLE SITE: _____ (ie. Sink)
SAMPLE LOCATION: _____ (ie. Kitchen/Well)

INSTRUCTIONS:

BACTERIA-Obtain sterile sample bottle. Remove strainer/aerator from faucet. Turn on cold water. Allow it to run (5) five minutes. Fill container. Do not touch the inside of the bottle or the cap with anything.
POTABLE WATER SAMPLE- Follow instructions for bacteria. Sample size approximately 500 mls.
LEAD- Call lab for instructions.
VOLATILE ORGANICS/METALS- Call lab for instructions

ALPHA ANALYTICAL

ANALYTICAL REPORT

Lab Number:	L1619190
Client:	Bennett Environmental Associates 1573 Main Street Brewster, MA 02631
ATTN:	David Bennett
Phone:	(508) 896-1706
Project Name:	SPECA
Project Number:	BEA16-10918
Report Date:	06/29/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Serial_No:06291616:47

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1619190-01	BASEMENT SUMP DISCHARGE	WATER	18 PORT WAY-DENNIS	06/21/16 13:30	06/22/16

Project Name:	SPECA	**Lab Number:**	L1619190
Project Number:	BEA16-10918	**Report Date:**	06/29/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

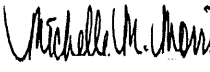
Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 06/29/16

ORGANICS

VOLATILES

Project Name: SPECA
Project Number: BEA16-10918
Lab Number: L1619190
Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1619190-01
Client ID: BASEMENT SUMP DISCHARGE
Sample Location: 18 PORT WAY-DENNIS
Matrix: Water
Analytical Method: 5,624
Analytical Date: 06/23/16 14:12
Analyst: GT

Date Collected: 06/21/16 13:30
Date Received: 06/22/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Chloroform	ND		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	3.5	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
2-Chloroethylvinyl ether	ND		ug/l	10	--	1
Tetrachloroethene	ND		ug/l	1.5	--	1
Chlorobenzene	ND		ug/l	3.5	--	1
Trichlorofluoromethane	ND		ug/l	5.0	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	--	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	--	1
Bromoform	ND		ug/l	1.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	5.0	--	1
Bromomethane	ND		ug/l	5.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	--	1
cis-1,2-Dichloroethene[1]	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1

Project Name: SPECA
Project Number: BEA16-10918
Lab Number: L1619190
Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1619190-01
Client ID: BASEMENT SUMP DISCHARGE
Sample Location: 18 PORT WAY-DENNIS
Date Collected: 06/21/16 13:30
Date Received: 06/22/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene[1]	ND		ug/l	2.0	--	1
o-xylene[1]	ND		ug/l	1.0	--	1
Xylenes, Total[1]	ND		ug/l	1.0	--	1
Styrene[1]	ND		ug/l	1.0	--	1
Acetone[1]	ND		ug/l	10	--	1
Carbon disulfide[1]	ND		ug/l	5.0	--	1
2-Butanone[1]	ND		ug/l	10	--	1
Vinyl acetate[1]	ND		ug/l	10	--	1
4-Methyl-2-pentanone[1]	ND		ug/l	10	--	1
2-Hexanone[1]	ND		ug/l	10	--	1
Acrolein[1]	ND		ug/l	8.0	--	1
Acrylonitrile[1]	ND		ug/l	10	--	1
Dibromomethane[1]	ND		ug/l	1.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	98		80-120
Fluorobenzene	100		80-120
4-Bromofluorobenzene	98		80-120

