Town of Brewster Board of Health

2198 Main St., Brewster, MA 02631
brhealth@brewster-ma.gov
(508) 896-3701

BOARD OF HEALTH MEETING AGENDA
2198 Main Street
August 16, 2023 at 6:30PM

This meeting will be conducted in person at the date, time and location identified above. This means that at least a quorum of the members of the public body will attend the meeting in person and members of the public are welcome to attend in person as well. As a courtesy only, access to the meeting is also being provided via remote means in accordance with applicable law. Please note that while an option for remote attendance and/or participation is being provided as a courtesy to the public, the meeting/hearing will not be suspended or terminated if technological problems interrupt the virtual broadcast or affect remote attendance or participation, unless otherwise required by law. Members of the public with particular interest in any specific item on this agenda, which includes an applicant and its representatives, should make plans for in-person vs. virtual attendance accordingly.

Members of the public who wish to access the meeting may do so in the following manner:

Phone: Call (301)715-8592 or (312)626-6799. Webinar ID: 820 4394 4509 Passcode: 979174
To request to speak: Press *9 and wait to be recognized.
Zoom Webinar: https://us02Web.zoom.us/j/82043944509?pwd=MytpM2kvUExKbU1RS0hmM01Zb3dQZz09
Passcode: 979174
To request to speak: Tap Zoom "Raise Hand", then wait to be recognized.
When required by law or allowed by the Chair, persons wishing to provide public comment or otherwise participate in the meeting, may do so by accessing the meeting remotely, as noted above. Additionally, the meeting will be broadcast live, in real time, via ***Live broadcast*** (Brewster Government TV Channel 18), ***Livestream*** *(livestream.brewster-ma.gov) or* **Video recording** (tv.brewster-ma.gov)

1. Call to Order
2. Declaration of a Quorum
3. Recording Statement
4. Chairman's announcements
5. Citizen's forum: Members of the public may address the Board of Health on matters not on the meeting agenda for a maximum 3-5 minutes at the Chair's discretion. Under Open Meeting Law, the Board of Health is unable to reply but may add items presented to a future agenda
6. Pressure Dose letter update
7. COA liaison position update and possible vote
8. I/A Enforcement Discussion
    a. Review & approve enforcement letter
    b. Discuss non-compliant I/A systems using I/A Flow Chart
9. Liaison Reports
10. Matters not reasonably anticipated by the Chair
11. Items for next agenda
12. Next meeting: August 21, 2023 (Joint Select Board/BOH) and September 6, 2023
13. Informational items:
    a. Opioid Informational Pamphlets
    b. 2023 Annual Report for Eddy and Stony Brook Schools
    f. Monthly report for Sea Camp
    g. Monthly report for Kings Landing
    h. Monthly report for Pleasant Bay Health and Living Centers

16. Adjournment

Date Posted: August 10, 2023 **Date Revised:** **Received by Town Clerk:**

'23 AUG 1 P1:35

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Amy von Hone

From: Peter Lombardi
Sent: Monday, July 24, 2023 9:30 AM
To: Amy von Hone; Donna Kalinick
Cc: Elton Cutler; Tammi Mason
Subject: RE: Board of Health-Council on Aging Liaison
Attachments: Liaison_Policy #62.pdf

Hi Amy,
I meant to cover this at our community development team meeting last week. It is fine for committees to informally establish liaisons to other committees to help facilitate greater communication and collaboration. The Select Board has established the attached liaison policy, which we recommend other committees follow if they appoint liaisons (eg. FinCom). Thanks for checking in.
Peter

Peter Lombardi
Town Manager
Town of Brewster
508-896-3701 x. 1128

Brewster Town Offices are open to the public Monday through Thursday from 8:30am to 4:00pm, and by appointment on Fridays.

From: Amy von Hone <avonhone@brewster-ma.gov>
Sent: Monday, July 24, 2023 9:20 AM
To: Peter Lombardi <plombardi@brewster-ma.gov>; Donna Kalinick <dkalinick@brewster-ma.gov>
Cc: Elton Cutler <ecutler@brewster-ma.gov>; Tammi Mason <tmason@brewster-ma.gov>
Subject: FW: Board of Health-Council on Aging Liaison

Peter/Donna-

The Board of Health and Council on Aging Board are interested in pursuing a formal BOH liaison position to the COA Board. Both Boards have discussed the topic at recent meetings and wish to investigate the next steps. The current Town Bylaw does not specifically address a liaison position for either COA Town of Brewster, MA Council on Aging (ecode360.com) or BOH . Town of Brewster, MA Board of Health (ecode360.com). Please advise to the next step for us to pursue.

Thank you, Amy

Amy L. von Hone, R.S., C.H.O.
Brewster Health Director

(O) 508.896.3701 X1120
(F) 508.896.4538

From: Elton Cutler <ecutler@brewster-ma.gov>
Sent: Friday, July 21, 2023 3:45 PM
To: Amy von Hone <avonhone@brewster-ma.gov>
Subject: RE: Board of Health-Council on Aging Liaison

Town of Brewster
2198 Main Street
Brewster, MA 02631
www.brewster-ma.gov
Phone: (508) 896-3701
Email: brewster@brewster-ma.gov

Office of:
Select Board and
Town Administrator

SELECT BOARD LIAISON POLICY

Policy no. 62
Date adopted: July 6, 2020
Amended: _____

A. PURPOSE. Brewster Select Board members act as liaisons to Town boards, committees, and commissions to facilitate effective communication between those groups, the Select Board, and Town administration.

B. LIAISON ROLE. A Select Board Liaison will:

1. Establish a working relationship with the chair of each public body to which they are assigned and be available for consultation as needed.
2. Announce board, committee, and commission activities likely to be of interest to the public during "Select Board Announcements and Liaison Reports" at Select Board meetings.
3. Participate in board, committee, and commission meetings when that participation facilitates communication and action, when feasible.
4. Provide guidance to boards, committees, and commissions to facilitate progress on activities.
5. Serve as a resource to their assigned boards, committees, and commissions.
6. Inform the Town Administrator of board, committee, or commission issues and activities that the Town Administrator should be aware of or engaged in.
7. Not be a voting member of the board, committee, or commission unless so specified.
8. Speak as an individual Select Board member when participating in board, committee, or commission meetings, and not representing the voice of the full Select Board.
9. Be included on the meeting agenda distribution list for the public bodies they are assigned to.

C. APPOINTMENTS.

1. Following reorganization of Select Board leadership after an annual Town election, the Select Board Chair will make liaison assignments.
2. Select Board members will be invited to request specific assignments and the Chair will accommodate requests where possible.
3. When assignments are made, Select Board members are encouraged to contact the chair of each assigned group to inform that chair of the liaison assignment.

Approved by the Brewster Select Board July 6, 2020

Mary Chaffee, Chair

Benjamin deRuyter, Vice Chair

Cynthia Bingham, Clerk

David Whitney

Edward Chatelain

Town of Brewster

2198 MAIN STREET
BREWSTER, MASSACHUSETTS 02631-1898

PHONE: 508.896.3701 EXT. 1120
FAX: 508.896.4538
brhealth@brewster-ma.gov

WWW.BREWSTER-MA.GOV

Health Department

Amy L. von Hone, R.S., C.H.O.
Director

Sherrie McCullough, R.S.
Assistant Director

Tammi Mason
Senior Department Assistant

(Date)

(Homeowner)
(Mailing Address from Assessors/Tax Bill Records) Certified Mail (#)

RE: Notice of Noncompliance – Innovative/Alternative Sewage System (property address/assessors reference), Brewster

Dear (Homeowner):

This office monitors the sampling results for the Innovative/Alternative septic system approved and installed at your Brewster property in accordance with **310 CMR 15.287 of 310 CMR 15.000: The State Environmental Code, Title 5: General Conditions for the Use of Alternative Systems Pursuant to 310 CMR Under 15.2840 through 15.286.**

Our review finds that the Alternative System performance in the removal of total nitrogen is deficient, and concentrations of total nitrogen are consistently greater than that represented in the technology approval and local approvals granted. Such conditions could threaten public health, welfare and safety and adversely affect the environment. Therefore, you may be **out of compliance** with 310 CMR 15.000: The State Environmental Code, Title 5, and the Town of Brewster Local Board of Health Regulations.

To bring your Innovative/Alternative system into compliance, you must increase system treatment performance and lower total nitrogen concentrations. You should speak to your Wastewater Treatment System Operator to discuss these deficiencies and **to collect effluent samples and analyze total nitrogen (nitrate+nitrite+TKN) within thirty (30) days. They should forward these results to the Brewster Health Department within 15 days of receipt with an explanation of noncompliance and or corrective actions undertaken.** A list of certified operators is attached for your convenience.

You have the right to a hearing before the Board of Health to show cause why the Board should modify or withdraw this order. If you choose to exercise this right, you must do so, in writing, within seven (7) days of receipt of this letter.

If you have any further questions or comments about this matter, please contact our office Monday through Friday, 8:30- 4:00PM. Our telephone number is 508-896-3701 ext. 1120.

Failure to comply with this Notice will result in further Board of Health action and/or legal action including monetary fines.

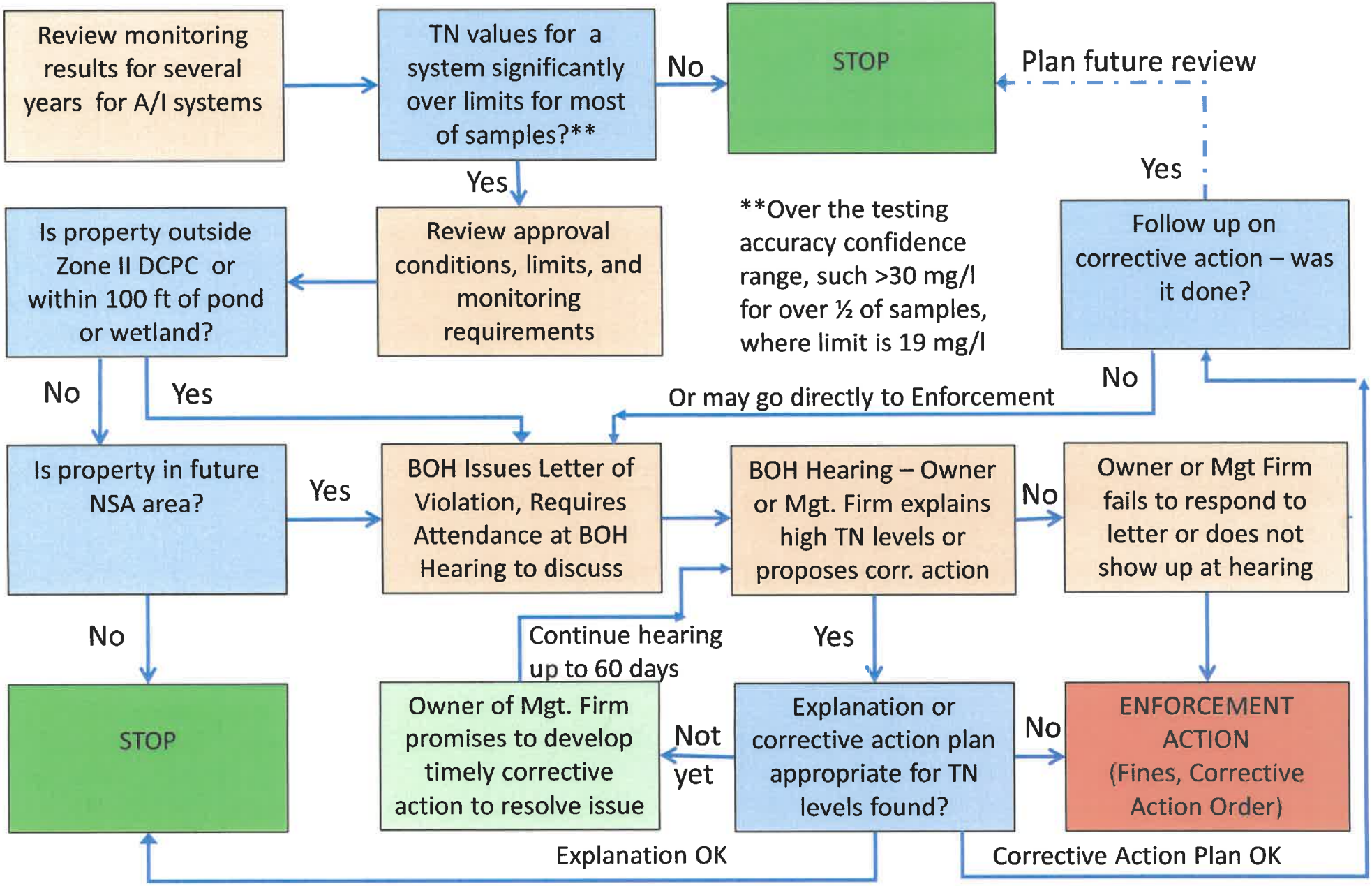
Respectfully,

Amy von Hone, R.S., C.H.O.
Health Director

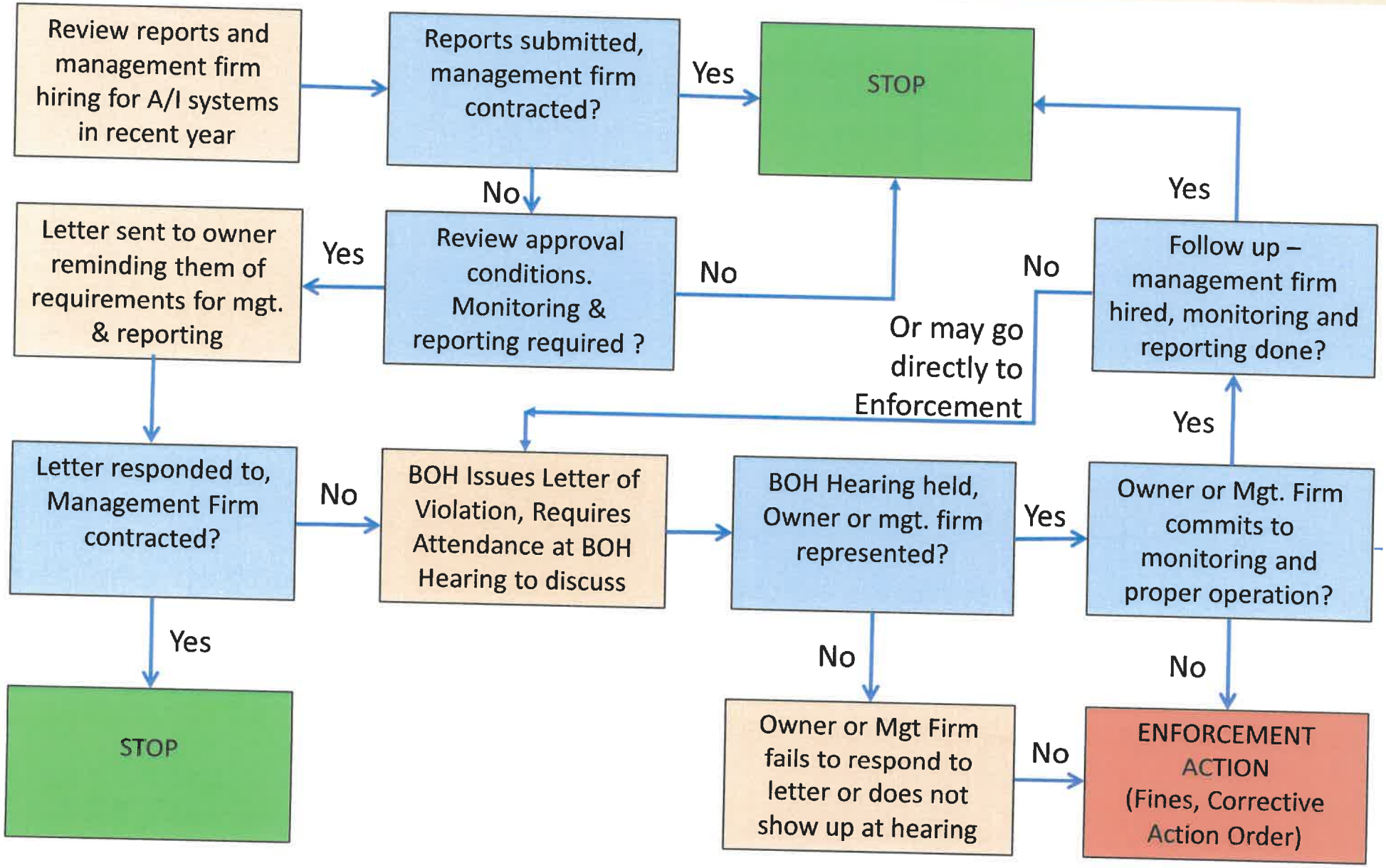
cc: Barnstable County Department of Health and Environment- Tracy Long
Board of Health
File

Enclosure: I/A Contractor List

Flow Chart
Compliance Monitoring of I/A Septic Systems



Flow Chart
I/A Septic Systems Failing to Monitor or Report



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Health Department

Amy L. von Hone, R.S., C.H.O.
Director

Sherrie McCullough, R.S.
Assistant Director

Tammi Mason
Senior Department Assistant

I/A System Samples for Discussion Continued
August 2, 2023 BOH Meeting

Sample I/A Systems (Systems out of compliance):

1. Systems approved by BOH at 7/19/23 meeting for letter notification of system noncompliance:

- BREW-Sat320Sin
- BREW-Jon158-Sin
- BREW-McG056-Sin

2. System BREW-McG039-FAS

- 2019 installation of MicroFAST 0.5
- Property in Zone II, DCPC, and Pleasant Bay and Herring River Watersheds
- General Approval with Nitrogen removal
- Maximum 19 ppm or 25 ppm of Total Nitrogen allowed
- Sample frequency – 2x/year
- Total Nitrogen above limit

3. System BREW-Tho007-Adv

- 2006 installation of Advantex AX20
- Property in Zone II, DCPC, and Pleasant Bay Watershed
- Provisional Approval with Nitrogen removal
- Maximum 19 ppm of Total Nitrogen allowed
- Sample frequency – 2x/year
- Total Nitrogen above limit
- BOH letter sent 6/28/23 for expired O & M Contract – no response to date

4. System BREW-Old078-Sin

- 2000 installation of Singulair 960 DN
- Property located in Zone II, DCPC, Private Well, and CC Bay Watershed
- Remedial Approval with testing for BOH and Total Nitrogen

- Maximum limit not established with approval
- Sample frequency – 2x/year (seasonal)
- Total Nitrogen above standard limit

5. System BREW-Lon159-Bio
- 2003 installation of Bioclere
- Property located in Zone II, DCPC, and Herring River Watershed
- Provisional Approval with testing for Total Nitrogen
- Maximum 19 ppm Total Nitrogen allowed
- Sample frequency 2x/year
- Total Nitrogen above limit

I/A System Sample Report History

[redacted]

Barnstable County Department of Health and Environment
P.O. Box 427, Barnstable, MA 02630

Effluent Sample Results

Date	TN	Nitrate	Nitrite	TKN	BOD5	TSS
03/15/2021	78.4	8.6	6.8	63	53	33
06/10/2021	32.888	26	0.888	6	14	6
09/10/2021	30.828	9.3	0.528	21	27	6
11/30/2021	27.51	19	0.41	8.1		9
03/09/2022	51.54	6.3	0.24	45		11
05/23/2022	40.95	17	0.95	23	35	31
09/01/2022	20.39	12	0.79	7.6		13
11/22/2022	38.21	6.8	0.41	31	25	17
05/17/2023	22.39	14	0.69	7.7	15	15
Median	**32.888**	**12**	**0.69**	**21**	**26**	**13**

Influent Sample Results

No Influent Sample Results

11/2

J.M. O'Reilly & Associates, Inc.