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,624
Analytical Date: 06/23/16 11:06
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG906970-10					
Methylene chloride	ND		ug/l	5.0	--
1,1-Dichloroethane	ND		ug/l	1.5	--
Chloroform	ND		ug/l	1.5	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	3.5	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.5	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	1.5	--
Chlorobenzene	ND		ug/l	3.5	--
Trichlorofluoromethane	ND		ug/l	5.0	--
1,2-Dichloroethane	ND		ug/l	1.5	--
1,1,1-Trichloroethane	ND		ug/l	2.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	1.5	--
cis-1,3-Dichloropropene	ND		ug/l	1.5	--
Bromoform	ND		ug/l	1.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	5.0	--
Bromomethane	ND		ug/l	5.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.5	--
cis-1,2-Dichloroethene[1]	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,624
Analytical Date: 06/23/16 11:06
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG906970-10					
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--
1,4-Dichlorobenzene	ND		ug/l	5.0	--
p/m-Xylene[1]	ND		ug/l	2.0	--
o-xylene[1]	ND		ug/l	1.0	--
Xylenes, Total[1]	ND		ug/l	1.0	--
Styrene[1]	ND		ug/l	1.0	--
Acetone[1]	ND		ug/l	10	--
Carbon disulfide[1]	ND		ug/l	5.0	--
2-Butanone[1]	ND		ug/l	10	--
Vinyl acetate[1]	ND		ug/l	10	--
4-Methyl-2-pentanone[1]	ND		ug/l	10	--
2-Hexanone[1]	ND		ug/l	10	--
Acrolein[1]	ND		ug/l	8.0	--
Acrylonitrile[1]	ND		ug/l	10	--
Methyl tert butyl ether[1]	ND		ug/l	10	--
Dibromomethane[1]	ND		ug/l	1.0	--
1,4-Dioxane[1]	ND		ug/l	2000	--
Tert-Butyl Alcohol[1]	ND		ug/l	100	--
Tertiary-Amyl Methyl Ether[1]	ND		ug/l	20	--
Dichlorodifluoromethane[1]	ND		ug/l	1.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	99		80-120
Fluorobenzene	101		80-120
4-Bromofluorobenzene	97		80-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG906970-9								
Methylene chloride	110		-		70-111	-		30
1,1-Dichloroethane	105		-		78-116	-		30
Chloroform	110		-		86-111	-		30
Carbon tetrachloride	105		-		60-112	-		30
1,2-Dichloropropane	110		-		83-113	-		30
Dibromochloromethane	100		-		58-129	-		30
1,1,2-Trichloroethane	100		-		80-118	-		30
2-Chloroethylvinyl ether	95		-		69-124	-		30
Tetrachloroethene	100		-		80-126	-		30
Chlorobenzene	95		-		80-126	-		30
Trichlorofluoromethane	100		-		83-128	-		30
1,2-Dichloroethane	110		-		82-110	-		30
1,1,1-Trichloroethane	105		-		72-109	-		30
Bromodichloromethane	95		-		71-120	-		30
trans-1,3-Dichloropropene	100		-		73-106	-		30
cis-1,3-Dichloropropene	100		-		78-111	-		30
Bromoform	90		-		45-131	-		30
1,1,2,2-Tetrachloroethane	90		-		81-122	-		30
Benzene	110		-		84-116	-		30
Toluene	100		-		83-121	-		30
Ethylbenzene	95		-		84-123	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918
Lab Number: L1619190
Report Date: 06/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG906970-9								
Chloromethane	100		-		70-144	-		30
Bromomethane	85		-		63-141	-		30
Vinyl chloride	100		-		56-118	-		30
Chloroethane	105		-		74-130	-		30
1,1-Dichloroethene	95		-		77-116	-		30
trans-1,2-Dichloroethene	100		-		81-121	-		30
cis-1,2-Dichloroethene[1]	105		-		85-110	-		30
Trichloroethene	110		-		84-118	-		30
1,2-Dichlorobenzene	80		-		78-128	-		30
1,3-Dichlorobenzene	90		-		77-125	-		30
1,4-Dichlorobenzene	90		-		77-125	-		30
p/m-Xylene[1]	100		-		81-121	-		30
o-Xylene[1]	105		-		81-124	-		30
Styrene[1]	100		-		84-133	-		30
Acetone[1]	98		-		40-160	-		30
Carbon disulfide[1]	95		-		54-134	-		30
2-Butanone[1]	102		-		57-116	-		30
Vinyl acetate[1]	95		-		40-160	-		30
4-Methyl-2-pentanone[1]	96		-		79-125	-		30
2-Hexanone[1]	98		-		78-120	-		30
Acrolein[1]	80		-		40-160	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918
Lab Number: L1619190
Report Date: 06/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG906970-9								
Acrylonitrile[1]	105		-		66-123	-		30
Methyl tert butyl ether[1]	100		-		57-126	-		30
Dibromomethane[1]	110		-		65-126	-		30
1,4-Dioxane[1]	90		-		74-121	-		30
tert-Butyl Alcohol[1]	120	Q	-		52-114	-		30
Tertiary-Amyl Methyl Ether[1]	100		-		66-111	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	99				80-120
Fluorobenzene	102				80-120
4-Bromofluorobenzene	99				80-120

Matrix Spike Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG906970-6 QC Sample: L1619097-01 Client ID: MS Sample												
Methylene chloride	ND	20	24	120	Q	-	-		70-111	-		30
1,1-Dichloroethane	ND	20	24	120	Q	-	-		78-116	-		30
Chloroform	ND	20	25	125	Q	-	-		86-111	-		30
Carbon tetrachloride	ND	20	24	120	Q	-	-		60-112	-		30
1,2-Dichloropropane	ND	20	25	125	Q	-	-		83-113	-		30
Dibromochloromethane	ND	20	22	110		-	-		58-129	-		30
1,1,2-Trichloroethane	ND	20	23	115		-	-		80-118	-		30
2-Chloroethylvinyl ether	ND	20	22	110		-	-		69-124	-		30
Tetrachloroethene	ND	20	22	110		-	-		80-126	-		30
Chlorobenzene	ND	20	21	105		-	-		80-126	-		30
Trichlorofluoromethane	ND	20	23	115		-	-		83-128	-		30
1,2-Dichloroethane	ND	20	24	120	Q	-	-		82-110	-		30
1,1,1-Trichloroethane	ND	20	24	120	Q	-	-		72-109	-		30
Bromodichloromethane	ND	20	22	110		-	-		71-120	-		30
trans-1,3-Dichloropropene	ND	20	21	105		-	-		73-106	-		30
cis-1,3-Dichloropropene	ND	20	19	95		-	-		78-111	-		30
Bromoform	ND	20	20	100		-	-		45-131	-		30
1,1,2,2-Tetrachloroethane	ND	20	21	105		-	-		81-122	-		30
Benzene	ND	20	25	125	Q	-	-		84-116	-		30
Toluene	ND	20	22	110		-	-		83-121	-		30
Ethylbenzene	ND	20	22	110		-	-		84-123	-		30

Matrix Spike Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab	Associated sample(s): 01	QC Batch ID: WG906970-6		QC Sample: L1619097-01		Client ID: MS Sample						
Chloromethane	ND	20	22	110		-	-		70-144	-		30
Bromomethane	ND	20	14	70		-	-		63-141	-		30
Vinyl chloride	ND	20	24	120	Q	-	-		56-118	-		30
Chloroethane	ND	20	24	120		-	-		74-130	-		30
1,1-Dichloroethene	ND	20	22	110		-	-		77-116	-		30
trans-1,2-Dichloroethene	ND	20	23	115		-	-		81-121	-		30
cis-1,2-Dichloroethene[1]	ND	20	22	110		-	-		85-110	-		30
Trichloroethene	ND	20	24	120	Q	-	-		84-118	-		30
1,2-Dichlorobenzene	ND	20	17	85		-	-		78-128	-		30
1,3-Dichlorobenzene	ND	20	19	95		-	-		77-125	-		30
1,4-Dichlorobenzene	ND	20	19	95		-	-		77-125	-		30
p/m-Xylene[1]	ND	40	42	105		-	-		81-121	-		30
o-Xylene[1]	ND	20	22	110		-	-		81-124	-		30
Styrene[1]	ND	20	22	110		-	-		84-133	-		30
Acetone[1]	11	50	65	108		-	-		40-160	-		30
Carbon disulfide[1]	ND	20	20	100		-	-		54-134	-		30
2-Butanone[1]	ND	50	57	114		-	-		57-116	-		30
Vinyl acetate[1]	ND	40	29	72		-	-		40-160	-		30
4-Methyl-2-pentanone[1]	ND	50	54	108		-	-		79-125	-		30
2-Hexanone[1]	ND	50	54	108		-	-		78-120	-		30
Acrolein[1]	ND	40	ND	0	Q	-	-		40-160	-		30

Matrix Spike Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG906970-6 QC Sample: L1619097-01 Client ID: MS Sample												
Acrylonitrile[1]	ND	40	45	113		-	-		66-123	-		30
Dibromomethane[1]	ND	20	23	115		-	-		65-126	-		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
4-Bromofluorobenzene	96				80-120
Fluorobenzene	104				80-120
Pentafluorobenzene	102				80-120

Lab Duplicate Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG906970-5 QC Sample: L1619095-01 Client ID: DUP Sample						
Methylene chloride	ND	ND	ug/l	NC		30
1,1-Dichloroethane	ND	ND	ug/l	NC		30
Chloroform	ND	ND	ug/l	NC		30
Carbon tetrachloride	ND	ND	ug/l	NC		30
1,2-Dichloropropane	ND	ND	ug/l	NC		30
Dibromochloromethane	ND	ND	ug/l	NC		30
1,1,2-Trichloroethane	ND	ND	ug/l	NC		30
2-Chloroethylvinyl ether	ND	ND	ug/l	NC		30
Tetrachloroethene	ND	ND	ug/l	NC		30
Chlorobenzene	ND	ND	ug/l	NC		30
Trichlorofluoromethane	ND	ND	ug/l	NC		30
1,2-Dichloroethane	ND	ND	ug/l	NC		30
1,1,1-Trichloroethane	ND	ND	ug/l	NC		30
Bromodichloromethane	ND	ND	ug/l	NC		30
trans-1,3-Dichloropropene	ND	ND	ug/l	NC		30
cis-1,3-Dichloropropene	ND	ND	ug/l	NC		30
Bromoform	ND	ND	ug/l	NC		30
1,1,2,2-Tetrachloroethane	ND	ND	ug/l	NC		30
Benzene	ND	ND	ug/l	NC		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG906970-5 QC Sample: L1619095-01 Client ID: DUP Sample					
Toluene	ND	ND	ug/l	NC	30
Ethylbenzene	ND	ND	ug/l	NC	30
Chloromethane	ND	ND	ug/l	NC	30
Bromomethane	ND	ND	ug/l	NC	30
Vinyl chloride	ND	ND	ug/l	NC	30
Chloroethane	ND	ND	ug/l	NC	30
1,1-Dichloroethene	ND	ND	ug/l	NC	30
trans-1,2-Dichloroethene	ND	ND	ug/l	NC	30
cis-1,2-Dichloroethene[1]	ND	ND	ug/l	NC	30
Trichloroethene	ND	ND	ug/l	NC	30
1,2-Dichlorobenzene	ND	ND	ug/l	NC	30
1,3-Dichlorobenzene	ND	ND	ug/l	NC	30
1,4-Dichlorobenzene	ND	ND	ug/l	NC	30
p/m-Xylene[1]	ND	ND	ug/l	NC	30
o-Xylene[1]	ND	ND	ug/l	NC	30
Xylene (Total)[1]	ND	ND	ug/l	NC	30
Styrene[1]	ND	ND	ug/l	NC	30
Acetone[1]	ND	ND	ug/l	NC	30
Carbon disulfide[1]	ND	ND	ug/l	NC	30

Lab Duplicate Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG906970-5 QC Sample: L1619095-01 Client ID: DUP Sample					
2-Butanone[1]	ND	ND	ug/l	NC	30
Vinyl acetate[1]	ND	ND	ug/l	NC	30
4-Methyl-2-pentanone[1]	ND	ND	ug/l	NC	30
2-Hexanone[1]	ND	ND	ug/l	NC	30
Acrolein[1]	ND	ND	ug/l	NC	30
Acrylonitrile[1]	ND	ND	ug/l	NC	30
Dibromomethane[1]	ND	ND	ug/l	NC	30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	97		97		80-120
Fluorobenzene	102		101		80-120
4-Bromofluorobenzene	101		99		80-120