Professional Engineering, Land Surveying & Environmental Services

Site Development • Property Line • Subdivision • Sanitary • Land Court • Environmental Permitting

October 19, 2016

JMO-8248

RECEIVED
OCT 19 2016
BREWSTER HEALTH DEPARTMENT

Brewster Board of Health
2198 Main Street
Brewster, MA 02631

RE: Approval to Use I/A Technology
[redacted] 47/107

Dear Board Members,

As requested by our client, Mark Smith, J.M. O'REILLY & ASSOCIATES, INC. is submitting the attached site and Sewage Disposal System Plan for the proposed 2 bedroom dwelling on the above referenced property. The proposal calls for the use of a F.A.S.T. Treatment Process Unit (0.5 Model) in conjunction with the proposed conventional Title 5 sewage system.

The property is located within a Nitrogen Sensitive Area, as defined by 310 CMR 15.215, and is subject to a loading rate of 1 bedroom per 10,000 sf of land area. The property has an area of 18,159 sf+/-. The installation of the I/A treatment product will allow for the construction of a 2 bedroom dwelling as set forth under 310 CMR 15.217. The F.A.S.T. Treatment Unit (Model 0.5) has been approved for General Use for Nitrogen Reduction.

In keeping with the policy of the Brewster Board of Health, we are requesting the Board approve the use of the proposed I/A Technology. A representative will be present at your public hearing on November 2, 2016 to discuss the proposal in greater detail.

Please contact my office directly if you have any questions or need any additional information.

Very truly yours,
J.M. O'REILLY & ASSOCIATES, INC.

John M. O'Reilly, P.E., P.L.S.
Principal

CC: [redacted]
Lot Owner
JMO file

1573 Main Street, P.O. Box 1773, Brewster, MA 02631 • Phone: (508) 896-6601 • Fax: (508) 896-6602
www.jmoreillyassoc.com

Nancy Ice

From: Nancy Ice
Sent: Friday, November 04, 2016 2:36 PM
To: 'John O'Reilly'
Subject: [redacted]

On November 2, 2016, the Board of Health voted to approve the use of a FAST (Model 0.5) for this property.

If you have any questions, do not hesitate to contact this office.

Thanks,

Nancy Ellis Ice, MPH, CHO, RS
Health Director
Health Department
2198 Main Street
Brewster, MA 02631
nice@brewster-ma.gov
508-896-3701 ext. 1120
FAX 508-896-4538

GENERAL NOTES:

A.) NEITHER DRIVEWAYS NOR PARKING AREAS ARE ALLOWED OVER SEPTIC SYSTEM UNLESS H-20 COMPONENTS ARE USED.

B.) THE DESIGNER WILL NOT BE RESPONSIBLE FOR THE SYSTEM AS DESIGNED UNLESS CONSTRUCTED AS SHOWN. ANY CHANGES SHALL BE APPROVED IN WRITING.

C.) CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCEMENT OF WORK.

CONSTRUCTION NOTES:

1.) ALL CONSTRUCTION SHALL CONFORM TO THE STATE ENVIRONMENTAL CODE, TITLE 5, AND THE REQUIREMENTS OF THE LOCAL BOARD OF HEALTH.

2.) SEPTIC TANK(S), GREASE TRAP(S), DOSING CHAMBER(S) AND DISTRIBUTION BOX(ES) SHALL BE SET ON A LEVEL STABLE BASE WHICH HAS BEEN MECHANICALLY COMPACTED, OR ON A 6 INCH CRUSHED STONE BASE.

3.) SEPTIC TANK(S) SHALL MEET ASTM STANDARD C 1 27-93 AND SHALL HAVE AT LEAST THREE 20" DIAMETER MANHOLES. THE MINIMUM DEPTH FROM THE BOTTOM OF THE SEPTIC TANK TO THE FLOW LINE SHALL BE 48".

4.) SCHEDULE 40 PVC INLET AND OUTLET TEES SHALL EXTEND A MINIMUM OF 6" ABOVE THE FLOW LINE OF THE SEPTIC TANK AND SHALL BE INSTALLED ON THE CENTERLINE OF THE TANK DIRECTLY UNDER THE CLEANOUT MANHOLE.

5.) RAISE COVERS OF THE SEPTIC TANK AND DISTRIBUTION BOX WITH PRECAST CONCRETE WATER TIGHT RISERS OVER INLET AND OUTLET TEES TO WITHIN 6" OF FINISH GRADE, OR AS APPROVED BY THE LOCAL BOARD OF HEALTH AGENT.

6.) PIPING SHALL CONSIST OF 4" SCHEDULE 40 PVC OR EQUIVALENT. PIPE SHALL BE LAID ON A MINIMUM CONTINUOUS GRADE OF NOT LESS THAN 1%.

7.) DISTRIBUTION LINES FOR SOIL ABSORPTION SYSTEM (AS REQUIRED) SHALL BE 4" DIAMETER SCHEDULE 40 PVC LAID AT 0.00S FT/FT. LINE SHALL BE CAPPED AT END OR AS NOTED.

8.) OUTLET PIPES FROM DISTRIBUTION BOX SHALL REMAIN LEVEL FOR AT LEAST 2' BEFORE PITCHING TO SOIL ABSORPTION SYSTEM. WATER TEST DISTRIBUTION BOX TO ASSURE EVEN DISTRIBUTION.

9.) DISTRIBUTION BOX SHALL HAVE A MINIMUM SUMP OF 6" MEASURED BELOW THE OUTLET INVERT.

10.) BASE AGGREGATE FOR THE LEACHING FACILITY SHALL CONSIST OF 3/4" TO 1-1/2" DOUBLE WASHED STONE FREE OF IRON, FINES AND DUST AND SHALL BE INSTALLED BELOW THE CROWN OF THE DISTRIBUTION LINE TO THE BOTTOM OF THE SOIL ABSORPTION SYSTEM. BASE AGGREGATE SHALL BE COVERED WITH A 2" LAYER OF 1/8" TO 1/2" DOUBLE WASHED STONE FREE OF IRON, FINES AND DUST.

11.) VENT SOIL ABSORPTION SYSTEM WHEN DISTRIBUTION LINES EXCEED 50 FEET; WHEN LOCATED EITHER IN WHOLE OR IN PART UNDER DRIVEWAYS, PARKING AREAS, TURNING AREAS OR OTHER IMPERVIOUS MATERIAL; OR WHEN PRESSURE DOSED.

12.) SOIL ABSORPTION SYSTEM SHALL BE COVERED WITH A MINIMUM OF 9" OF CLEAN MEDIUM SAND (EXCLUDING TOPSOIL).

13.) FINISH GRADE SHALL BE A MAXIMUM OF 36" OVER THE TOP OF ALL SYSTEM COMPONENTS, INCLUDING THE SEPTIC TANK, DISTRIBUTION BOX, DOSING CHAMBER AND SOIL ABSORPTION SYSTEM. SEPTIC TANKS SHALL HAVE A MINIMUM COVER OF 9".

14.) FROM THE DATE OF INSTALLATION OF THE SOIL ABSORPTION SYSTEM UNTIL RECEIPT OF A CERTIFICATE OF COMPLIANCE, THE PERIMETER OF THE SOIL ABSORPTION SYSTEM SHALL BE STAKED AND FLAGGED TO PREVENT THE USE OF SUCH AREA FOR ALL ACTIVITIES THAT MIGHT DAMAGE THE SYSTEM.

15.) THE BOARD OF HEALTH SHALL REQUIRE INSPECTION OF ALL CONSTRUCTION BY AN AGENT OF THE BOARD OF HEALTH (OR THE DESIGNER IF THIS SYSTEM REQUIRES A VARIANCE) AND MAY REQUIRE SUCH PERSON TO CERTIFY IN WRITING THAT ALL WORK HAS BEEN COMPLETED IN ACCORDANCE WITH THE TERMS OF THE PERMIT AND APPROVED PLANS. 48 HOURS ADVANCE NOTICE IS REQUESTED.

16.) SOIL REMOVAL: THE TOPSOIL (A) AND THE SUBSOIL (B) SHALL BE REMOVED DOWN TO THE CLEAN MEDIUM TO COARSE SAND LAYER (C1) AND FOR A DISTANCE OF 5 FEET FROM THE SOIL ABSORPTION SYSTEM (SAS). AREA SHALL BE BACKFILLED WITH CLEAN "TITLE 5" SAND, COMPACTED TO MINIMIZE SETTLEMENT.

17.) OWNER SHALL PROVIDE INFORMATION TO BUILDER ON TYPE OF FINISH FOR THE PROPOSED DRIVEWAY.

18.) OWNER/BUILDER SHALL REVIEW THE ZONING REQUIREMENTS SO AS TO ENSURE ZONING COMPLIANCE, PRIOR TO STARTING THE PROJECT.

SOIL TEST LOGS:

TEST HOLE 1: EL=47.1±

DEPTH FROM SURFACE (INCHES)	SOIL HORIZON	SOIL TEXTURE (USDA)	SOIL COLOR (MUNSELL)	SOIL MOTTLING	OTHER
0-7"	A	LOAMY FINE SAND	10YR 3/2	NONE	
7"-15"	B	MEDIUM SAND	10YR 6/8	NONE	
15"-29"	C1	MEDIUM-COARSE SAND	10YR 6/8	NONE	
29"-120"	C2	MEDIUM-COARSE SAND	10YR 7/8	NONE	PERC @ 36"
					24 GAL IN 15 MIN

TEST HOLE 2: EL=47.0±

DEPTH FROM SURFACE (INCHES)	SOIL HORIZON	SOIL TEXTURE (USDA)	SOIL COLOR (MUNSELL)	SOIL MOTTLING	OTHER
0-7"	A	LOAMY FINE SAND	10YR 3/2	NONE	
7"-15"	B	MEDIUM SAND	10YR 6/8	NONE	
15"-29"	C1	MEDIUM-COARSE SAND	10YR 6/8	NONE	
29"-120"	C2	MEDIUM-COARSE SAND	10YR 7/8	NONE	

TEST HOLE 3: EL=37.5±

DEPTH FROM SURFACE (INCHES)	SOIL HORIZON	SOIL TEXTURE (USDA)	SOIL COLOR (MUNSELL)	SOIL MOTTLING	OTHER
0-8"	A	LOAMY FINE SAND	10YR 3/2	NONE	
8"-16"	B	MEDIUM SAND	7.5YR 6/8	NONE	
16"-24"	C1	MEDIUM-COARSE SAND	10YR 6/8	NONE	
24"-126"	C2	MEDIUM COARSE SAND	10YR 7/8	NONE	20% COBBLES

TEST HOLE 4: EL=37.5±

DEPTH FROM SURFACE (INCHES)	SOIL HORIZON	SOIL TEXTURE (USDA)	SOIL COLOR (MUNSELL)	SOIL MOTTLING	OTHER
0-8"	A	LOAMY FINE SAND	10YR 3/2	NONE	
8"-16"	B	MEDIUM SAND	7.5YR 6/8	NONE	
16"-24"	C1	MEDIUM-COARSE SAND	10YR 6/8	NONE	PERC @ 24"
24"-126"	C2	MEDIUM COARSE SAND	10YR 7/8	NONE	20% COBBLES
					24 GAL IN 15 MIN

DATE OF TESTING: 10-4-16
PERCOLATION RATE: LESS THAN 2 MIN/IN? IN C1 & C2 LAYERS.
WITNESSED BY: ROBERT REEDY, EIT, J.M. O'REILLY & ASSOCIATES, INC.
SHERRIE MCCULLOUGH, AGENT, BREWSTER HEALTH DEPARTMENT
NO WATER ENCOUNTERED
USE A LOADING RATE OF 0.74 GPD/SF FOR SIZING OF SOIL ABSORPTION SYSTEM.

FAST NOTES:

1. BLOWER PIPING TO FAST MAY NOT EXCEED 100 FEET TOTAL LENGTH AND USE A MAXIMUM OF 4 ELBOWS IN THE PIPING SYSTEM. FOR DISTANCES GREATER THAN 100 FEET, CONSULT FACTORY. BLOWER MUST BE LOCATED ABOVE FLOOD LEVELS ON A CONCRETE PAD 24"X18"X2" MINIMUM.
2. VENT TO BE LOCATED ABOVE FINISH GRADE OR HIGHER TO AVOID INFILTRATION. CAPE WITH A VENT GRATE WITH 7.1 SQ IN OPEN SURFACE AREA. SECURE WITH STAINLESS STEEL SCREWS (SEE SHEET 4 OF 4 OF MICRO FAST 0.50 DETAILS) OR
RUN VENT TO DESIRED LOCATION AND COVER OPENING WITH A VENT GRATE WITH AT LEAST 7.1 SQ IN OPEN SURFACE AREA. SECURE WITH STAINLESS STEEL SCREWS. VENT PIPING MUST NOT ALLOW EXCESS MOISTURE BUILD UP OR BACK PRESSURE.
3. ALL APPURTENANCES TO FAST (TANK, PUMP OUTS, ETC) MUST CONFORM TO ALL APPLICABLE COUNTY, STATE AND LOCAL PLUMBING AND ELECTRICAL CODES.
4. TANK VOLUME MUST BE INCREASED BY 20% IF MINIMUM OF 10 INCHES IS USED BETWEEN THE UNIT AND THE BASE OF THE TANK. CONSULT FACTORY FOR APPROVAL.
5. THE PRIMARY COMPARTMENT MAY BE A SEPARATE TANK.
6. EITHER THE INFLUENT PIPE TEE SHALL BE FITTED WITH A PIPE CAPE OR A BAFFLE SEPARATING THE TWO ZONES, SHALL BE EXTENDED ALL THE WAY TO THE TOP OF THE TANK. IF CHOOSING TO USE A TEE PIPE CAP, THEN THE BAFFLE SHALL BE AT LEAST 3" HIGHER THAN THE WATER LEVEL AS ON THE DRAWING.
7. ALL INSPECTION, VIEWING AND PUMP OUT PORTS MUST BE SECURED TO PREVENT ACCIDENTAL OR UNAUTHORIZED ACCESS.
8. TANK, PIPING, CONDUIT, BLOWER HOUSING PAD AND VENTS ARE PROVIDED BY OTHERS.
9. ALL PIPING AND AND ANCILLARY EQUIPMENT INSTALLED AFTER FAST MUST NOT IMPEDE OR RESTRICT FREE FLOW OF EFFLUENT.
10. THE AIR SUPPLY LINE INTO FAST UNIT MUST BE SECURED TO PREVENT VIBRATION INDUCED DAMAGE. THE AIR SUPPLY LINE SHOULD BE SECURED WITH A NON-CORROSIVE CLAMP EVERY 2 FEET MINIMUM. SEE ALTERNATE AIR SUPPLY OPTION ON SHEET 4 OF 4 MICRO FAST 0.50 DETAILS.
11. MINIMUM HEIGHT MAY BE REDUCED, CONSULT FACTORY AND REFERENCED "SHORT FAST-MODULE-PROCEDURE.PDF".
12. REFER TO SHEET 4 OF 4 OF MICRO FAST 0.50 DETAILS DRAWING FOR LEG EXTENSION REQUIREMENTS.

SYSTEM DESIGN CALCULATIONS:

SEWAGE DESIGN FLOW:
2 BEDROOM DWELLING @ 110 GPD = 220 GPD

LEACHING CAPACITY REQUIRED:
3 BEDROOMS (MAX.) @ 110 GPD = 330 GPD REQUIRED

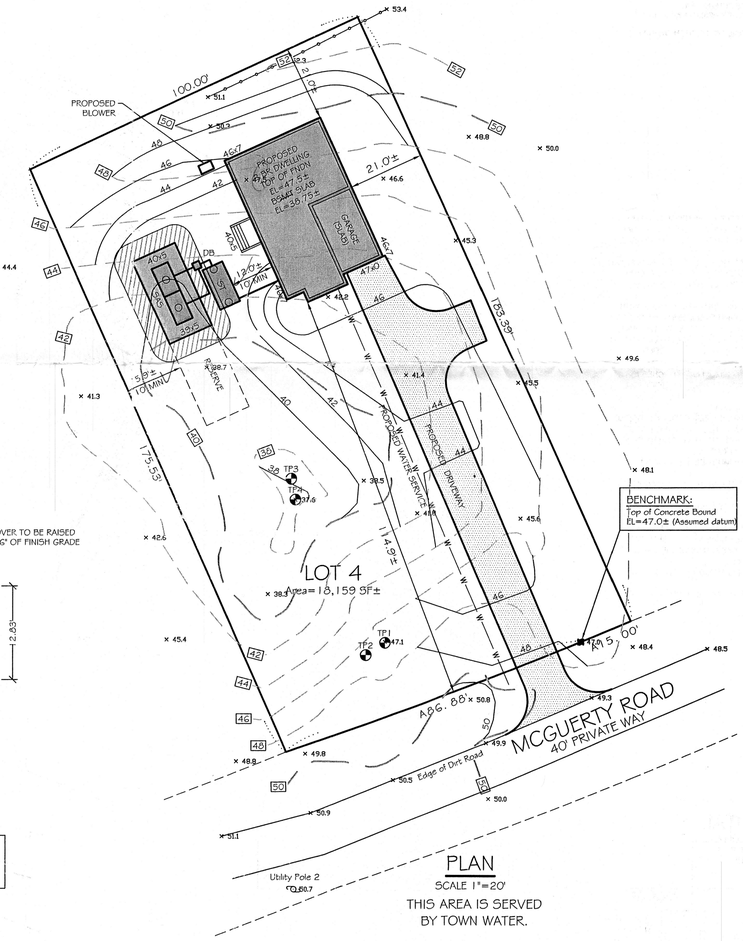
SEPTIC TANK CAPACITY REQUIRED:
DAILY FLOW = 220 GPD @ 200% = 440 GAL. REQUIRED

SEPTIC TANK CAPACITY PROVIDED:
1500 GALLON SEPTIC TANK (MIN. 750 ALLOWED)

LEACHING CAPACITY PROVIDED:
ONE (1) 25' X 12.83' X 2.0' LEACHING CHAMBER CAN LEACH:
Vt=[(25 X 12.83) + (25 X 2.0)2 + (12.83 X 2.0)2] X 0.74 GPD/SF = 349 GPD
349 GPD > 330 GPD REQUIRED

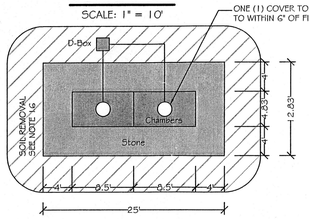
NOTE: A GARBAGE DISPOSAL IS NOT PERMITTED WITH THIS DESIGN.

INSTALL:
ONE (1) - 0.50 TOP MOUNTED F.A.S.T. TREATMENT UNIT WITH A 1500 GALLON SEPTIC TANK (MFG: SHOREY PRECAST)
ONE (1) - 3 OUTLET DISTRIBUTION BOX (H-20 Rated)
TWO (2) - 500 GALLON LEACH CHAMBERS WITH 4' OF STONE ALL AROUND



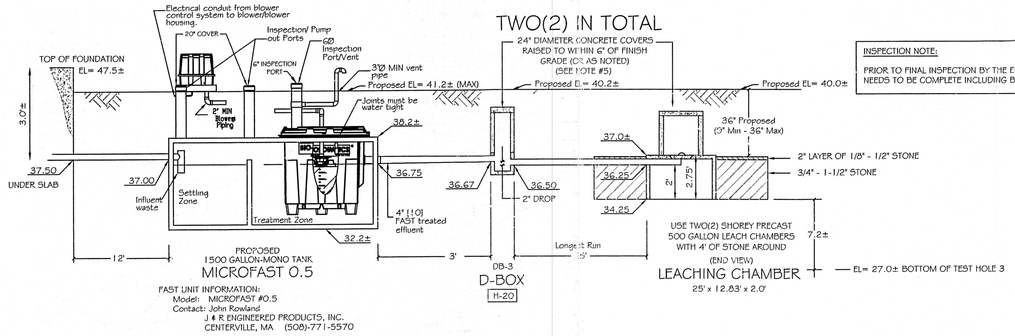
PLAN VIEW

SCALE: 1" = 10'



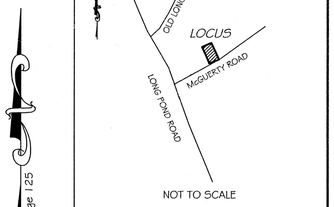
FLOW PROFILE:

NOT TO SCALE



FAST UNIT INFORMATION:
Model: MICROFAST #0.5
Contact: John Rowland
J & R ENGINEERED PRODUCTS, INC.
CENTERVILLE, MA (508)-771-5570

INSPECTION NOTE:
PRIOR TO FINAL INSPECTION BY THE ENGINEER, SYSTEM NEEDS TO BE COMPLETE INCLUDING BUILDUP FOR COVERS.



Plan Book 180 Page 125

PLAN BOOK 180	PAGE 125
DEED BOOK 21423	PAGE 336
ASSESSORS' MAP 94	PARCEL 75

LEGEND

32	EXISTING CONTOUR
32	PROPOSED CONTOUR
×12.34	EXISTING SPOT GRADE
24x5	PROPOSED SPOT GRADE
W	WATER SERVICE LINE
O	OVERHEAD UTILITY SERVICE
U	UNDERGROUND UTILITY SERVICE
G	GAS SERVICE LINE
TP	TEST HOLE / BORING LOCATION
ST	SEPTIC TANK
DB	DISTRIBUTION BOX
SAS	SOIL ABSORPTION SYSTEM
Reserve	RESERVED FOR FUTURE
	UTILITY POLE
	CATCH BASIN
	FIRE HYDRANT
W	WELL
	DRAINAGE MANHOLE
	CONCRETE BOUND, FOUND
	TOP OF BANK
x x	LIMIT OF WORK
	FENCE
	EDGE OF CLEARING

ZONING

BUILDING SETBACKS

FRONT	30 FEET
SIDE	20 FEET
REAR	20 FEET

ZONING SETBACKS ARE TO BE CONFIRMED BY THE ZONING AGENT.
LOT CREATED ON APRIL 1982 SUBDIVISION PLAN BOOK 180, PAGE 125

AVERAGE GRADE ELEVATION (AGE):
AGE = 42.0+44.0+49.5+46.5)/4 = 46.0±
MAX RIDGE HEIGHT (MRH):
MRH = 46.0 + 30 FEET = 76.0±
PROPOSED HEIGHT OF BUILDING = 28.18 FEET
(TOP OF FOUNDATION TO RIDGE)
PROPOSED RIDGE HEIGHT:
= 47.5 + 28.18 = 75.7±

10/18/17
11/7/18

REVISED 10-10-2017: RELOCATED DWELLING TOWARDS THE REAR PROPERTY LINE, ADJUSTED GRADING, TOP OF FOUNDATION, SEWAGE SYSTEM LOCATION AND ELEVATIONS.

[redacted]

[redacted]

COMMONWEALTH OF MASSACHUSETTS — JOHN M. O'REILLY NO. 46733 — PROFESSIONAL LAND SURVEYOR
COMMONWEALTH OF MASSACHUSETTS — JOHN M. O'REILLY CIVIL NO. 39200 — REGISTERED PROFESSIONAL ENGINEER

0 20 40 60
SCALE 1"=20'

G:\AAJobs\amt\6240\dwg\6248.505 PLAN - REVISED 10-10-2017.dwg

J.M. O'REILLY & ASSOCIATES, INC.
Professional Engineering & Land Surveying Services
1573 Main Street - Route 6A
P.O. Box 1773
(508)896-6601 Office Brewster, MA 02631 (508)896-6602 Fax

DATE:	SCALE:	BY:	CHECK:	JOB NUMBER:
10-17-2016	As Noted	JMO/gb	JMO	JMO-8248

I/A System Sample Report History

[redacted]

Barnstable County Department of Health and Environment
P.O. Box 427, Barnstable, MA 02630

Effluent Sample Results

Date	TN	Nitrate	Nitrite	TKN	Ammonia	CBOD5	TSS	pH	Alkalinity
03/12/2008	39.38	3.8	0.58	35	35	13	15	7.18	140
08/20/2008	23.29	12	0.29	11	5.9	34	5	6.64	50
12/10/2008	31.78	10	0.78	21	21	35	4	6.85	110
06/04/2009	62.8	3.5	0.3	59	51	58	34		280
08/11/2009	34.73	16	0.73	18	14		6		61
11/04/2009	16.58	10	0.88	5.7	2.3	4	21		
01/20/2010	23.1	9.5	1.6	12	10	9	16		18
11/08/2010	29.87	13	0.87	16	8.2	7	13	6.58	64
02/02/2011	17.61	11	0.51	6.1	3.4	9	15	6.1	44
09/17/2021	36.249	18	0.249	18		11	45	6.5	
11/30/2021	31.98	22	0.28	9.7	4.8	7.2	46	6	
02/23/2022	28.8	21	0.1	7.7		16	58	6	
Median	**30.825**	**11.5**	**0.545**	**14**	**9.1**	**11**	**15.5**	**6.54**	**62.5**

Influent Sample Results

No Influent Sample Results

Town of Brewster

2198 MAIN STREET
BREWSTER, MASSACHUSETTS 02631-1898

PHONE: 508.896.3701 EXT. 1120
FAX: 508.896.4538
brhealth@brewster-ma.gov

WWW.BREWSTER-MA.GOV

Health Department

Amy L. von Hone, R.S., C.H.O.
Director

Sherrie McCullough, R.S.
Assistant Director

Tammi Mason
Senior Department Assistant

June 28, 2023

[redacted]

Certified Mail #7018 2290 0000 2350 3376

Dear Mr. [redacted]

This office has learned that the Innovative/Alternative septic system installed at the above-referenced location does not have a current Operation and Maintenance contract. **310 CMR 15.287(9) of 310 CMR 15.000: The State Environmental Code, Title 5: Standard Requirements for the Siting, Construction, Inspection, Upgrade and Expansion of On-site Sewage Treatment and Disposal Systems and for the Transport and Disposal of Septage** states:

> "The system owner shall maintain an operation and maintenance contract with a Massachusetts Certified Operator where one is required by 257 CMR 2.00: *Certification of Operators of Wastewater Treatment Facilities,* or otherwise with a person qualified to operate and maintain the system in Accordance with the Department's written approval."

Therefore, you are **out of compliance** with 310 CMR 15.000: The State Environmental Code, Title 5, and the Town of Brewster Local Regulation to supplement Title 5, State Environmental Code Monitoring of Innovative/Alternative On-Site Sewage Treatment Systems.

To bring this Innovative/Alternative system into compliance, you must enter into a valid Operation and Maintenance contract with a qualified vendor **within fifteen (15) days of receipt of this notice and provide written proof to the Brewster Health Department**. A list of certified operators is attached for your convenience.

You have the right to a hearing before the Board of Health to show cause why the Board should modify or withdraw this order. If you choose to exercise this right, you must do so, in writing, within seven (7) days of receipt of this letter.

If you have any further questions or comments about this matter, please contact our office Monday through Friday, 8:30- 4:00PM. Our telephone number is 508-896-3701 ext. 1120.

Failure to comply with this Notice will result in further Board of Health action and/or legal action including monetary fines.

Respectfully,

Amy von Hone, R.S., C.H.O.
Health Director

cc: Barnstable County Department of Health and Environment- Tracy Long
Board of Health
File

Enclosure: I/A Contractor List

N:\Health\IA Information\Enforcement Letters\7-9 Thousand Oaks Drive Noncompliance letter 06.28.23.doc

Town of Brewster

2198 MAIN STREET
BREWSTER, MASSACHUSETTS 02631-1898

(508) 896-3701
FAX (508) 896-8089

Health Department
Nancy Ellis Ice

January 5, 2006

David Clark, P.E.
Clark Engineering, LLC
156 Crowell Road, Suite B
Chatham, MA 02633

[redacted]

Dear Mr. Clark:

On January 3, 2006, the Board of Health voted to approve the sewage disposal system plan dated December 2, 2005 and revised December 19, 2005 with the condition that a deed restriction limits the property to four (4) bedrooms.

If you have any questions, do not hesitate to contact this office.

Sincerely,

Nancy Ellis Ice

Nancy Ellis Ice, CHO, RS
Health Director

Town of Brewster

2198 MAIN STREET
BREWSTER, MASSACHUSETTS 02631-1898

(508) 896-3701
FAX (508) 896-8089

Health Department
Nancy Ellis Ice

February 12, 2014

Jason Churchill
Government Relations Representative
Orenco Systems, Inc.
814 Airway Avenue
Sutherlin, Oregon 97479

[redacted]

Dear Mr. Churchill:

On February 4, 2014, the Board of Health reviewed your request, on the owner's behalf, to reduce the monitoring required by the Massachusetts Department of Environmental Protection Provisional Use Approval.

The Board did vote to not reduce the monitoring requirements since this system has not been performing to the standards for the life of this system at this property.

If you have any questions, do not hesitate to contact this office.

Sincerely,

Nancy Ellis Ice

Nancy Ellis Ice, CHO, RS
Health Director

Brian Baumgaertel, Barnstable County Department of Health and Environment

DEEP OBSERVATION HOLE LOG

T.H.#1
Date of Test

Existing Grade 79.5

Depth		
0	O Fibric	
4"		79.2
	A Loamy Sand 10YR 3/4	
10"		78.7
	B Loamy Sand 10YR 5/8	
48"		75.5
65"	C Coarse Sand 10YR 7/4 Class I	
132"		68.5

Material to be removed SEE NOTE #2

T.H.#2
Date of Test

Existing Grade 80.0

Depth		
0	A Loamy Sand 10YR 3/6	
10"		79.2
	B Loamy Sand 10YR 5/6	
54"		75.5
73"	C Coarse Sand 10YR 8/6 Class I	
120"		70.0

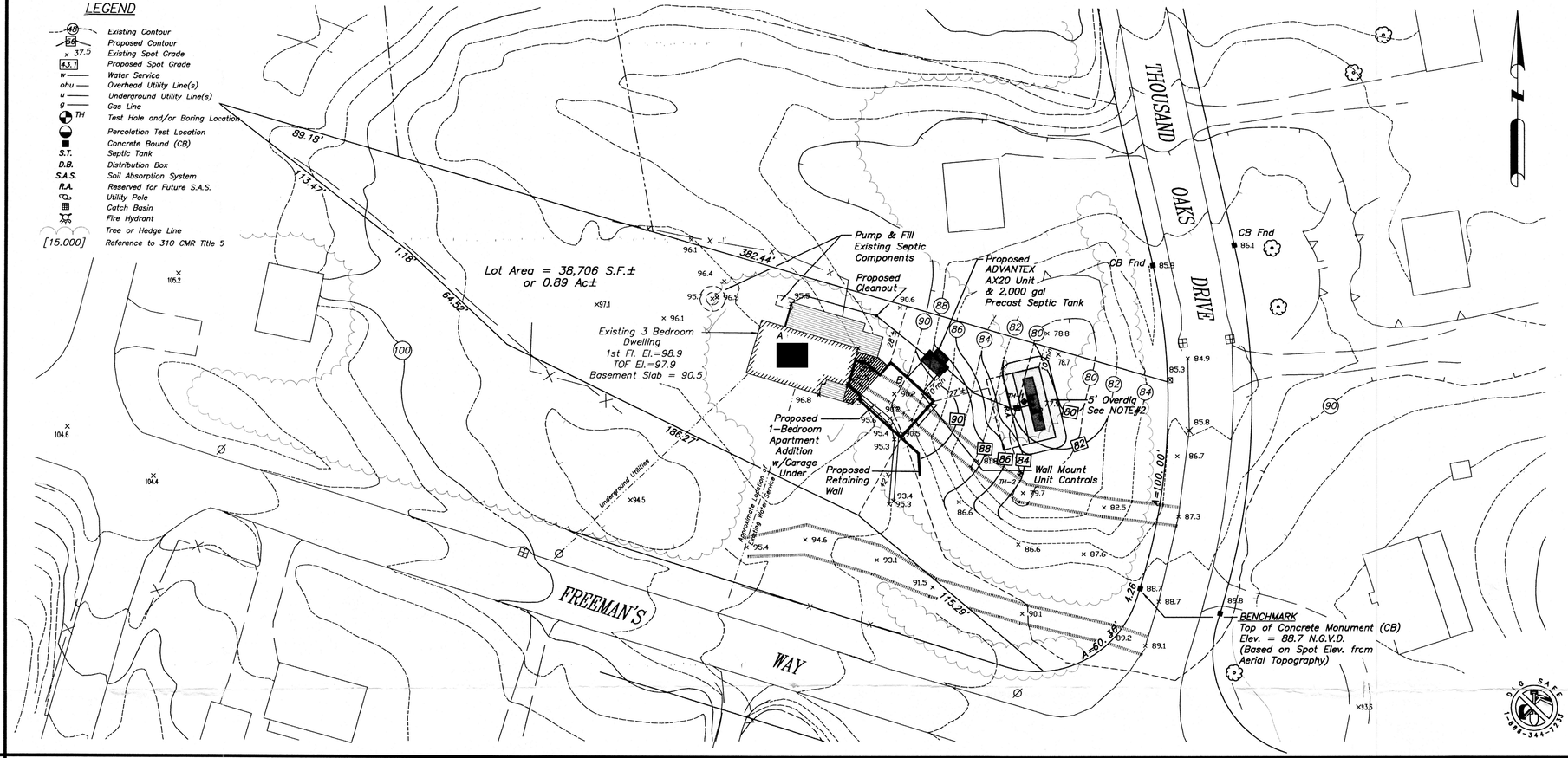
Material to be removed SEE NOTE #2

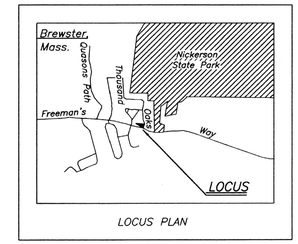
Representative of Approving Authority: Sherrie McCullough, Brewster Board of Health
Soil Evaluator: David A. Clark, P.E. – Clark Engineering
Percolation Rate:
#1 – <2 min. per inch in Coarse Sand
#2 – <2 min. per inch in Coarse Sand
NO Water Encountered.

Approximate high groundwater elevation 30.0, based upon USGS monitoring well BMW–21.

LEGEND

- (40) Existing Contour
- 58 Proposed Contour
- x 37.5 Existing Spot Grade
- 43.7 Proposed Spot Grade
- w —— Water Service
- ohu —— Overhead Utility Line(s)
- u —— Underground Utility Line(s)
- g —— Gas Line
- TH Test Hole and/or Boring Location
- Percolation Test Location
- Concrete Bound (CB)
- S.T. Septic Tank
- D.B. Distribution Box
- S.A.S. Soil Absorption System
- R.A. Reserved for Future S.A.S.
- Utility Pole
- Catch Basin
- Fire Hydrant
- Tree or Hedge Line
- [15.000] Reference to 310 CMR Title 5





LOCUS PLAN

ZONING REQUIREMENTS

Zone	R–R
Minimum Area	100,000 S.F.
Minimum Frontage	200 Ft.
Front Yard Setback	40 Ft.
Side and Rear Yard Setbacks	25 Ft.
Maximum Lot Coverage	N/A
Maximum Building Coverage	15 %

Assessors' Map 42, Parcel 73–21

OWNER OF RECORD:
Steven P. Harrigan
Eunice H. Harrigan
Certificate No. 123081
Land Court Plan 38321–B, Lot 21
Land Court Plan 37715–A, Lot 1

GENERAL NOTES

A.) Neither driveway nor parking areas are allowed over septic system unless H–20 components are used and system is vented.