METALS

Project Name: SPECA
Project Number: BEA16-10918
Lab Number: L1619190
Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1619190-01
Client ID: BASEMENT SUMP DISCHARGE
Sample Location: 18 PORT WAY-DENNIS
Matrix: Water
Date Collected: 06/21/16 13:30
Date Received: 06/22/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/l	0.050	--	1	06/24/16 10:40	06/24/16 21:13	EPA 3005A	19,200.7	FB
Arsenic, Total	ND		mg/l	0.005	--	1	06/24/16 10:40	06/24/16 21:13	EPA 3005A	19,200.7	FB
Beryllium, Total	ND		mg/l	0.005	--	1	06/24/16 10:40	06/24/16 21:13	EPA 3005A	19,200.7	FB
Cadmium, Total	ND		mg/l	0.005	--	1	06/24/16 10:40	06/24/16 21:13	EPA 3005A	19,200.7	FB
Chromium, Total	ND		mg/l	0.010	--	1	06/24/16 10:40	06/24/16 21:13	EPA 3005A	19,200.7	FB
Copper, Total	ND		mg/l	0.0100	--	1	06/24/16 10:40	06/24/16 21:13	EPA 3005A	19,200.7	FB
Lead, Total	ND		mg/l	0.010	--	1	06/24/16 10:40	06/24/16 21:13	EPA 3005A	19,200.7	FB
Mercury, Total	ND		mg/l	0.00020	--	1	06/27/16 12:15	06/27/16 18:43	EPA 245.1	3,245.1	EA
Nickel, Total	ND		mg/l	0.025	--	1	06/24/16 10:40	06/24/16 21:13	EPA 3005A	19,200.7	FB
Selenium, Total	ND		mg/l	0.010	--	1	06/24/16 10:40	06/24/16 21:13	EPA 3005A	19,200.7	FB
Silver, Total	ND		mg/l	0.007	--	1	06/24/16 10:40	06/24/16 21:13	EPA 3005A	19,200.7	FB
Thallium, Total	ND		mg/l	0.020	--	1	06/24/16 10:40	06/24/16 21:13	EPA 3005A	19,200.7	FB
Zinc, Total	ND		mg/l	0.050	--	1	06/24/16 10:40	06/24/16 21:13	EPA 3005A	19,200.7	FB

Project Name: SPECA
Project Number: BEA16-10918
Lab Number: L1619190
Report Date: 06/29/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG907337-1										
Antimony, Total	ND		mg/l	0.050	--	1	06/24/16 10:40	06/24/16 21:05	19,200.7	FB
Arsenic, Total	ND		mg/l	0.005	--	1	06/24/16 10:40	06/24/16 21:05	19,200.7	FB
Beryllium, Total	ND		mg/l	0.005	--	1	06/24/16 10:40	06/24/16 21:05	19,200.7	FB
Cadmium, Total	ND		mg/l	0.005	--	1	06/24/16 10:40	06/24/16 21:05	19,200.7	FB
Chromium, Total	ND		mg/l	0.010	--	1	06/24/16 10:40	06/24/16 21:05	19,200.7	FB
Copper, Total	ND		mg/l	0.010	--	1	06/24/16 10:40	06/24/16 21:05	19,200.7	FB
Lead, Total	ND		mg/l	0.010	--	1	06/24/16 10:40	06/24/16 21:05	19,200.7	FB
Nickel, Total	ND		mg/l	0.025	--	1	06/24/16 10:40	06/24/16 21:05	19,200.7	FB
Selenium, Total	ND		mg/l	0.010	--	1	06/24/16 10:40	06/24/16 21:05	19,200.7	FB
Silver, Total	ND		mg/l	0.007	--	1	06/24/16 10:40	06/24/16 21:05	19,200.7	FB
Thallium, Total	ND		mg/l	0.020	--	1	06/24/16 10:40	06/24/16 21:05	19,200.7	FB
Zinc, Total	ND		mg/l	0.050	--	1	06/24/16 10:40	06/24/16 21:05	19,200.7	FB

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG908031-1										
Mercury, Total	ND		mg/l	0.0002	--	1	06/27/16 12:15	06/27/16 18:21	3,245.1	EA

Prep Information

Digestion Method: EPA 245.1

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG907337-2								
Antimony, Total	94		-		85-115	-		
Arsenic, Total	106		-		85-115	-		
Beryllium, Total	96		-		85-115	-		
Cadmium, Total	101		-		85-115	-		
Chromium, Total	94		-		85-115	-		
Copper, Total	96		-		85-115	-		
Lead, Total	99		-		85-115	-		
Nickel, Total	97		-		85-115	-		
Selenium, Total	102		-		85-115	-		
Silver, Total	97		-		85-115	-		
Thallium, Total	99		-		85-115	-		
Zinc, Total	99		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG908031-2								
Mercury, Total	97		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG907337-4 QC Sample: L1619190-01 Client ID: BASEMENT SUMP DISCHARGE												
Antimony, Total	ND	0.5	0.457	91		-	-		75-125	-		20
Arsenic, Total	ND	0.12	0.128	107		-	-		75-125	-		20
Beryllium, Total	ND	0.05	0.049	97		-	-		75-125	-		20
Cadmium, Total	ND	0.051	0.052	102		-	-		75-125	-		20
Chromium, Total	ND	0.2	0.187	94		-	-		75-125	-		20
Copper, Total	ND	0.25	0.250	100		-	-		75-125	-		20
Lead, Total	ND	0.51	0.501	98		-	-		75-125	-		20
Nickel, Total	ND	0.5	0.486	97		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.123	102		-	-		75-125	-		20
Silver, Total	ND	0.05	0.049	98		-	-		75-125	-		20
Thallium, Total	ND	0.12	0.118	98		-	-		75-125	-		20
Zinc, Total	ND	0.5	0.518	104		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG908031-4 QC Sample: L1618874-01 Client ID: MS Sample												
Mercury, Total	0.00039	0.005	0.0051	94		-	-		70-130	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG907337-3 QC Sample: L1619190-01 Client ID: BASEMENT SUMP DISCHARGE						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	ND	ND	mg/l	NC		20
Beryllium, Total	ND	ND	mg/l	NC		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	ND	ND	mg/l	NC		20
Copper, Total	ND	ND	mg/l	NC		20
Lead, Total	ND	ND	mg/l	NC		20
Nickel, Total	ND	ND	mg/l	NC		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Thallium, Total	ND	ND	mg/l	NC		20
Zinc, Total	ND	ND	mg/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG908031-3 QC Sample: L1618874-01 Client ID: DUP Sample						
Mercury, Total	0.00039	0.0004	mg/l	12		20

INORGANICS
&
MISCELLANEOUS

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1619190-01
Client ID: BASEMENT SUMP DISCHARGE
Sample Location: 18 PORT WAY-DENNIS
Matrix: Water

Date Collected: 06/21/16 13:30
Date Received: 06/22/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
TPH, SGT-HEM	ND		mg/l	4.00	--	1	06/25/16 12:20	06/25/16 13:20	74,1664A	KZ

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG907657-1										
TPH, SGT-HEM	ND		mg/l	4.00	--	1	06/25/16 12:20	06/25/16 13:20	74,1664A	KZ

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG907657-2								
TPH	95		-		64-132	-		34

Matrix Spike Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG907657-4 QC Sample: L1619405-02 Client ID: MS Sample												
TPH	ND	26.7	25.2	94		-	-		64-132	-		34

Lab Duplicate Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG907657-3 QC Sample: L1619291-01 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1619190
Report Date: 06/29/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1619190-01A	Vial Na2S2O3 preserved	A	N/A	3.3	Y	Absent	624(3)
L1619190-01B	Vial Na2S2O3 preserved	A	N/A	3.3	Y	Absent	624(3)
L1619190-01D	Plastic 250ml HNO3 preserved	A	<2	3.3	Y	Absent	NI-UI(180),SB-UI(180),AG-UI(180),ZN-UI(180),SE-UI(180),HG-U(28),CD-UI(180),BE-UI(180),CR-UI(180),AS-UI(180),CU-UI(180),PB-UI(180),TL-UI(180)
L1619190-01E	Amber 1000ml HCl preserved	A	N/A	3.3	Y	Absent	TPH-1664(28)

*Values in parentheses indicate holding time in days

Project Name:	SPECA	**Lab Number:**	L1619190
Project Number:	BEA16-10918	**Report Date:**	06/29/16

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Project Name:	SPECA	**Lab Number:**	L1619190
Project Number:	BEA16-10918	**Report Date:**	06/29/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: SPECA **Lab Number:** L1619190

Project Number: BEA16-10918 **Report Date:** 06/29/16

REFERENCES

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

74 Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 6/22/16

ALPHA Job #: L1619190

Project Information

Project Name: Speca

Project Location: 18 Port Way - West Dennis

Project #: BEA16-10918

Project Manager: David Bennett

ALPHA Quote #:

Client Information

Client: Bennett Environmental Associates

Address: P.O. Box 1743/1573 Main Street

Brewster, MA 02631

Phone: (5028) 896-1706

Fax: (508) 896-5109

Email: dbennett@bennett-ea.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #: 10646

Regulatory Requirements/Report Limits

State/Fed Program NPDES Criteria 401

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
(If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed. (Note: All CAM methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☒ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TPH	624	13 PRIORTIY POLLUTANTS										Sample Specific Comments	TOTAL # BOTTLES
L1619190-01	BASEMENT SUMP DISCHARGE	6/21/16	1:30 pm	E	DCB	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐	☒	☐		4
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		4

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	A	V	P	-	-	-	-	-	-	-	-	-
Preservative	B	O	C	-	-	-	-	-	-	-	-	-

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01(I) (rev. 20-JAN-2010)

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	6/21/16 2:30	BEA Office (storage)	
[signature]	6/22/16 1440	[signature] AAL	6/22/16 1440
[signature]	6/22/16 1815	[signature]	6/22/16 1815

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms

ALPHA ANALYTICAL

ANALYTICAL REPORT

Lab Number:	L1627324
Client:	Bennett Environmental Associates 1573 Main Street Brewster, MA 02631
ATTN:	David Bennett
Phone:	(508) 896-1706
Project Name:	SPECA
Project Number:	BEA16-10918
Report Date:	09/07/16

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1627324
Report Date: 09/07/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1627324-01	SUMP	WATER	18 PORT WAY-WEST DENNIS	08/31/16 09:15	08/31/16

Project Name:	SPECA	**Lab Number:**	L1627324
Project Number:	BEA16-10918	**Report Date:**	09/07/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Amita Naik

Title: Technical Director/Representative Date: 09/07/16

INORGANICS
&
MISCELLANEOUS

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1627324
Report Date: 09/07/16

SAMPLE RESULTS

Lab ID: L1627324-01
Client ID: SUMP
Sample Location: 18 PORT WAY-WEST DENNIS
Matrix: Water

Date Collected: 08/31/16 09:15
Date Received: 08/31/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	09/01/16 00:09	09/01/16 00:16	1,7196A	MC

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1627324
Report Date: 09/07/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG927919-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	09/01/16 00:09	09/01/16 00:15	1,7196A	MC

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1627324
Report Date: 09/07/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG927919-2								
Chromium, Hexavalent	99		-		85-115	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1627324
Report Date: 09/07/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG927919-4 QC Sample: L1627324-01 Client ID: SUMP												
Chromium, Hexavalent	ND	0.1	0.103	103		-	-		85-115	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1627324
Report Date: 09/07/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG927919-3 QC Sample: L1627324-01 Client ID: SUMP						
Chromium, Hexavalent	ND	ND	mg/l	NC		20

Project Name: SPECA
Project Number: BEA16-10918

Lab Number: L1627324
Report Date: 09/07/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1627324-01A	Plastic 250ml unpreserved	A	8	4.1	Y	Absent	HEXCR-7196(1)