B.) The designer will not be responsible for the system as designed unless constructed as shown. Any changes must be approved in writing by the designer.

C.) Contractor shall be responsible for verifying the location of all underground and overhead utilities prior to the commencement of work.

CONSTRUCTION NOTES

1.) All construction shall conform to the State Environmental Code, Title 5 and the requirements of the local Board of Health

2.) Topsoil, subsoil, peat, or other unsuitable or impervious material [15.255 (1)] shall be removed five (5) feet laterally in all directions beyond the outer perimeter of the soil absorption system to the depth of the naturally occurring pervious material(s) and replaced with fill material meeting the specifications of 310 CMR 15.255(3), [15.255(5)].

3.) Septic tank(s), grease trap(s), dosing chamber(s) and distribution box(es) shall be set on a level stable base which has been mechanically compacted. If component is placed in fill, proper compaction is required to ensure stability and to prevent settling; native ground with a 6 inch stone base is otherwise adequate [15.221(2)].

4.) Base aggregate shall consist of 3/4" to 1–1/2" double washed stone free of iron, fines and dust and shall be installed from below the crown of the distribution line to the bottom of the soil absorption system [15.247(1)]. Base aggregate shall be covered with a 2" layer of 1/8" to 1/2" double washed stone free of iron, lines and dust [15.247 (2)].

5.) From the date of installation of the soil absorption system until receipt of a Certificate of Compliance, the perimeter of the soil absorption system shall be staked and flagged to prevent the use of such area for all activities which might damage the system [15.246(2)].

6.) The Board of Health shall require inspection of all construction by an agent of the Board of Health and the designer and shall require such persons to certify in writing that all work has been completed in accordance with the terms of the permit and approved plans. 48 hours advance notice is requested.

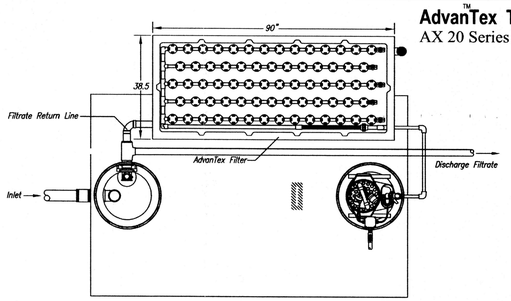
SYSTEM DESIGN CALCULATIONS

1.) Basis of Design
Number of Bedrooms: 4
Other:
2.) Design Daily Flow Sewage Flow: 440 GPD
3.) Septic Tank Capacity
Required: 880 Gal.
Provided: 2000 Gal.
4.) Soil Absorption System Capacity
Required: 440 GPD
Provided: GPD GPD*
5.) A garbage disposal is NOT permitted with this design

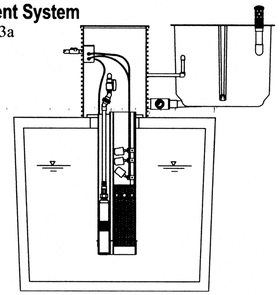
* [33.5 LF x (2'+12.83'+2') x 0.74 gpd/sf]
+ [2ends x (2' x 12.83') x 0.74 gpd/sf]

NOTE: Property is located within a DEP approved ZONE II where sewage flow is limited to 440 gpd/Ac unless a DEP approved I/A Technology is used for the removal of Nitrogen. The applicant proposes to use the ADVANTEX I/A system which is approved for provisional use by DEP. The proposed wastewater loading rate is 454 gpd/Ac which is less than the 660 gpd/Ac permitted by DEP.

AdvanTex™ Treatment System
AX 20 Series - Mode 3a



Top View



End View

ADVANTEX CONSTRUCTION NOTES

1. Process tank to be filled with water to a level predetermined by the designer and checked after 24 hours to determine absolute watertightness.

2. The process tank and treatment system shall be under an operation & maintenance contract for the life of the system in accordance with the DEP Provisional Use Approval Letter dated August 19, 2005, for the ADVANTEX AX20 Wastewater Treatment System.

3. All electrical work shall be done in accordance with the manufacturer's recommendations and procedures.

4. The Board of Health Disposal Works Permit does not authorize any electrical work. The contractor is required to use a licensed electrician and the electrician is required to obtain a separate permit from the electrical inspector for all electrical work related to the system.

5. The ADVANTEX Treatment System shall be installed by an authorized installer or overseen by Wastewater Technologies, Inc. personnel.

6. The VERICOMM Control Panel requires at a minimum a single 30 amp service with a preferred 2 circuits including a 10 amp and 30 amp circuit separating the pumps and alarm circuits. The VERICOMM Control Panel also requires connection to the household phone service.

7. The VERICOMM Control Panel should be placed in full view of the ADVANTEX Treatment System and no more than 50 feet from the system.

8. The start–up of the ADVANTEX Treatment System must be performed by Wastewater Technologies, Inc. or other Orenco authorized service provider. At the time of start–up there shall be water in the process tank to a level sufficient to just cover the filtrate return splitter ball valve.

For equipment ordering & questions contact:

WASTEWATER TECHNOLOGIES, INC
Toll Free (877) 212–3219
Fax (802) 893–6605
www.wastewatertechnologies.com

ADVANTEX TREATMENT SYSTEM

The ADVANTEX Treatment System designed for this site includes a 3 year warranty which requires the system be properly installed by an authorized installer and that the system be covered by a 3 year maintenance contract offered by an authorized service provider.

The ADVANTEX Treatment System is designed to provide nitrogen reduction. There are a number of factors that impact the environmental conditions that enhance or severely hamper the biological reduction of nitrogen. These include temperature, alkalinity, adequate carbon, pH & toxins. In addition to the flow and strength limits listed, cleaning practices and cleaning chemicals must be controlled to prevent toxins from inhibiting the biological nitrogen reduction. This system requires that a land phone line be maintained at all times at the residence to allow for remote telemetry.

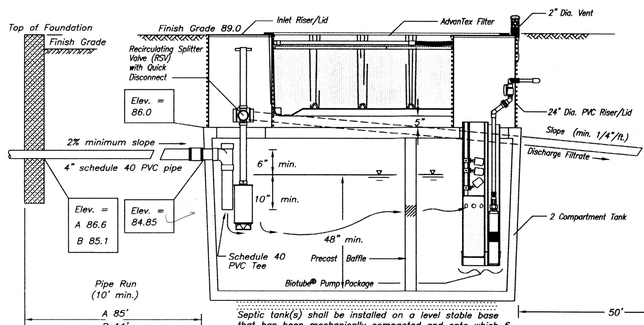
Influent Limits		Effluent Limits	
CBOD5	< 150 mg/l	CBOD5	< 30 mg/l
TSS	< 90 mg/l	TSS	< 30 mg/l
TN	< 65 mg/l	TN	< 19 mg/l
ALK	> 200 mg/l		
FOG	< 20 mg/l		

4/7/06

COMMONWEALTH OF MASSACHUSETTS
DAVID A. CLARK
CIVIL
No 41785
REGISTERED PROFESSIONAL ENGINEER

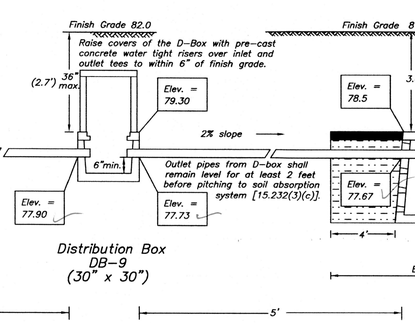
PROFILE OF SYSTEM

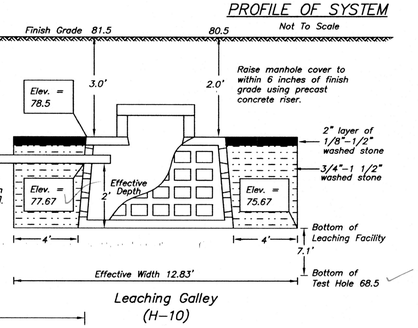
Not To Scale

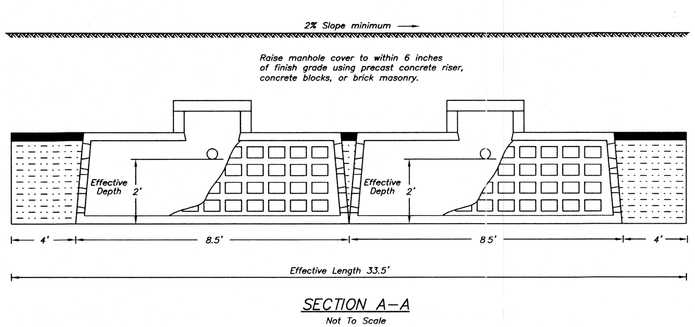


Septic tank(s) shall be installed on a level stable base that has been mechanically compacted and onto which 6 inches of crushed stone has been placed [15.228(1)].

2000 gallon ADVANTEX Septic Tank (H–10)







SECTION A–A
Not To Scale

CLARK ENGINEERING LLC
156 Crowell Road Suite B, Chatham, MA. 02633
Tel.: (508) 945–5454; Fax.: (508) 945–5458

SEWAGE DISPOSAL SYSTEM PLAN

Rev. #	Description of Revision	Date
1	Added deep observation hole results,	
	overdig, and ADVANTEX	
	construction notes.	12/19/05

Date: 12–02–2005
Scale: 1" = 30'
Drawing No.: 0553010A
Sheet No.: 1 of 1

I/A System Sample Report History

[redacted]

Barnstable County Department of Health and Environment
P.O. Box 427, Barnstable, MA 02630

Effluent Sample Results

Date	TN	Nitrate	Nitrite	TKN	BOD5	TSS	pH
10/31/2008	0.7					4	
11/10/2016	6.7				7.5		6.8
03/29/2017	6.9					5.9	
12/13/2017	4.029	2.8	0.099	1.13			
04/02/2018				2.03	54	11	
10/10/2018	13.86	4.2	4.2	5.46	3.6	41	
05/29/2019	32.83	3	0.23	29.6	67	15	
09/09/2019	28.87	17	1.9	9.97	32	5.1	
12/16/2019	5.63	4.3		1.33	12	8	
12/26/2019	3.81	2.6		1.21	6.9		
06/04/2020	24.1	9.4	1.6	13.1	76	11	
01/12/2021	5.159	2.5	0.089	2.57	23		
03/03/2021	15.8	5.5	0.31	9.99	47	26	
08/10/2021	24.77	1.3	4.87	18.6	28	10	
04/26/2022	6.09	3.2	0.23	2.66	19	6.5	
11/17/2022	28.64	0.33	0.21	28.1	22	7.4	
Median	**6.9**	**3.1**	**0.27**	**5.46**	**23**	**9**	**6.8**

Influent Sample Results

No Influent Sample Results

Town of Brewster

BREWSTER, MASSACHUSETTS 02631 – 1898

OFFICE OF:
BOARD OF HEALTH
(508) 896-3701 EXT.#20

June 9, 2000

Robin W. Wilcox, PLS
Sweetser Engineering
P.O.Box 713
South Dennis, MA 02660

[redacted]

Dear Mr. Wilcox:

On June 6, 2000, the Board of Health voted to approve the following variances from the State Environmental Code, Title 5 and the Brewster Board of Health regulations:

15.211(1) Distances: To allow the SAS to be 51 feet from the existing well and 2 feet from a property line. with the conditions that the well be tested annually for the standard tests and Town water be hooked up when it becomes available.

2. 15.248: to allow no reserve area.

The variances are granted with the following conditions:

1. The well must be tested annually for the standard tests and Town water must be hooked up when it becomes available.

2. Inspection reports regarding the operation of the Singular unit must be submitted to the Health Dept.

3. A time/flow meter must be installed.

Because the property is in an Environmentally Sensitive Area, the following conditions will apply:

1. The size of the system will be based upon the Brewster Board of Health policy which defined bedrooms: and

2. if the property in question is a rental, the owner must agree to limit the number of occupants based on the size of the system; and

3. the owner must agree to install water saving devices on all fixtures; and

4. there will be no addition of the number of bedrooms in

residential structures and, for all other structures, no addition of floor space or number of rooms which will increase the volume of flow into the system.

Enclosed please find a Certificate of Granting of Variance form which must be properly recorded in the Registry of Deeds. Please submit a copy of the recorded document to this office.

Please be advised that, in accordance with 310 CMR 4.0, you must properly apply to DEP to activate their review of this Board of Health action. The Department of Environmental Protection will advise you of the beginning of the thirty (30) day review timeframe and comment thereafter.

If you should have any questions, please do not hesitate to contact the Health Department at 508-896-3701 ext. 20.

Sincerely,

Nancy Ellis Ice

Nancy Ellis Ice, C.H.O., R.S.
Health Director

/nei

c: [redacted]
Con. Com.
Brian Dudley, DEP Certified 7000 0600 0022 1886 4026
Paul Hicks, Water Supt.

Town of Brewster

2198 MAIN STREET
BREWSTER, MASSACHUSETTS 02631-1898

(508) 896-3701
FAX (508) 896-8089

Health Department
Nancy Ellis Ice

March 13, 2003

Hollister S. Siegmund
Siegmund Environmental Services, Inc.
49 Pavilion Avenue
Providence, RI 02905

[redacted]

Dear Mr. Siegmund:

On March 4, 2003, the Board of Health reviewed your letter dated January 6, 2003 requesting that the quarterly testing of the Singulair Wastewater Treatment system be discontinued.

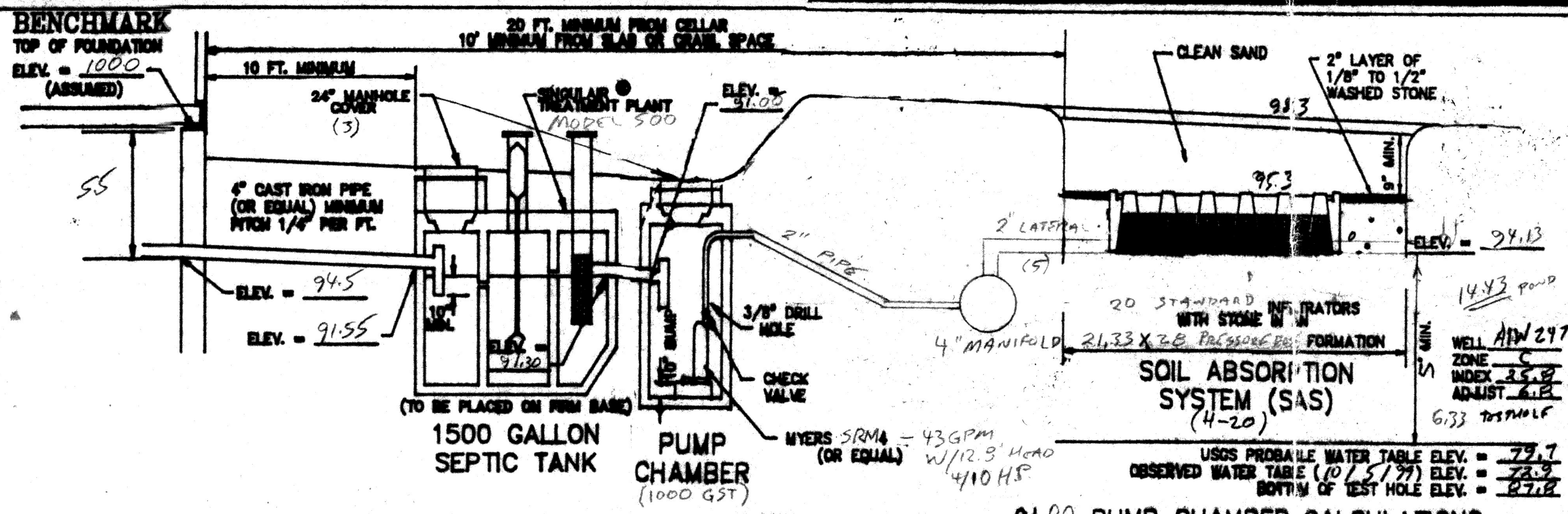
The Board voted that the system be tested again on June 1 and September 1 for the next four years for BOD and Nitrogen and after four years, to return before the Board of Health.

If you have any questions, do not hesitate to contact this office.

Sincerely:

Nancy Ellis Ice

Nancy Ellis Ice, CHO, RS
Health Director



USGS PROBABLE WATER TABLE ELEV. = 79.7
OBSERVED WATER TABLE (10/5/99) ELEV. = 73.9 (POND)
BOTTOM OF TEST HOLE ELEV. = 87.8

SOIL TEST

DATE OF SOIL TEST Oct. 5, 1999
SOIL TEST DONE BY T. DUMAS & R. WILCOX
WITNESSED BY T. McINERNEY

OBSERVATION HOLE 1 ELEV.= 98.3
PERCOLATION RATE <2 MIN./INCH AT 60 INCHES

DEPTH	HORIZ	TEXTURE	COLOR	MOTT.	OTHER
0-6	O/A	SANDY LOAM	10YR3/1		ROOTS
6-20	B	LOAMY SAND	10YR5/8		ROOTS
20-40	C_1	MEDIUM SAND	10YR6/4		
40-120	C_2	MEDIUM/FINE SAND	2.5Y6/4		

NO WATER ENCOUNTERED AT 120" ELEV. = 88.3

OBSERVATION HOLE 2 ELEV.= 97.8
PERCOLATION RATE <2 MIN./INCH AT 54 INCHES

DEPTH	HORIZ	TEXTURE	COLOR	MOTT.	OTHER
0-7	O/A	SANDY LOAM	10YR3/2		ROOTS
7-30	B	LOAMY SAND	10YR6/8		ROOTS
30-120	C	MEDIUM SAND	2.5Y6/4		

NO WATER ENCOUNTERED AT 120" ELEV. = 87.8

SEWAGE DISPOSAL SYSTEM PROFILE
NOT TO SCALE

ELEV. AT INVERT INLET	91.00
ELEV. AT ALARM ON	88.50
ELEV. AT PUMP ON	88.39
ELEV. AT PUMP OFF	87.83
BOTTOM OF INSIDE PUMP CHAMBER	87.0
BOTTOM OF OUTSIDE PUMP CHAMBER	86.75

PUMP CHAMBER CALCULATIONS:

REQUIRED FLOW PER CYCLE .25 X 440 = 110 GAL./CYCLE
VOLUME PER CYCLE 110 GAL./CYCLE /7.48 GAL./CU. FT. = 14.71 CU. FT./CYCLE
VOLUME OF WATER IN PIPE 3.14 X 0.00694 X 220 FT. = 4.79 CU. FT.
TOTAL MINIMUM VOLUME PER CYCLE 19.50 CU. FT.
DISCHARGE 19.50 CU. FT. / 34.67 CU.FT./FT. = 0.56 FT. (1000 G.S.T.)
STORAGE CAPACITY (440 GAL./DAY /7.48 GAL./CU.FT./34.67 CU.FT./FT. = 1.70 FT.
1.70 REQUIRED 2.75 PROVIDED

LEGEND:

EXISTING SPOT ELEVATION
EXISTING CONTOUR
FINAL SPOT ELEVATION
FINAL CONTOUR
SOIL TEST LOCATION
UTILITY POLE
TOWN WATER
CATCH BASIN
GAS LINE
CESSPOOL C.P.
CLEANOUT C.O.