*Values in parentheses indicate holding time in days

Project Name:	SPECA	**Lab Number:**	L1627324
Project Number:	BEA16-10918	**Report Date:**	09/07/16

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Project Name:	SPECA	**Lab Number:**	L1627324
Project Number:	BEA16-10918	**Report Date:**	09/07/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: SPECA
Project Number: BEA16-10918
Lab Number: L1627324
Report Date: 09/07/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: ***EPA 3050B***

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 8/31/16

ALPHA Job #: L1627324

ALPHA ANALYTICAL
Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Project Information

Project Name: Speca

Project Location: 18 Port Way - West Dennis

Project #: BEA16-10918

Project Manager: David Bennett

ALPHA Quote #:

Client Information

Client: Bennett Environmental Associates

Address: P.O. Box 1743/1573 Main Street
Brewster, MA 02631

Phone: (5028) 896-1706

Fax: (508) 896-5109

Email: dbennett@bennett-ea.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #: 10646

Regulatory Requirements/Report Limits

State/Fed Program NPDES *Criteria* 401

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes	☒ No	Are MCP Analytical Methods Required?
☐ Yes	☒ No	Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes	☒ No	Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
(If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed. (Note: All CAM methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☒ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Hexavalent Chromium	Sample Specific Comments	TOTAL # BOTTLES
27324-01	Sump	8/31/16	9:15 am	GW	JTW	☒		1
						☐		
						☐		
						☐		
						☐		
						☐		
						☐		
						☐		
						☐		
						☐		1

Container Type	P	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	A	-	-	-	-	-	-	-	-	-	-	-	-

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 20-JAN-2010)

Relinquished By:	Date/Time	Received By:	Date/Time
	8/31/16 3:20 pm		
	8-31-16 17:30	8-31-16 15:20	8/31/16 17:30

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 COMMERCIAL STREET, SUITE 300
CONCORD, NH 03301
PHONE: (603)223-2541 FAX: (603)223-0104
URL: www.fws.gov/newengland

Consultation Code: 05E1NE00-2016-SLI-2245 September 19, 2016
Event Code: 05E1NE00-2016-E-03131
Project Name: Speca Residence

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment

United States Department of Interior
Fish and Wildlife Service

Project name: Speca Residence

Official Species List

Provided by:

New England Ecological Services Field Office
70 COMMERCIAL STREET, SUITE 300
CONCORD, NH 03301
(603) 223-2541
http://www.fws.gov/newengland

Consultation Code: 05E1NE00-2016-SLI-2245
Event Code: 05E1NE00-2016-E-03131

Project Type: ** OTHER **

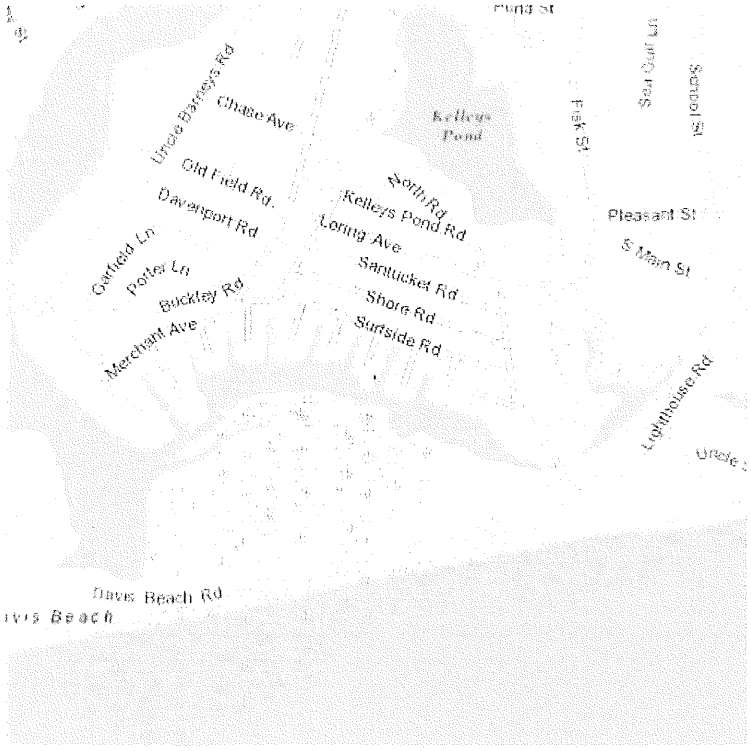
Project Name: Speca Residence
Project Description: This is an existing discharge of groundwater from a foundation sump via a 1.5" pipe. The area is fully developed. It is not a suitable habitat for the Red Knot Bird or Northern Long-eared Bat as identified by IPaC. Therefore, there is no effect and no take.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

United States Department of Interior
Fish and Wildlife Service

Project name: Speca Residence

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-70.17855852842331 41.65464748153963, -70.17856389284132 41.654641469385176, -70.17854243516922 41.654641469385176, -70.17855852842331 41.65464748153963)))

Project Counties: Barnstable, MA

United States Department of Interior
Fish and Wildlife Service

Project name: Speca Residence

Endangered Species Act Species List

There are a total of 2 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	**Status**	**Has Critical Habitat**	**Condition(s)**
Red Knot *(Calidris canutus rufa)* Population: Wherever found	Threatened		
Mammals			
Northern long-eared Bat *(Myotis septentrionalis)* Population: Wherever found	Threatened		

United States Department of Interior
Fish and Wildlife Service

Project name: Speca Residence

Critical habitats that lie within your project area

There are no critical habitats within your project area.