BUCYANCY CALCULATIONS: N/A

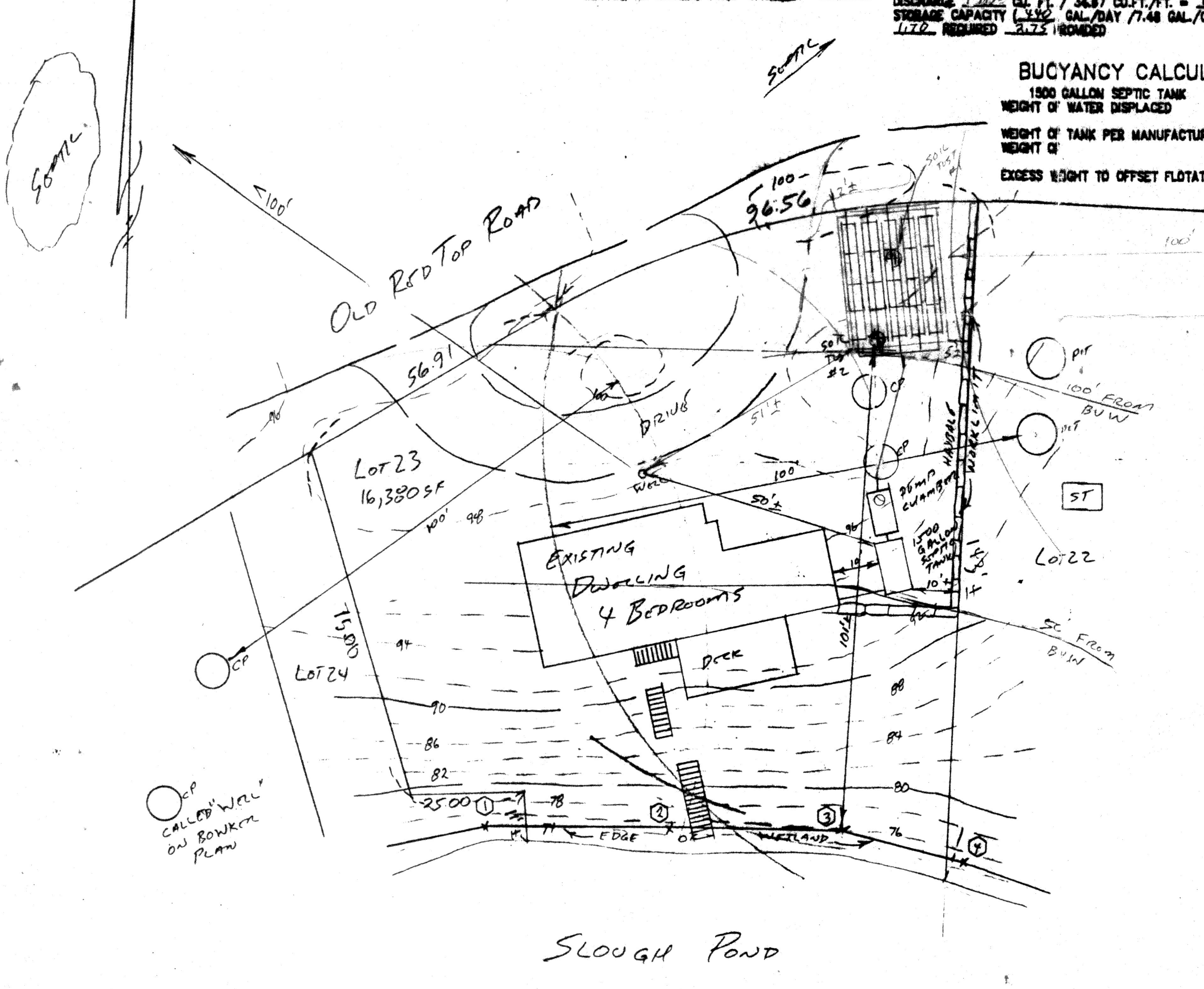
1500 GALLON SEPTIC TANK		1000 GALLON PUMP CHAMBER	
WEIGHT OF WATER DISPLACED	LBS.	WEIGHT OF WATER DISPLACED	LBS.
WEIGHT OF TANK PER MANUFACTURER		WEIGHT OF TANK PER MANUFACTURER	
WEIGHT OF		WEIGHT OF	
EXCESS WEIGHT TO OFFSET FLOTATION		EXCESS WEIGHT TO OFFSET FLOTATION	

DESIGN CALCULATIONS

NUMBER OF BEDROOMS	4	
GARBAGE DISPOSAL UNIT	NO	
TOTAL ESTIMATED FLOW (110 GAL./BR./DAY X 4 BR.)	440	GAL./DAY
REQUIRED SEPTIC TANK CAPACITY	880	GAL.
ACTUAL SIZE OF SEPTIC TANK	1500	GAL.
SOIL CLASSIFICATION	I	
DESIGN PERCOLATION RATE	5.5	MIN./IN.
EFFLUENT LOADING RATE	0.74	GAL./DAY/S.F.
LEACHING AREA (21.33 X 28)	597.2	SQ. FT.
LEACHING CAPACITY (AREA X RATE) 597.2 X 0.74	441.9	GAL./DAY
RESERVE LEACHING CAPACITY	NONE	GAL./DAY

NOTES:

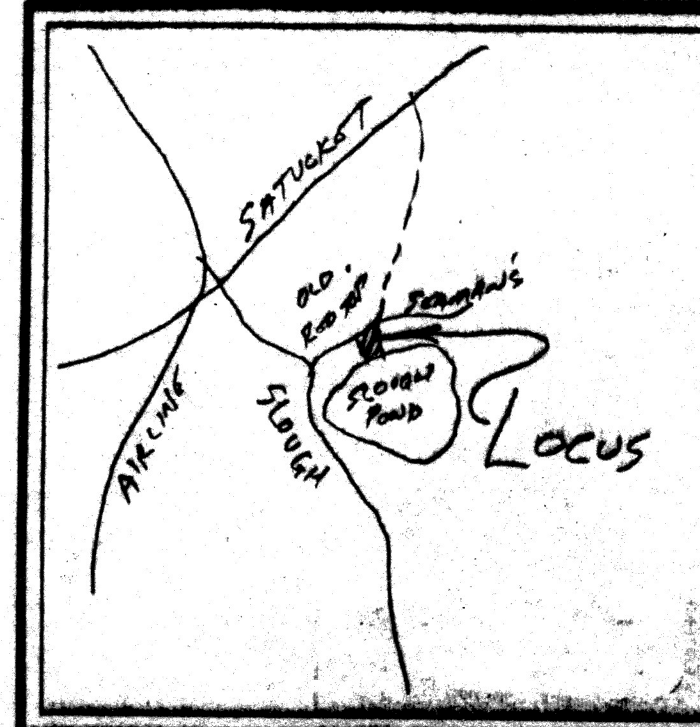
1. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO D.E.P. TITLE 5 AND THE TOWN OF BREWSTER RULES AND REGULATIONS FOR THE SUBSURFACE DISPOSAL OF SEWAGE.
2. ALL COVERS TO SANITARY UNITS SHALL BE BROUGHT TO WITHIN 6" OF FINISHED GRADE.
3. ALL COMPONENTS OF THE SANITARY SYSTEM SHALL BE CAPABLE OF WITHSTANDING H-10 LOADING UNLESS THEY ARE UNDER OR WITHIN 10 FT. OF DRIVES OR PARKING AREAS. H-20 LOADING SHALL BE USED UNDER OR WITHIN 10 FT. OF DRIVES OR PARKING AREAS.
4. ANY MASONARY UNITS USED TO BRING COVERS TO GRADE SHALL BE MORTARED IN PLACE.
5. NO DETERMINATION HAS BEEN MADE AS TO COMPLIANCE WITH DEEDED OR ZONING REGULATIONS. OWNER / APPLICANT IS TO OBTAIN SUCH DETERMINATION FROM APPROPRIATE AUTHORITY.
6. UTILITIES SHOWN ARE APPROXIMATE ONLY, EXCAVATION CONTRACTOR IS TO CALL "DIG-SAFE" AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO COMMENCING WORK ON SITE.
7. CONTRACTOR IS TO VERIFY GRADES AND ELEVATIONS AS WELL AS SITE CONDITIONS PRIOR TO COMMENCING WORK ON SITE. ANY VARIATION IS TO BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER IMMEDIATELY.
8. PARCEL IS IN FLOOD ZONE C
9. LOT IS SHOWN ON ASSESSORS MAP 38 AS PARCEL 116
10. PUMP AND ALARM ARE TO BE ON SEPERATE CIRCUITS.
11. ALARM IS TO BE BOTH AUDIO AND VISUAL.
12. SEPTIC TANK AND PUMP CHAMBER ARE TO BE TESTED TO INSURE THAT THERE IS NO INFILTRATION OF GROUNDWATER INTO FACILITIES.
13. EXISTING CESSPOOLS ARE TO BE PUMPED AND REMOVED.
14. ADJACENT WELL AND SEPTIC LOCATIONS FROM PLANS SUPPLIED BY THE BREWSTER BOARD OF HEALTH.
15. VARIANCES TO TITLE 5 AND BREWSTER REGULATIONS
A. SOIL ABSORPTION SYSTEM LESS THAN 100' FROM WELL.
B. NO RESERVE AREA.
C. SOIL ABSORPTION SYSTEM LESS THAN 10' FROM LOT LINE.



T. A. DUMAS No. 619 REGISTERED SANITARIAN
COMMONWEALTH OF MASSACHUSETTS

APPROVED: BOARD OF HEALTH

9/8/00 — DATE
AGENT



LOCATION MAP

PROPOSED SEPTIC DESIGN
[redacted]

PROJECT LOCATION
[redacted]

SWEETSER ENGINEERING
235 GREAT WESTERN ROAD
P.O. BOX 713
SOUTH DENNIS, MASS. 02660
508-398-3922

DATE JAN 10, 2000
SCALE 1" = 20'
REVISED MAY 8, 2000
JOB NO. 4622-00
REVISED
SHEET 1 OF 2

M38 L116 P00-48

I/A System Sample Report History

[redacted]

Barnstable County Department of Health and Environment
P.O. Box 427, Barnstable, MA 02630

Effluent Sample Results

Date	TN	Nitrate	Nitrite	TKN	CBOD5	TSS	pH	Alkalinity
02/24/2005	62.7	44.4	0.91	17.4	15.9	56.7	6.7	12.3
05/26/2005	61.4	43.1	0.43	17.9	13.1	17	6.7	8.4
08/18/2005	20.9	14.7	0.36	5.88	7.1	24	6.91	36
11/29/2005	34.5	28.2	1	8.12	6.4	25	6.7	11.5
02/28/2006	51.8	15.5	17	19.3	16.5	26.7	6.7	10.7
05/24/2006	28.3	1	1	28.3	34.8	12	6.95	169
11/27/2006	91.6	64.2		27.4	4.95	9	6.95	
03/14/2007	86	9.31	7.26	69.4	20.1	1	8.4	294
09/18/2007	105.3	60	0.28	45	15	77	7.05	39
12/17/2007	97.2	52	0.16	45	36	67	7.45	74
04/16/2008	63.9	35	0.91	28	35	51	6.93	42
06/20/2008		1.3	1	48	43	110		120
07/09/2009	86.2	0.12	0.08	86	80	41		380
01/14/2010	42.08	0.05	0.025	42	80			190
04/15/2010	76.08	0.05	0.025	76	160	38		320
07/12/2010	11.57	8.5	0.17	2.9	1	2.5		36
10/05/2010	11.1	9.1	0.1	1.9	1	7.4		56
01/11/2011	89.34	0.31	0.025	89	210	52		350
04/06/2011	110.07	0.01	0.06	110		66		390
07/18/2011	11.68	6.8	0.58	4.3	65	7		
10/06/2011	8.81	3.6	0.21	5	7.8	36		49
01/10/2012	27.78	20	0.18	7.6	5.3	12		6.3
04/10/2012	20.26	14	0.16	6.1	3	2.5	6.5	36
07/09/2012	9.63	5.5	0.13	4	1	16		55
10/09/2012	8.03	5.5	0.025	2.5	8.5	2.5		56
01/09/2013	17.97	11	1	5.97	3.9	2.5		25.2
04/11/2013	35.4	20	1.8	13.6	2.5	2.5		17
05/08/2013	27.3	20	1	6.3				
07/02/2013	18.61	11	0.36	7.25	3.4	2.5		41.1
10/03/2013	10.64	7.2	0.12	3.32	1	2.5		44.9
01/14/2014	13.07	9.8	0.44	2.83	5.5	2.5		35.4
04/07/2014	23.95	6.1	0.25	17.6	21	27		85.2
07/02/2014	9.63	5.9	0.13	3.6		5.2	7	40.9
10/06/2014	4.35	1.2		3.15	3	43	7	68.4

Date	TN	Nitrate	Nitrite	TKN	CBOD5	TSS	pH	Alkalinity
01/07/2015	20.29	14	0.19	6.1		30		24.1
04/07/2015	16.34	13	0.72	2.62	6.8	9		22
07/07/2015	12.413	7.2	0.073	5.14				39.6
10/07/2015	12.77	7.6	0.23	4.94	3.1	8.2		38.4
01/12/2016	12.25	7.7	0.67	3.88	5.2			39.5
04/13/2016	14.94	12	0.2	2.74	8.2		6.5	28.2
07/05/2016	12.79	9.4	0.32	3.07				29.7
10/11/2016	17.93	7.2	0.23	10.5	12	46		41.5
01/11/2017	40.62	23	0.22	17.4	9.1	26		8.8
03/29/2017		14		2.66				
04/06/2017	19.76	17	0.23	2.53	23	8		14.8
07/13/2017	9.69	6.4	0.19	3.1		100	6.5	46.1
10/26/2017	2.86	0.92		1.94				78.3
07/16/2018	5.31	0.95		4.36		7.3	7	93.2
01/08/2019	9.85	7.6		2.25		32		41.9
07/09/2019	16.54	13	0.65	2.89	3.2	11	7	45.3
01/30/2020	13.5	12	0.15	1.35				47.5
07/13/2020	8.21	6.4	0.1	1.71			7.86	76.4
01/12/2021	6.714	5.2	0.084	1.43	4.7		7.71	82.2
07/14/2021	79.279	52	0.079	27.2	5.2	82	5.5	
01/10/2022	7.3	5.9		1.4		21	7.75	87.4
07/25/2022		46	0.079	33.7		220	5.63	
01/17/2023	34	34				7.8	6.11	3.28
Median	**18.29**	**9.31**	**0.22**	**5.925**	**7.8**	**19**	**6.94**	**41.9**

Influent Sample Results

Date	TN	Nitrate	Nitrite	TKN	BOD5	TSS	Alkalinity
04/16/2008	80.1	0.05	0.025	80	270	26	320
04/07/2014							
07/02/2014							
Median	**80.1**	**0.05**	**0.025**	**80**	**270**	**26**	**320**

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

MITT ROMNEY
Governor

KERRY HEALEY
Lieutenant Governor

ELLEN ROY HERZFELDER
Secretary

ROBERT W. GOLLEDGE, Jr.
Commissioner

September 23, 2003

Paul Mullen
P.O. Box 159
Brewster, MA 02632

Re: Application for BRP WP 61b
INSTALLATION OF ALTERNATIVE SYSTEMS FOR PROVISIONAL USE
Technology: Aquapoint Bioclere
DEP Facility ID: bcp100
[redacted]

Dear [redacted]:

The Department has received your submittal to install a Bioclere on-site sewage treatment system, to allow for the construction of a two-bedroom house at the above referenced location. The submittal included written notification, dated July 31, 2003, that the Brewster Board of Health approved the proposed Bioclere system.

The submittal includes a plan prepared by Felco Inc., entitled, "Site & Sewage Plan Lot 12 Long Pond Road Brewster, MA", dated June 11, 2003 with latest revisions dated June 28, 2003. David Lajoie, Registered Sanitarian, stamped the plan.

The Department has reviewed this submittal for approval in accordance with 310 CMR 15.000 and the Bioclere Renewal of Provisional Use Approval letter issued on April 4, 2000. Based on its review of the application the Department has determined that the above referenced location with a two-bedroom house, located within a Zone II, will be a suitable testing facility to evaluate nitrogen reduction under the Provisional Use Approval for the Bioclere system.

As part of the Provisional Use Approval of this alternative system for nitrogen reduction, the Department requires the owner and all subsequent entities to comply with the following conditions:

1. The System owner shall comply with all requirements of the April 4, 2000 Department's Renewal of Provisional Use Approval for the Bioclere system, the terms and conditions of this System approval letter and 310 CMR 15.000, as they may be amended from time to time. A copy of the Provisional Use Approval is enclosed. In the event of a conflict between the terms

and conditions of this System Approval and the Provisional Use Approval, this Approval shall be controlling.