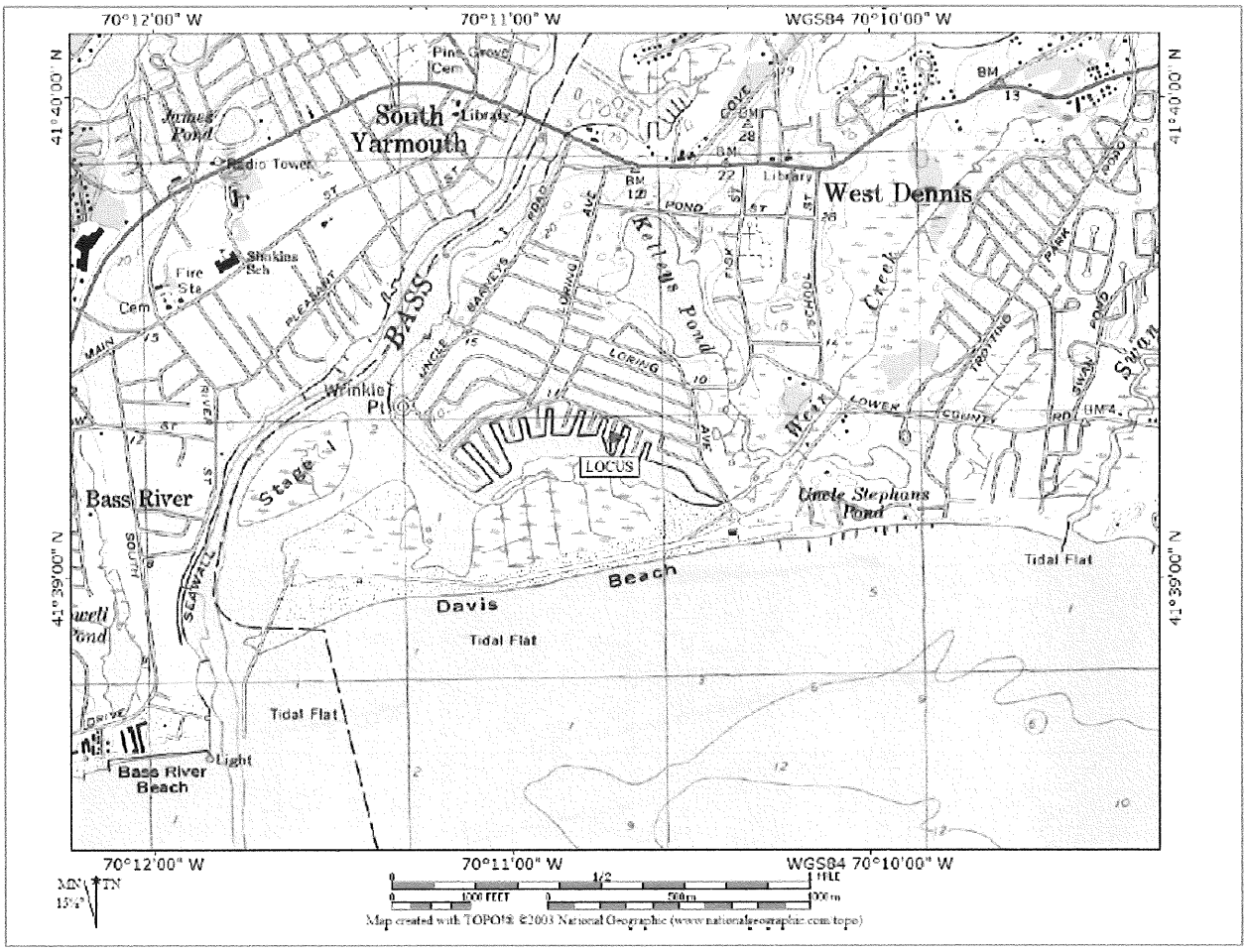


Figure 1

41* 39’ 17”

70* 10’ 43”

4’ El.