2. The cover of the distribution box shall be installed and maintained at grade to facilitate sampling and monitoring of the effluent.

3. The owner shall have the System maintained by a certified operator in accordance with Section IV of the Provisional Use Approval. Additionally, the owner must submit a copy of the "DEP Approved Inspection and O&M Form for Title 5 I/A Treatment and Disposal Systems" and Bioclere O&M checklist to the Department and the Brewster Board of Health within 45 days of each inspection. A certified operator of an appropriate grade must complete each form. Copies of these forms are enclosed.

4. At least 30 days prior to System startup, the owner shall submit to the Department and the Brewster Board of Health a copy of an operation and maintenance agreement. The initial operation and maintenance agreement shall be with the System manufacturer (Aquapoint) or its qualified subcontractor and shall be for no less than one year. Subsequent operation and maintenance agreements shall be for no less than one year and shall be with any person or firm qualified to provide services consistent with the System's specifications, the operation and maintenance requirements specified by the designer and those specified by the Department in this approval letter. The operation and maintenance agreement shall contain the name of the System operator who will operate the System, who shall be an appropriate Massachusetts certified operator, or operators as required by 257 CMR 2.00. Any time the operator is changed, the owner shall notify the Department and the Brewster Board of Health in writing within seven days of such change.

5. Prior to the Brewster Board of Health's issuance of a Certificate of Compliance, the owner shall submit to the Department and the Board of Health a copy of a sampling agreement with the Company for the first year of operation. Subsequent sampling agreements shall be for no less than one year. The following effluent sampling and testing schedule and effluent limits apply for year round residential use:

Parameter	**Frequency**	**Effluent Limit**
pH	quarterly	6 to 9
Carbonaceous biochemical oxygen demand ($CBOD_5$)	quarterly	≤ 30 mg/L[1]
Total suspended solids (TSS)	quarterly	≤ 30 mg/L
Total nitrogen (TKN +NO2+NO3)	quarterly	≤ 19mg/L
Alkalinity	quarterly	NA

1. mg/L = milligrams per liter

A. After two years of monitoring and at the written request of the owner, the Department may reduce the monitoring requirements.

B. For seasonal residential use where the residence is occupied six months or less per year, the effluent shall be monitored twice per season. The first time 45 days after occupancy and the second time within two weeks prior to System shutdown. The following

parameters shall be monitored: pH, $CBOD_5$, TSS, TN, and alkalinity. After four seasons of monitoring and at the written request of the owner, the Department may reduce the monitoring requirements.

C. **The owner shall submit all monitoring data to the Department within 45 days of each sampling date at:**

Department of Environmental Protection
Watershed Permitting Program
One Winter Street-6th Floor
Boston, MA 02108
Attn: Title 5 Program

6. The owner shall record in the appropriate registry of deeds a notice that discloses the existence of this Provisional Use approved alternative system and the involvement of the Department in the approval of the System. Prior to the Board of Health's issuance of a Certificate of Compliance for the System, the owner shall both record the notice in the registry and submit a certified registry copy of said notice showing book and page number to the Department and the Board of Health.

7. The owner shall also record in the appropriate registry of deeds a deed restriction granted to and approved by the Board of Health limiting the total number of bedrooms, as "bedroom" is defined in Title 5, to two on the property served by the system. Prior to the Board of Health's issuance of a Certificate of Compliance for the System, the owner shall both record the restriction in the registry and submit a certified registry copy of said restriction showing book and page number to the Department and the Board of Health.

8. The owner shall submit to the Department a copy of the Certificate of Compliance for the System within 14 days of the Board of Health's issuance of the Certificate of Compliance.

Should you have any questions regarding this matter, please do not hesitate to contact Ron White, of my staff, at (617) 292-5658.

Sincerely,

Sharon M. Pelosi, Director
Watershed Permitting Program

Enclosures (3)

Cc: Brewster Board of Health
DEP/SERO, Brian Dudley
Felco Inc., P.O. Box 1366, Orleans, MA 02653
Aquapoint, 241 Douchaine Boulevard, New Bedford, MA 02745-1209

Town of Brewster

2198 MAIN STREET
BREWSTER, MASSACHUSETTS 02631-1898

(508) 896-3701
FAX (508) 896-4358

Health Department
Nancy Ellis Ice

February 13, 2018

[redacted]

Dear [redacted]

On February 7, 2018, the Brewster Board of Health voted to change the inspection and sampling of the Bioclere innovative/alternative technology from four times a year to two times per year.

If you have any questions, do not hesitate to contact this office.

Sincerely,

Nancy Ellis Ice

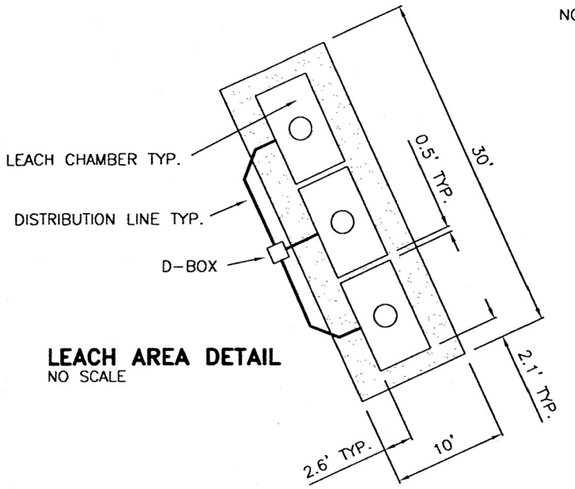
Nancy Ellis Ice, CHO, RS
Health Director

Cc: Ed Rooney, Aquapoint
Bennett Environmental Associates, Inc.
Emily Michele Olmsted, Barnstable County Health and Environment Department

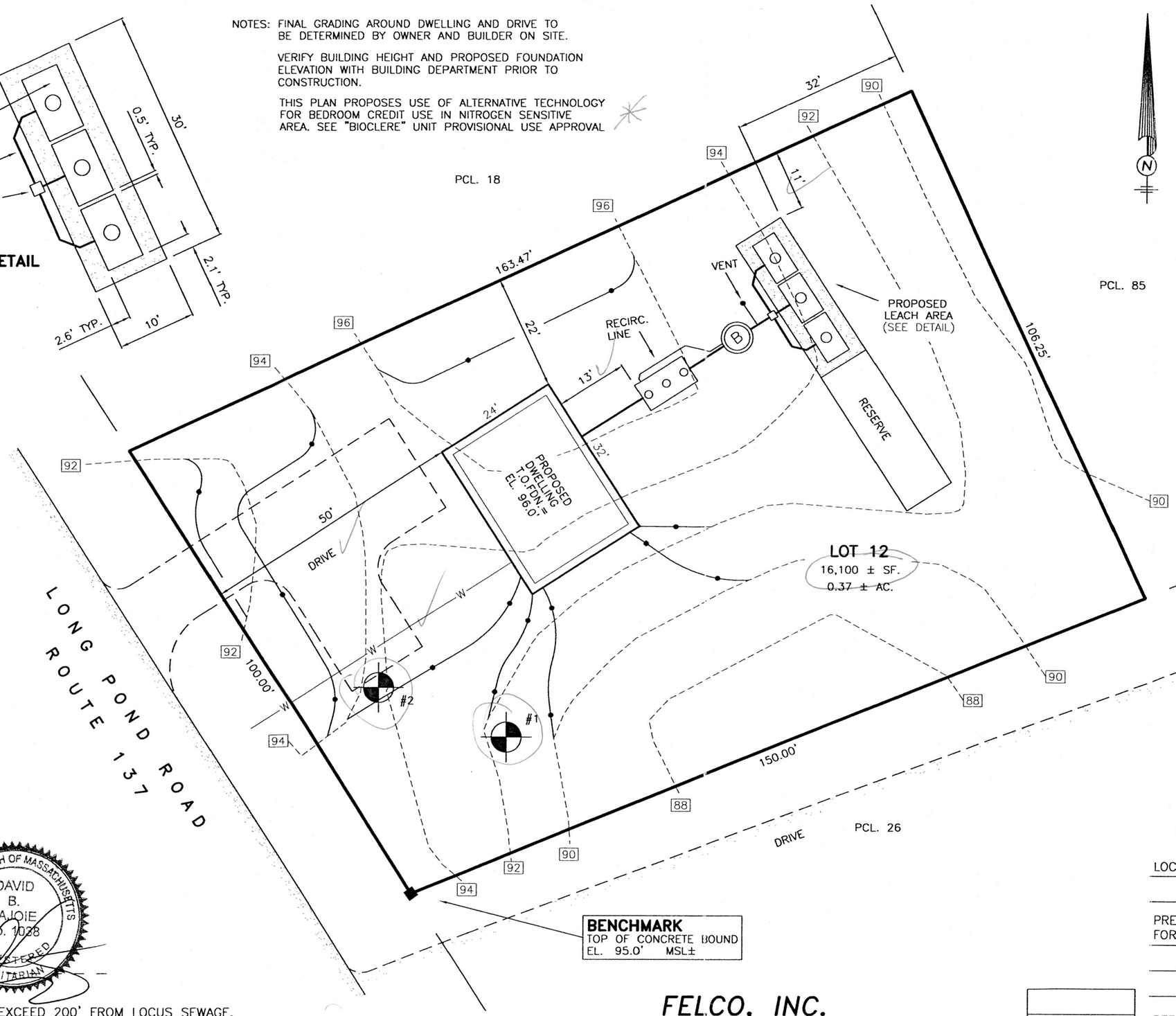
NOTES: FINAL GRADING AROUND DWELLING AND DRIVE TO BE DETERMINED BY OWNER AND BUILDER ON SITE.

VERIFY BUILDING HEIGHT AND PROPOSED FOUNDATION ELEVATION WITH BUILDING DEPARTMENT PRIOR TO CONSTRUCTION.

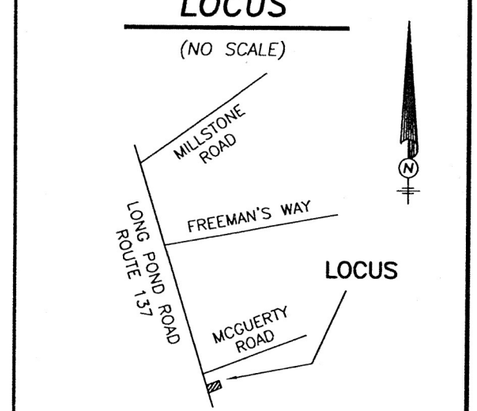
THIS PLAN PROPOSES USE OF ALTERNATIVE TECHNOLOGY FOR BEDROOM CREDIT USE IN NITROGEN SENSITIVE AREA. SEE "BIOCLERE" UNIT PROVISIONAL USE APPROVAL



LEACH AREA DETAIL
NO SCALE



BENCHMARK
TOP OF CONCRETE BOUND
EL. 95.0' MSL±



LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- —W— WATER LINE
- TEST HOLE
- SEPTIC TANK
- (B) "BIOCLERE" TREATMENT UNIT

COMMONWEALTH OF MASSACHUSETTS
DAVID B. LAJOIE
No. 10238
REGISTERED SANITARIAN

ALL WELLS NOT SHOWN EXCEED 200' FROM LOCUS SEWAGE.
VERIFY ZONING AND UTILITY SETBACK DIMENSIONS PRIOR TO CONSTRUCTION.
THIS PLAN IS PREPARED FOR COMPLIANCE WITH 310 CMR 15.000 ONLY AND SHALL NOT BE USED FOR ANY OTHER PURPOSE.

FELCO, INC.
ENGINEERING — LAND SURVEYING
P.O.BOX 1366 ORLEANS, MA 02653
(508) 255-8141 (FAX) 255-2954

7/23/03

SITE & SEWAGE PLAN

LOCUS: [redacted]
BREWSTER, MA

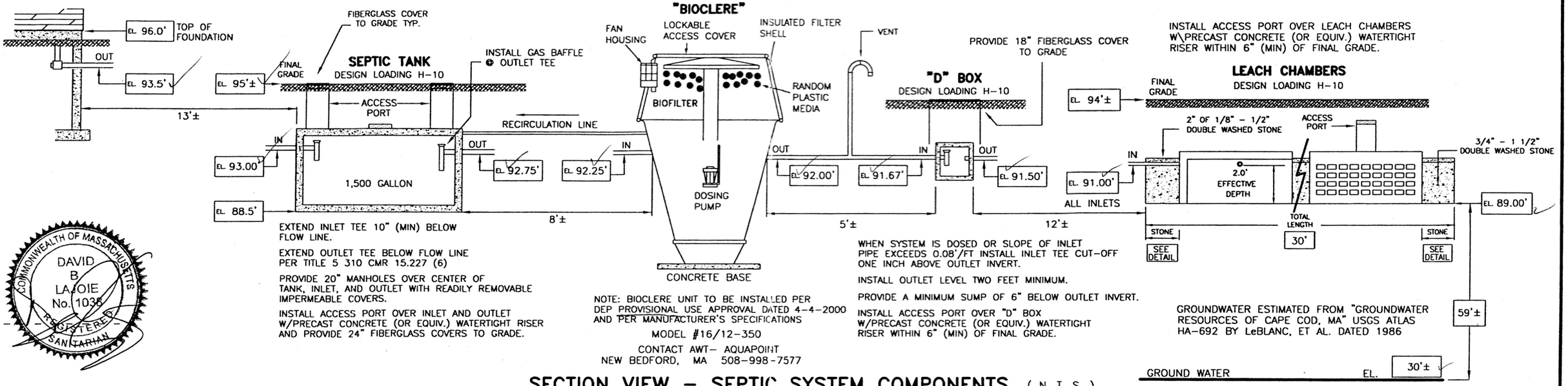
PREPARED FOR: [redacted]
P.O. BOX 375
CENTERVILLE, MA 02632

REFERENCE: ASSR'S MAP 47 PARCEL 114

SCALE : 1"=20'	DATE : 6-11-2003
SHEET No. 1 OF 2	JOB No. 03040

REVISIONS

M47L114 03-85



COMMONWEALTH OF MASSACHUSETTS
DAVID B LAJOIE No. 10361
REGISTERED SANITARIAN

SECTION VIEW - SEPTIC SYSTEM COMPONENTS (N. T. S.)

DEEP OBSERVATION HOLE LOG

1. EL. 91.5' DATE: 3-13-03 SOIL EVALUATOR: A. CABRAL HEALTH DEPT. WITNESS: D. HANKS

DEPTH	LOWEST ELEVATION	HORIZON	TEXTURE	STRUCTURE	MOTTLING	CONSISTENCE
0.0'						
1.0'	90.5'	A	LOAMY SAND	NO	NO	LOOSE
3.0'	88.5'	B	LOAMY SAND	NO	NO	LOOSE
		C	MEDIUM SAND ✓ PERC @ 5' <2 MIN/IN	NO	NO	LOOSE
11.5'	80.0'					

2. EL. 94.2' DATE: 3-13-03 SOIL EVALUATOR: A. CABRAL HEALTH DEPT. WITNESS: D. HANKS

DEPTH	LOWEST ELEVATION	HORIZON	TEXTURE	STRUCTURE	MOTTLING	CONSISTENCE
0.0'						
1.0'	93.2'	A	LOAMY SAND	NO	NO	LOOSE
2.5'	91.7'	B	LOAMY SAND	NO	NO	LOOSE
		C	COARSE SAND ✓ PERC @ 6' <2 MIN/IN	NO	NO	LOOSE
10.5'	83.2'					

GENERAL NOTES

1. ALL CONTRACTORS AND/OR INSTALLERS ARE RESPONSIBLE FOR PROVIDING AND MAINTAINING A SAFE WORK AREA.
2. CONTRACTORS AND/OR INSTALLERS: VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
3. CONTRACTORS AND/OR INSTALLERS: VERIFY ALL WASTE LINE LOCATIONS PRIOR TO CONSTRUCTION.
4. CONSTRUCTION DETAILS TO BE IN ACCORDANCE WITH STATE SANITARY CODE 310 CMR 15.000 AND TOWN BOARD OF HEALTH REQUIREMENTS.
5. ELEVATION DATUM IS FROM [X] U.S.G.S. QUAD. MAP. [ ] N.G.V.D.
6. MUNICIPAL WATER IS AVAILABLE [X] YES [ ] NO
7. ANY ALTERATIONS TO DESIGN MUST BE APPROVED BY FELCO, INC. AND TOWN BOARD OF HEALTH.
8. ALL EXISTING SEWAGE TO BE PUMPED AND FILLED WITH CLEAN MEDIUM SAND.
9. SEPTIC TANKS, DOSING CHAMBERS, GREASE TRAPS, AND DISTRIBUTION BOXES SHALL BE INSTALLED WATERTIGHT.
10. WHEN SEPTIC TANK, DOSING CHAMBERS, GREASE TRAPS, AND DISTRIBUTION BOXES ARE PLACED IN FILL, PROVIDE A LEVEL STABLE BASE WHICH HAS BEEN MECHANICALLY COMPACTED. VIRGIN GROUND WITH A 6" CRUSHED STONE BASE IS OTHERWISE ADEQUATE.
11. GROUND COVER OVER SEPTIC SYSTEM COMPONENTS SHALL NOT EXCEED 36".
12. WHEREVER SEWER LINES MUST CROSS WATER SUPPLY LINES, BOTH PIPES SHALL BE CONSTRUCTED OF CLASS 150 PRESSURE PIPE OR EQUIV. AND SHALL BE PRESSURE TESTED TO ASSURE WATERTIGHTNESS.

DESIGN

FLOW DETERMINATION [2] BEDROOM DWELLING

GARBAGE GRINDER [X] NO [ ] YES

FLOW RATE = [220] GAL/DAY

SEPTIC TANK SIZING:

[220] x 2.0 = [440] GAL/DAY

USE: 1,500 GAL

LEACHING FACILITY CALCULATIONS:

PERCOLATION RATE IS < [5] MIN/INCH [1] CLASS

SIDEWALL (S.F.) = [160]
BOTTOM (S.F.) = [300]
x [0.74] = [340 ✓] GAL/DAY

USE: (3) 4.8' x 8.3' LEACH CHAMBERS W/ STONE AS SHOWN IN DETAIL = 30' LONG x 10' WIDE x 2' DEEP

660 GAL/DAY PER 40,000 S.F. = 0.0165 GAL/DAY/S.F.
16,100 S.F. (LOT 11 AREA) x 0.0165 = 266 GAL/DAY ALLOWED > 220 GAL/DAY REQUESTED

CONSTRUCTION NOTES

1. PROVIDE FIBERGLASS COVERS TO GRADE OVER SEPTIC TANK INLET AND OUTLET ACCESS PORTS AND D-BOX FOR SAMPLING ACCESS.
2. PROVIDE RECIRCULATION LINE FROM BIOCLERE UNIT TO SEPTIC TANK. INSTALL LINE PER MANUFACTURER'S SPECIFICATIONS.
3. INSTALLER MUST OBTAIN ALL AVAILABLE INSTALLATION PROCEDURES, SPECIFICATIONS, AND REQUIREMENTS FOR BIOCLERE UNIT FROM AWT AQUAPOINT.
4. FELCO TO VERIFY SOIL CONDITIONS DURING LEACH AREA INSTALLATION.

FELCO, INC.
ENGINEERING - LAND SURVEYING

JOB No : 03040	NAME : [redacted]
DATE : 6-11-2003	SHEET 2 OF 2
REVISIONS :	

JANUARY 2022

ONE PILL CAN KILL INITIATIVE

Overview and Key Results

AT A GLANCE

A nationwide surge in fake prescription pills, made and marketed by criminal drug networks, is driving harm, violence, and overdoses across the U.S.

DRUG OVERDOSE DEATHS OVER THE LAST YEAR

The U.S. overdose epidemic is driven by fentanyl & methamphetamine

64% of overdose deaths involved synthetic opioids, primarily fentanyl

28% involved psychostimulants, primarily methamphetamine

1 overdose death every 5 minutes

#ONEPILLCANKILL dea.gov/onepill

THE THREAT

1 Fentanyl

Criminal drug networks are flooding the U.S. with fentanyl and fentanyl-laced fake pills, driving the nationwide overdose crisis.

15,000 lbs OF FENTANYL SEIZED IN 2021

Enough to supply a potentially lethal dose to every member of the U.S. population

2 Counterfeit Prescription Pills

Fake pills, marketed as legitimate prescription pills to deceive the American public, are easy to purchase and widely available. Many counterfeit pills are made to look like prescription opioids such as oxycodone (Oxycontin®, Percocet®), hydrocodone (Vicodin®), and alprazolam (Xanax®); or stimulants like amphetamines (Adderall®).

Authentic Oxycodone

Counterfeit Oxycodone

20.4 Million Fake Pills Seized in 2021

Today, **4 out of 10 DEA-tested fake pills with fentanyl** contain a potentially deadly dose.

3 The Social Media Threat

Drug dealers are now harnessing the accessibility and anonymity of social media apps to push these deadly drugs into our communities faster, cheaper, and easier than ever before.

Known code words and emojis are used to market and sell illicit and deadly drugs on social media.

JANUARY 2022

ONE PILL CAN KILL INITIATIVE

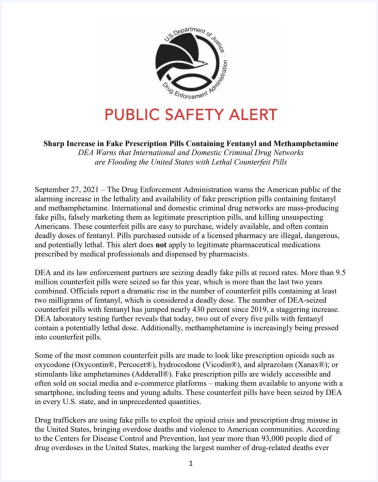
Overview and Key Results

DEA'S RESPONSE

DEA's mission is to protect the safety and health of American communities from the harm, violence, and overdoses driven by criminal drug networks.

Public Safety Alert

DEA issued a Public Safety Alert warning the public of the dramatic increase in deadly, fake pills.



PUBLIC SAFETY ALERT

Sharp Increase in Fake Prescription Pills Containing Fentanyl and Methamphetamine

DEA Warns that International and Domestic Criminal Drug Networks are Flooding the United States with Lethal Counterfeit Pills

September 27, 2021 – The Drug Enforcement Administration warns the American public of the alarming increase in the lethality and availability of fake prescription pills containing fentanyl and methamphetamine. International and domestic criminal drug networks are mass-producing fake pills, falsely marketing them as legitimate prescription pills, and killing unsuspecting Americans. These counterfeit pills are easy to purchase, widely available, and often contain deadly doses of fentanyl. Pills purchased outside of a licensed pharmacy are illegal, dangerous, and potentially lethal. This alert does **not** apply to legitimate pharmaceutical medications prescribed by medical professionals and dispensed by pharmacists.

DEA and its law enforcement partners are seizing deadly fake pills at record rates. More than 9.5 million counterfeit pills were seized so far this year, which is more than the last two years combined. Officials report a dramatic rise in the number of counterfeit pills containing at least two milligrams of fentanyl, which is considered a deadly dose. The number of DEA-seized counterfeit pills with fentanyl has jumped nearly 430 percent since 2019, a staggering increase. DEA laboratory testing further reveals that today, two out of every five pills with fentanyl contain a potentially lethal dose. Additionally, methamphetamine is increasingly being pressed into counterfeit pills.

Some of the most common counterfeit pills are made to look like prescription opioids such as oxycodone (Oxycontin®, Percocet®), hydrocodone (Vicodin®), and alprazolam (Xanax®); or stimulants like amphetamines (Adderall®). Fake prescription pills are widely accessible and often sold on social media and e-commerce platforms – making them available to anyone with a smartphone, including teens and young adults. These counterfeit pills have been seized by DEA in every U.S. state, and in unprecedented quantities.

Drug traffickers are using fake pills to exploit the opioid crisis and prescription drug misuse in the United States, bringing overdose deaths and violence to American communities. According to the Centers for Disease Control and Prevention, last year more than 93,000 people died of drug overdoses in the United States, marking the largest number of drug-related deaths ever

1

The Message to Americans

1. Never take medicine that wasn't prescribed to you by your by your doctor and dispensed by a licensed pharmacist.
2. Talk to your family and friends about the dangers of drugs online.
3. Spread the word that One Pill Can Kill.

Phase 1 / Public Safety Surge Aug. 3 - Sept. 27, 2021

A public safety surge to address the alarming increase in the availability of fentanyl-laced fake pills.

Phase 1 Seizures

- **1.8 Million** Fake Pills
- **1570 lbs** Fentanyl
- **8840 lbs** Meth
- **810** Arrests
- **158** Weapons

Phase 2 / Public Safety Surge Sept. 28 - Dec. 14, 2021

A second public safety surge targeting deadly, fake pills — and their increasing availability on social media platforms.

Phase 2 Seizures

- **8 Million** Fake Pills
- **1500 lbs** Fentanyl

The seizures were directly linked to:

- **46** overdoses & **39** overdose deaths.
- **At least 76** of the cases involved drug traffickers using social media applications
- **32** cases had direct ties to the major Mexican drug networks

ONE PILL CAN KILL

DRUG ENFORCEMENT ADMINISTRATION

SOCIAL MEDIA
Drug Trafficking Threat

WHAT WE KNOW

With the growth of social media and the proliferation of smartphones, a dangerous and deadly new drug threat has emerged: **criminal drug networks are abusing social media to expand their reach, create new markets, and target new clientele.** This includes by selling deadly fake fentanyl and methamphetamine pills, often to unsuspecting teenagers, young adults, and older Americans, who think they are buying the real thing.

No longer confined to street corners and the dark web, criminal drug networks are now in every home and school in America because of the internet apps on our smartphones.

HOW IT WORKS

ONE-STOP SHOP

Drug traffickers have turned smartphones into a one-stop shop to market, sell, buy, and deliver deadly, fake prescription pills and other dangerous drugs. In just three steps, deadly drugs can be purchased and delivered to your home just like any other good or service.

1. Advertise

Drug traffickers advertise on social media platforms like Facebook, Instagram, Snapchat, TikTok, Twitter and YouTube. These advertisements are in disappearing, 24-hour stories and in posts, which are promptly posted and removed. Posts and stories are often accompanied by known code words and emojis that are used to market and sell illicit and deadly drugs on social media. These code words and emojis are designed to evade detection by law enforcement and by the preset algorithms used by social media platforms.

ADVERTISE

COMMON EMOJI CODES

FAKE PRESCRIPTION DRUGS

PERCOCET & OXYCODONE

XANAX

ADDERALL

DEALER SIGNALS

DEALER ADVERTISING

HIGH POTENCY

UNIVERSAL FOR DRUGS

OTHER DRUGS

METH

HEROIN

COCAINE

MDMA & MOLLIES

MUSHROOMS

COUGH SYRUP

MARIJUANA

LARGE BATCH

Disclaimer: *These emojis reflect common examples found in DEA investigations. This list is not all-inclusive, and the images above are a representative sample.*

CONNECT

& PAY

2. Connect

Prospective buyers contact drug traffickers on social media apps in response to their advertisements – either using direct messaging or by commenting on a post. Once contact is made, drug traffickers and potential buyers often move to an encrypted communications app like WhatsApp, Signal, and Telegram. Drug traffickers typically switch to these encrypted communications apps to arrange drug deals with prospective buyers.

3. Pay

After a deal is made, drug traffickers request payment using one-click apps like Venmo, Zelle, Cash App, and Remitly.

WHERE IT'S HAPPENING

DEA has directly connected social media drug sales to overdose deaths.

DEA has found drug trafficking on internet apps nationwide — across urban, suburban, and rural communities. In 2021, DEA has investigated more than 80 cases involving drug trafficking on internet apps.

Social media drug trafficking impacts all age groups, but adolescents and young adults are particularly susceptible given their high-rates of social media usage.

WHAT YOU CAN DO

1. Stay vigilant and aware of the drug trafficking threats on smartphone apps.
2. Know the dangers of counterfeit pills: their accessibility, availability and increasing lethality.
3. Share message the message that One Pill Can Kill.
4. Visit DEA.Gov/onepill to learn more.

ONE PILL CAN KILL

Department of Justice | Drug Enforcement Administration

COUNTERFEIT PILLS FACT SHEET

FAKE PRESCRIPTION PILLS • WIDELY AVAILABLE • INCREASINGLY LETHAL

DEA LAB TESTING REVEALS THAT

4 OUT OF EVERY 10 PILLS

WITH FENTANYL CONTAIN A POTENTIALLY

LETHAL DOSE

Counterfeit pills often contain fentanyl and are more lethal than ever before.

DEA officials report a dramatic rise in the number of counterfeit pills containing at least 2 mg of fentanyl, which is considered a deadly dose.

Drug traffickers are using fake pills to exploit the opioid crisis and prescription drug misuse. The Centers for Disease Control and Prevention reports more than 100,000 drug overdose deaths in the United States in the most recent 12-month reporting period, the most ever recorded.

Fentanyl, the synthetic opioid most commonly found in counterfeit pills, is the primary driver in this alarming increase in overdose deaths.

Criminal drug networks are flooding the U.S. with deadly fake pills.

- Criminal drug networks are mass-producing fake pills and falsely marketing them as legitimate prescription pills to deceive the American public.
- Counterfeit pills are easy to purchase, widely available, often contain fentanyl or methamphetamine, and can be deadly.
- Fake prescription pills are easily accessible and often sold on social media and e-commerce platforms, making them available to anyone with a smartphone, including minors.
- Many counterfeit pills are made to look like prescription opioids such as oxycodone (Oxycontin®, Percocet®), hydrocodone (Vicodin®), and alprazolam (Xanax®); or stimulants like amphetamines (Adderall®).

AUTHENTIC
oxycodone
M30 tablets

***FAKE**
oxycodone M30 tablets
containing fentanyl

For more information about counterfeit pills, go to **DEA.gov/OnePill**

Data as of December 2021

**Photos of counterfeit pills do not represent all available fake pills.*

ONE PILL CAN KILL

Department of Justice | Drug Enforcement Administration

COUNTERFEIT PILLS FACT SHEET

Counterfeit pills are widely available across every state in the Country.

- DEA and its law enforcement partners are seizing deadly fake pills at record rates.
- Counterfeit pills have been identified in all 50 states and the District of Columbia.
- Drug trafficking is also inextricably linked with violence.
- DEA has opened 912 investigations with a nexus to violent crime so far this year, and with our partners, seized more than 8,700 guns connected to crimes.

So far this year, DEA has seized

20,000,000

fake pills often laced with fentanyl

-more than the last 2 years combined-

The **only safe medications** are ones that come from **licensed** and **accredited medical professionals.**

DEA warns that pills purchased outside of a licensed pharmacy are illegal, dangerous, and potentially lethal.

For more information about counterfeit pills, go to **DEA.gov/OnePill**

Data as of December 2021

The Drug Enforcement Administration ensures the safety and health of the American public by fighting against violent criminal drug networks and foreign cartels trafficking in illicit drugs. To accomplish that mission, the Drug Enforcement Administration employs approximately 10,000 men and women throughout the world—Special Agents, diversion investigators, intelligence analysts, and chemists—across 239 domestic offices in 23 U.S. divisions and 91 foreign offices in 68 countries.

ONE PILL CAN KILL

Department of Justice | Drug Enforcement Administration

FAKE PILLS FACT SHEET

FAKE PRESCRIPTION PILLS • WIDELY AVAILABLE • INCREASINGLY LETHAL

DEA LAB TESTING REVEALS THAT

6 OUT OF EVERY 10 PILLS

WITH FENTANYL CONTAIN A POTENTIALLY

LETHAL DOSE

Fake pills often contain fentanyl and are more lethal than ever before.

DEA officials report a dramatic rise in the number of fake pills containing at least 2 mg of fentanyl, which is considered a potentially lethal dose.

Drug traffickers are using fake pills to exploit the opioid crisis and prescription drug misuse. In 2021, 107,622 people died by drug poisoning in the United States.

Fentanyl, the synthetic opioid most commonly found in fake pills, is the primary driver in this alarming increase in poisoning deaths.

Criminal drug networks are flooding the U.S. with deadly fake pills.

- Criminal drug networks are mass-producing fake pills and falsely marketing them as legitimate prescription pills to deceive the American public.
- Fake pills are easy to purchase, widely available, often contain fentanyl or methamphetamine, and can be deadly.
- Fake prescription pills are easily accessible and often sold on social media and e-commerce platforms, making them available to anyone with a smartphone.
- Many fake pills are made to look like prescription opioids such as oxycodone (Oxycontin®, Percocet®), hydrocodone (Vicodin®), and alprazolam (Xanax®); or stimulants like amphetamines (Adderall®).

AUTHENTIC
oxycodone
M30 tablets

***FAKE**
oxycodone M30 tablets
containing fentanyl

For more information about fake pills, go to **DEA.gov/OnePill**

Data as of December 2022

**Photos of fake pills do not represent all available fake pills.*

ONE PILL CAN KILL

Department of Justice | Drug Enforcement Administration

FAKE PILLS FACT SHEET

Fake pills are widely available across every state in the Country.

- DEA and its law enforcement partners are seizing deadly fake pills at record rates.
- Fake pills have been seized in all 50 states and the District of Columbia.
- Drug trafficking is also inextricably linked with violence.

In 2022, DEA seized more than 50.6 million

50,600,000

fake pills often laced with fentanyl

-more than double the amount of fentanyl pills seized in 2021-

The only safe medications are ones that come from licensed and accredited medical professionals.

DEA warns that pills purchased outside of a licensed pharmacy are illegal, dangerous, and potentially lethal.

For more information about fake pills, go to **DEA.gov/OnePill**

Data as of December 2022

The Drug Enforcement Administration ensures the safety and health of the American public by fighting against violent criminal drug networks and foreign cartels trafficking in illicit drugs. To accomplish that mission, the Drug Enforcement Administration employs approximately 10,000 men and women throughout the world—Special Agents, diversion investigators, intelligence analysts, and chemists—across more than 250 domestic offices in 23 U.S. divisions and more than 90 foreign offices in nearly 70 countries.

ONE PILL CAN KILL

EMOJI DRUG CODE | DECODED

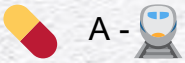
COMMON EMOJI CODES

FAKE PRESCRIPTION DRUGS

PERCOCET & OXYCODONE

XANAX

ADDERALL



DEALER SIGNALS

DEALER ADVERTISING

HIGH POTENCY

UNIVERSAL FOR DRUGS

LARGE BATCH

OTHER DRUGS

METH

HEROIN

COCAINE

MDMA & MOLLIES

MUSHROOMS

COUGH SYRUP

MARIJUANA

This reference guide is intended to give parents, caregivers, educators, and other influencers a better sense of how emojis are being used in conjunction with illegal drugs. Fake prescription pills, commonly laced with deadly fentanyl and methamphetamine, are often sold on social media and e-commerce platforms – making them available to anyone with a smartphone.

#ONEPILLCANKILL

dea.gov/onepill

Disclaimer: *These emojis reflect common examples found in DEA investigations. This list is not all-inclusive, and the images above are a representative sample.*

U.S. Department of Justice Drug Enforcement Administration

Department of Justice/Drug Enforcement Administration

Drug Fact Sheet

Fentanyl

WHAT IS FENTANYL?

Fentanyl is a potent synthetic opioid drug approved by the Food and Drug Administration for use as an analgesic (pain relief) and anesthetic. It is approximately 100 times more potent than morphine and 50 times more potent than heroin as an analgesic.

WHAT IS ITS ORIGIN?

Fentanyl was first developed in 1959 and introduced in the 1960s as an intravenous anesthetic. It is legally manufactured and distributed in the United States. Licit fentanyl pharmaceutical products are diverted via theft, fraudulent prescriptions, and illicit distribution by patients, physicians, nurses, physician assistants, nurse practitioners, and pharmacists.

From 2011 through 2021, both fatal overdoses associated with abuse of clandestinely produced fentanyl and fentanyl analogs, and law enforcement encounters increased markedly.

According to the Centers for Disease Control and Prevention (CDC), overdose deaths involving synthetic opioids, excluding methadone were involved in roughly 2,600 drug overdose deaths each year in 2011 and 2012, but from 2013 through 2021, the number of drug overdose deaths involving synthetic opioids, excluding methadone increased dramatically each year, to more than 68,000 in 2021. The total number of overdose deaths for this category was greater than 258,000 for 2013 through 2021. These overdose deaths involving synthetic opioids is primarily driven by illicitly manufactured fentanyl, including fentanyl analogs. Consistent with overdose death data, the trafficking, distribution, and abuse of illicitly produced fentanyl and fentanyl analogs positively correlates with the associated dramatic increase in overdose fatalities.