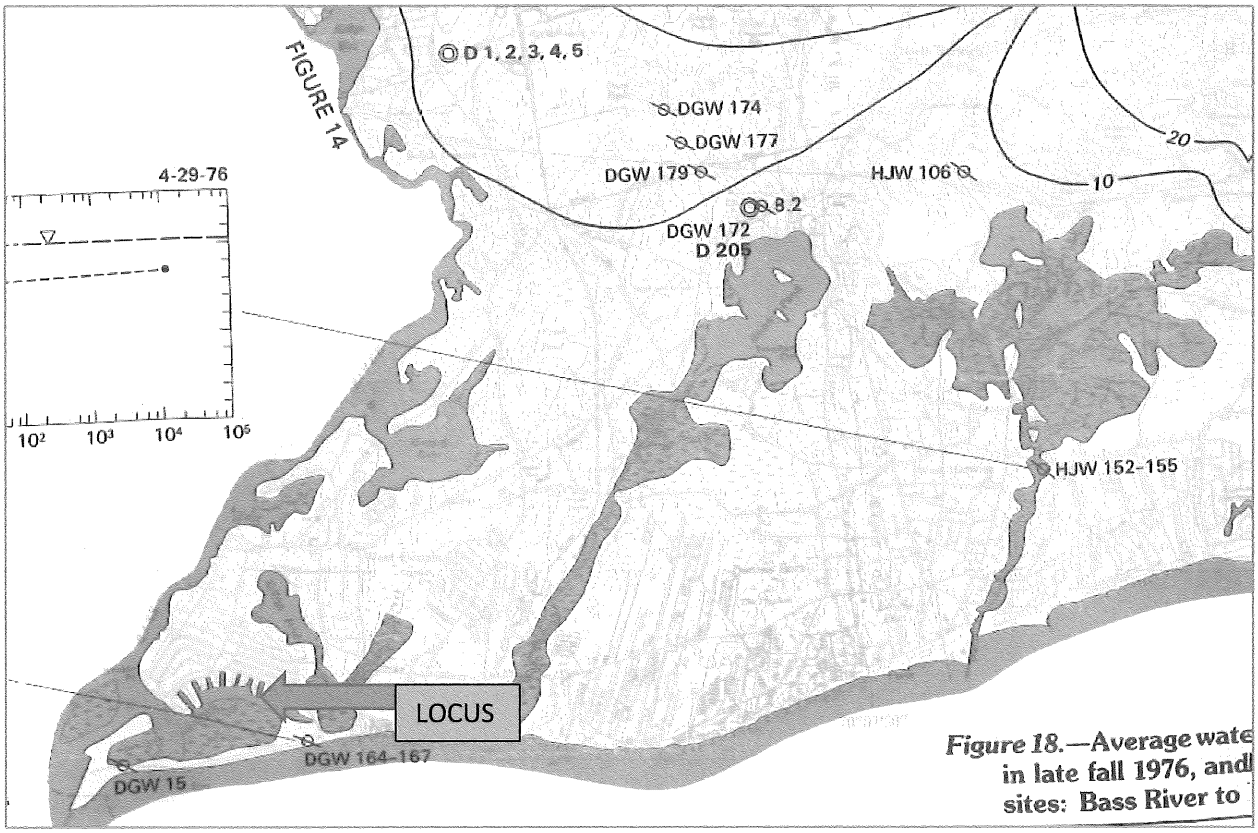


Figure 18.—Average wate
in late fall 1976, and
sites: Bass River to

Figure 2

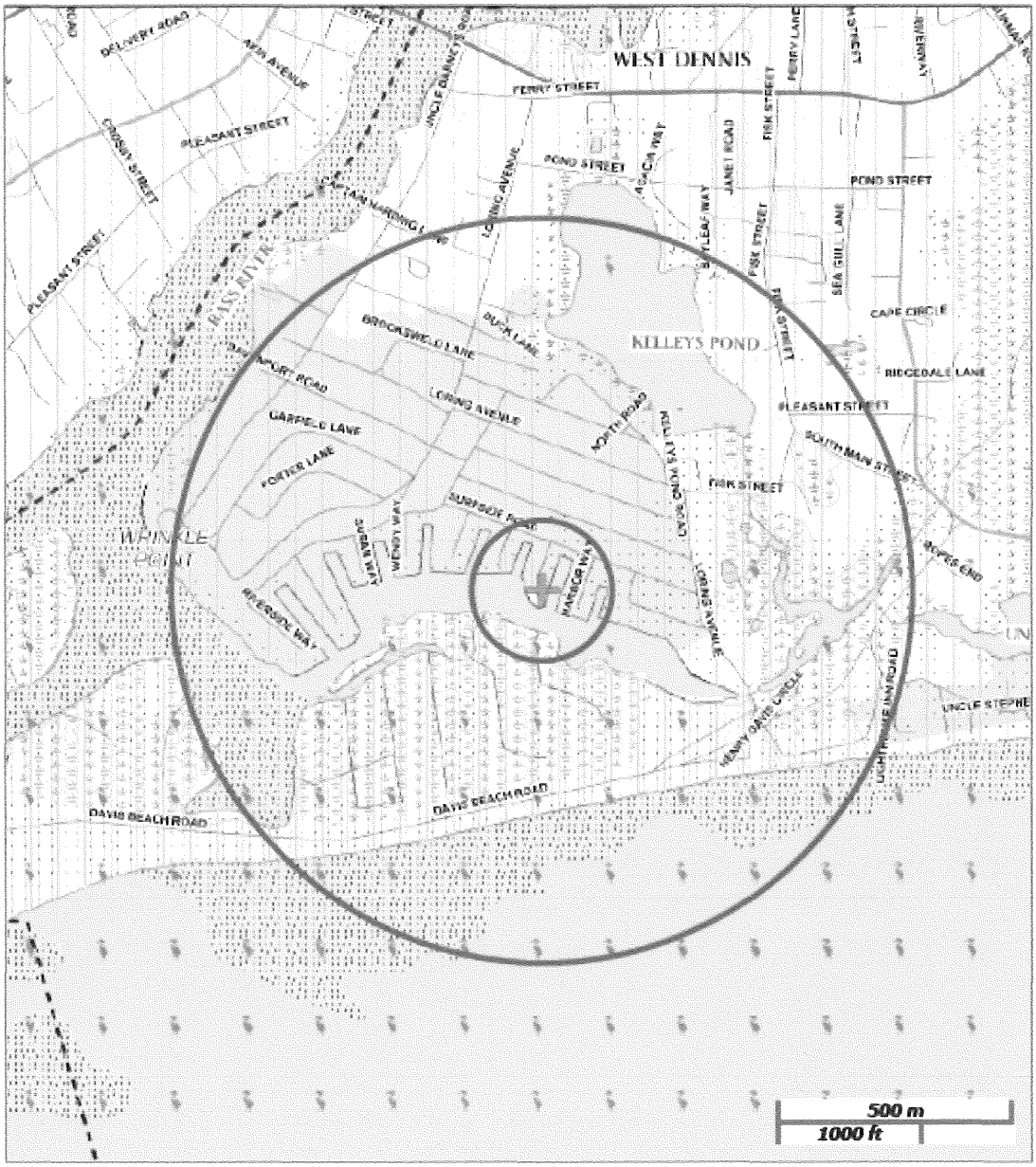

WEST DENNIS
FERRY STREET
POND STREET
KELLEYS POND
PLEASANT STREET
DAVIS BEACH ROAD
500 m
1000 ft

Figure 3