A lethal dose of fentanyl

What are common street names?

Common street names include:

- Apache, China Girl, China Town, Dance Fever, Friend, Goodfellas, Great Bear, He-Man, Jackpot, King Ivory, Murder 8, and Tango & Cash.

What does it look like?

Clandestinely produced fentanyl is encountered either as a powder or in fake tablets and is sold alone or in combination with other drugs such as heroin or cocaine.

Fentanyl pharmaceutical products are currently available in the following dosage forms: oral transmucosal lozenges commonly referred to as fentanyl “lollipops” (Actiq®), effervescent buccal tablets (Fentora®), sublingual tablets (Abstral®), sublingual sprays (Subsys®), nasal sprays (Lazanda®), transdermal patches (Duragesic®), and injectable formulations.

How is it abused?

Fentanyl can be injected, snorted/sniffed, smoked, taken orally by pill or tablet, and spiked onto blotter paper. Illicitly produced fentanyl is sold alone or in combination with heroin and other substances

and has been identified in fake pills, mimicking pharmaceutical drugs such as oxycodone. Fentanyl patches are abused by removing its gel contents and then injecting or ingesting these contents. Patches have also been frozen, cut into pieces, and placed under the tongue or in the cheek cavity. According to the National Forensic Laboratory Information System - National Estimates Based on All Reports estimates, reports on fentanyl (both pharmaceutical and clandestinely produced) increased from 4,697 in 2014 to over 117,045 in 2020, as reported by federal, state, and local forensic laboratories in the United States.

What is the effect on the body?

Fentanyl, similar to other commonly used opioid analgesics (e.g., morphine), produces effects such as relaxation, euphoria, pain relief, sedation, confusion, drowsiness, dizziness, nausea, vomiting, urinary retention, pupillary constriction, and respiratory depression.

What are the overdose effects?

Overdose may result in stupor, changes in pupillary size, cold and clammy skin, cyanosis, coma, and respiratory failure leading to death. The presence of triad of symptoms such as coma, pinpoint pupils, and respiratory depression are strongly suggestive of opioid poisoning.

Which drugs cause similar effects?

Drugs that cause similar effects include other opioids such as morphine, hydrocodone, oxycodone, hydromorphone, methadone, and heroin.

What is the legal status in the Federal Control Substances Act?

Fentanyl is a Schedule II narcotic under the United States Controlled Substances Act of 1970.

Fake rainbow oxycodone M30 tablets containing fentanyl

Department of Justice/Drug Enforcement Administration

Drug Fact Sheet

Methamphetamine

WHAT IS METHAMPHETAMINE?

Methamphetamine (meth) is a stimulant. The FDA-approved brand-name medication is Desoxyn®.

WHAT IS ITS ORIGIN?

Mexican drug trafficking organizations have become the primary manufacturers and distributors of methamphetamine throughout the United States, including in Hawaii. Domestic clandestine laboratory operators also produce and distribute meth but on an exponenentially smaller scale. The methods used depend on the availability of precursor chemicals.

Currently, this domestic clandestinely produced meth is mainly made with diverted products that contain pseudoephedrine. Mexican methamphetamine is made with different precursor chemicals. The Combat Methamphetamine Epidemic Act of 2005 requires retailers of non-prescription products containing pseudoephedrine, ephedrine, or phenylpropanolamine to place these products behind the counter or in a locked cabinet.

Consumers must show identification and sign a logbook for each purchase.

What are common street names?

Common street names include:

- Batu, Bikers Coffee, Black Beauties, Chalk, Chicken Feed, Crank, Crystal, Glass, Go-Fast, Hiropon, Ice, Meth, Methlies Quick, Poor Man's Cocaine, Shabu, Shards, Speed, Stove Top, Tina, Trash, Tweak, Uppers, Ventana, Vidrio, Yaba, and Yellow Bam

What does it look like?

Regular meth is a pill or powder. Crystal meth resembles glass fragments or shiny blue-white "rocks" of various sizes.

Methamphetamine in finished form

How is it abused?

Meth is swallowed, snorted, injected, or smoked. To intensify the effects, users may take higher doses of the drug, take it more frequently, or change their method of intake.

What is its effect on the mind?

Meth is a highly addictive drug with potent central nervous system (CNS) stimulant properties. Those who smoke or inject it report a brief, intense sensation, or rush. Oral ingestion or snorting produces a long-lasting high instead of a rush, which reportedly can continue for as long as half a day. Both the rush and the high are believed to result from the release of very high levels of the neurotransmitter dopamine into areas of the brain that regulate feelings of pleasure. Long-term meth use results in many damaging effects, including addiction.

Chronic meth users can exhibit violent behavior,

anxiety, confusion, insomnia, and psychotic features including paranoia, aggression, visual and auditory hallucinations, mood disturbances, and delusions — such as the sensation of insects creeping on or under the skin.

Such paranoia can result in homicidal or suicidal thoughts. Researchers have reported that as much as 50 percent of the dopamine-producing cells in the brain can be damaged after prolonged exposure to relatively low levels of meth. Some studies suggested that the use of methamphetamine may also result in serotonergic neurotoxicity.

What is its effect on the body?

Taking even small amounts of meth can result in:

- Increased wakefulness, increased physical activity, decreased appetite, rapid breathing and heart rate, irregular heartbeat, increased blood pressure, and hyperthermia (overheating)

High doses can elevate body temperature to dangerous, sometimes lethal, levels, and cause convulsions and even cardiovascular collapse and death. Meth use may also cause extreme anorexia, memory loss, and severe dental problems.

What are its overdose effects?

High doses may result in death from stroke, heart attack, or multiple organ problems caused by overheating.

Which drugs cause similar effects?

Cocaine and potent stimulant pharmaceuticals, such as amphetamines and methylphenidate, produce similar effects.

What is its legal status in the United States?

Methamphetamine is a Schedule II stimulant under the Controlled Substances Act, which means that it has a high potential for abuse and a currently acceptable medical use (in FDA-approved products). It is available only through a prescription that cannot be refilled. Today there is only one legal meth product, Desoxyn®. It is currently marketed in 5, 10, and 15-milligram tablets (immediate release and extended release formulations) and has very limited use in the treatment of obesity and ADHD.

Methamphetamine in finished form

July 31, 2023

Ian Jarvis & Andrew Osei
DEP Southeast Regional Office
20 Riverside Drive
Lakeville, MA 02347

Re: NON-SE-06-1V035
2022-2023 Annual Report
Eddy & Stony Brook Elementary Schools
Brewster, MA

Dear Mr. Dudley:

In accordance with the Eddy Elementary School Return to Compliance approval, dated 06/05/2007, the enclosed data summarizes the water usage at the Stony Brook and Eddy Elementary Schools for the 2022-2023 school year. As shown on the accompanying spreadsheets, water usage at both schools was recorded during the school year. **Please note that averages now include weekend, vacations, and holidays.**

Based on an examination of these figures for the two schools, the following table summarizes the data listed on the accompanying spreadsheets. The school enrollment figures were provided by the Nauset Regional School District.

2022-2023 Stony Brook Elementary School

Maximum Daily Flow (07/06/2023)	3,021 gallons
Minimum Daily Flow (12/12/2022)	267 gallons
Average Daily Flow	1,665 GPD
Number of Students Enrolled	230
Number of Faculty	25

2022-2023 Eddy Elementary School

Maximum Daily Flow (07/15/2022)	2,072 gallons
Minimum Daily Flow (05/29/2023)	44 gallons
Average Daily Flow	712 GPD
Number of Students Enrolled	201
Number of Faculty	21

The school staff will continue to record the daily water usage at each school. If you have any questions or need additional information, please do not hesitate to contact me directly.

Very truly yours,
COASTAL ENGINEERING CO., INC.

Austin Cahill

Enclosure

cc: David Ferris, DEP Boston
Brewster Town Administrator
NRSD Superintendent
Brewster Board of Health

STONY BROOK ELEMENTARY SCHOOL

DATE	METER	METER USAGE (GALLONS)	NO. OF DAYS	AVG. DAILY USE (GPD)
11/7/2022	1,714,783	-----	-----	-----
11/8/2022	1,715,583	800	1	800
11/9/2022	1,716,405	822	1	822
11/10/2022	1,717,229	824	1	824
11/14/2022	1,718,037	808	4	202
11/15/2022	1,719,647	1,610	1	1,610
11/16/2022	1,720,459	812	1	812
11/17/2022	1,721,260	801	1	801
11/18/2022	1,722,063	803	1	803
11/21/2022	1,722,873	810	3	270
11/22/2022	1,723,686	813	1	813
11/28/2022	1,727,736	4,050	6	675
11/29/2022	1,728,546	810	1	810
12/1/2022	1,730,146	1,600	2	800
12/2/2022	1,730,955	809	1	809
12/5/2022	1,731,766	811	3	270
12/6/2022	1,732,573	807	1	807
12/7/2022	1,733,374	801	1	801
12/8/2022	1,734,182	808	1	808
12/9/2022	1,734,994	812	1	812
12/12/2022	1,735,794	800	3	267
12/13/2022	1,736,608	814	1	814
12/14/2022	1,737,422	814	1	814
12/15/2022	1,738,232	810	1	810
12/16/2022	1,739,046	814	1	814
12/19/2022	1,739,856	810	3	270
12/20/2022	1,740,671	815	1	815
12/21/2022	1,741,471	800	1	800
12/22/2022	1,742,302	831	1	831
12/23/2022	1,743,118	816	1	816
1/3/2023	1,751,218	8,100	11	736
1/4/2023	1,752,048	830	1	830
1/5/2023	1,752,893	845	1	845
1/6/2023	1,754,147	1,254	1	1,254
1/9/2023	1,755,017	870	3	290
1/10/2023	1,755,827	810	1	810
1/11/2023	1,757,931	2,104	1	2,104
1/12/2023	1,759,346	1,415	1	1,415
1/13/2023	1,761,981	2,635	1	2,635
1/17/2023	1,764,522	2,541	4	635
1/18/2023	1,765,332	810	1	810
1/19/2023	1,766,684	1,352	1	1,352

1/20/2023	1,769,248	2,564	1	2,564
2/3/2023	1,803,153	33,905	14	2,422
2/7/2023	1,810,556	7,403	4	1,851
2/8/2023	1,812,315	1,759	1	1,759
2/9/2023	1,814,074	1,759	1	1,759
2/10/2023	1,815,824	1,750	1	1,750
2/13/2023	1,817,592	1,768	3	589
2/14/2023	1,819,341	1,749	1	1,749
2/15/2023	1,821,110	1,769	1	1,769
2/16/2023	1,822,869	1,759	1	1,759
2/17/2023	1,824,728	1,859	1	1,859
2/27/2023	1,842,318	17,590	10	1,759
2/28/2023	1,844,088	1,770	1	1,770
3/1/2023	1,845,843	1,755	1	1,755
3/2/2023	1,847,603	1,760	1	1,760
3/3/2023	1,849,356	1,753	1	1,753
3/6/2023	1,851,115	1,759	3	586
3/7/2023	1,852,874	1,759	1	1,759
3/8/2023	1,854,633	1,759	1	1,759
3/9/2023	1,856,333	1,700	1	1,700
3/10/2023	1,858,134	1,801	1	1,801
3/13/2023	1,859,868	1,734	3	578
3/14/2023	1,861,583	1,715	1	1,715
3/15/2023	1,863,322	1,739	1	1,739
3/16/2023	1,865,111	1,789	1	1,789
3/17/2023	1,866,870	1,759	1	1,759
3/20/2023	1,868,599	1,729	3	576
3/21/2023	1,870,351	1,752	1	1,752
3/22/2023	1,872,350	1,999	1	1,999
3/23/2023	1,874,102	1,752	1	1,752
3/24/2023	1,875,722	1,620	1	1,620
3/27/2023	1,877,464	1,742	3	581
3/28/2023	1,879,218	1,754	1	1,754
3/29/2023	1,881,008	1,790	1	1,790
3/30/2023	1,882,862	1,854	1	1,854
3/31/2023	1,884,652	1,790	1	1,790
4/3/2023	1,884,652	0	3	0
4/4/2023	1,886,442	1,790	1	1,790
4/5/2023	1,888,010	1,568	1	1,568
4/6/2023	1,889,755	1,745	1	1,745
4/7/2023	1,891,612	1,857	1	1,857
4/8/2023	1,893,101	1,489	1	1,489
4/11/2023	1,896,748	3,647	3	1,216
4/12/2023	1,898,543	1,795	1	1,795
4/13/2023	1,900,343	1,800	1	1,800
4/14/2023	1,901,801	1,458	1	1,458

4/17/2023	1,903,343	1,542	3	514
4/18/2023	1,905,002	1,659	1	1,659
4/19/2023	1,906,686	1,684	1	1,684
4/20/2023	1,908,234	1,548	1	1,548
4/21/2023	1,909,932	1,698	1	1,698
4/24/2023	1,911,690	1,758	3	586
4/25/2023	1,913,289	1,599	1	1,599
5/1/2023	1,929,819	16,530	6	2,755
5/2/2023	1,932,552	2,733	1	2,733
5/3/2023	1,935,312	2,760	1	2,760
5/4/2023	1,938,075	2,763	1	2,763
5/5/2023	1,940,845	2,770	1	2,770
5/6/2023	1,943,605	2,760	1	2,760
5/7/2023	1,946,365	2,760	1	2,760
5/8/2023	1,949,064	2,699	1	2,699
5/9/2023	1,951,824	2,760	1	2,760
5/10/2023	1,954,584	2,760	1	2,760
5/11/2023	1,957,344	2,760	1	2,760
5/12/2023	1,960,145	2,801	1	2,801
5/13/2023	1,962,905	2,760	1	2,760
5/14/2023	1,965,665	2,760	1	2,760
5/15/2023	1,968,425	2,760	1	2,760
5/16/2023	1,971,185	2,760	1	2,760
5/17/2023	1,973,945	2,760	1	2,760
5/18/2023	1,976,756	2,811	1	2,811
5/19/2023	1,979,455	2,699	1	2,699
5/20/2023	1,982,205	2,750	1	2,750
5/21/2023	1,984,955	2,750	1	2,750
5/22/2023	1,987,715	2,760	1	2,760
5/23/2023	1,990,475	2,760	1	2,760
5/24/2023	1,990,751	276	1	276
5/25/2023	1,993,450	2,699	1	2,699
5/26/2023	1,996,199	2,749	1	2,749
5/27/2023	1,998,959	2,760	1	2,760
5/28/2023	2,001,719	2,760	1	2,760
5/29/2023	2,004,479	2,760	1	2,760
5/30/2023	2,006,769	2,290	1	2,290
6/1/2023	2,009,529	2,760	2	1,380
6/2/2023	2,012,389	2,860	1	2,860
6/3/2023	2,015,350	2,961	1	2,961
6/4/2023	2,018,110	2,760	1	2,760
6/5/2023	2,020,870	2,760	1	2,760
6/6/2023	2,023,609	2,739	1	2,739
6/7/2023	2,026,369	2,760	1	2,760
6/8/2023	2,029,075	2,706	1	2,706
6/9/2023	2,031,151	2,076	1	2,076

6/10/2023	2,033,911	2,760	1	2,760
6/11/2023	2,036,581	2,670	1	2,670
6/12/2023	2,039,341	2,760	1	2,760
6/13/2023	2,042,101	2,760	1	2,760
6/14/2023	2,044,861	2,760	1	2,760
6/15/2023	2,047,530	2,669	1	2,669
6/16/2023	2,049,690	2,160	1	2,160
6/17/2023	2,051,950	2,260	1	2,260
6/18/2023	2,054,510	2,560	1	2,560
6/19/2023	2,057,270	2,760	1	2,760
6/20/2023	2,059,630	2,360	1	2,360
6/21/2023	2,062,390	2,760	1	2,760
6/22/2023	2,064,879	2,489	1	2,489
6/23/2023	2,067,639	2,760	1	2,760
6/24/2023	2,070,237	2,598	1	2,598
6/25/2023	2,072,987	2,750	1	2,750
6/26/2023	2,075,747	2,760	1	2,760
6/27/2023	2,078,107	2,360	1	2,360
6/28/2023	2,080,867	2,760	1	2,760
6/29/2023	2,083,627	2,760	1	2,760
6/30/2023	2,086,388	2,761	1	2,761
7/1/2023	2,086,388	0	1	0
7/2/2023	2,089,094	2,706	1	2,706
7/3/2023	2,092,051	2,957	1	2,957
7/4/2023	2,095,008	2,957	1	2,957
7/5/2023	2,098,108	3,100	1	3,100
7/6/2023	2,101,129	3,021	1	3,021
7/7/2023	2,103,894	2,765	1	2,765
7/8/2023	2,106,851	2,957	1	2,957
7/9/2023	2,109,814	2,963	1	2,963
7/10/2023	2,112,777	2,963	1	2,963
7/11/2023	2,115,674	2,897	1	2,897
7/12/2023	2,118,631	2,957	1	2,957
7/13/2023	2,121,628	2,997	1	2,997
7/14/2023	2,124,585	2,957	1	2,957
7/15/2023	2,127,182	2,597	1	2,597
7/16/2023	2,130,139	2,957	1	2,957
7/17/2023	2,133,096	2,957	1	2,957
7/18/2023	2,135,953	2,857	1	2,857
Total Discharge	421,170			
Days:	253			
Average GPD	1,665			

EDDY ELEMENTARY SCHOOL

DATE	METER 1 READING	METER 1 USAGE (GALLONS)	METER 2 READING	METER 2 USAGE (GALLONS)	TOTAL USAGE (GALLONS)	NO. OF DAYS	DAILY USE (GPD)
7/1/2022	344,817	-----	280,795	-----	-----	-----	-----
7/4/2022	No Data	No Data	No Data	No Data	No Data	No Data	No Data
7/5/2022	345,043	226	281,304	509	735	4	184
7/6/2022	345,452	409	281,822	518	927	1	927
7/7/2022	345,831	379	282,399	577	956	1	956
7/8/2022	346,165	334	283,064	665	999	1	999
7/11/2022	346,512	347	283,540	476	823	3	274
7/12/2022	346,745	233	284,171	631	864	1	864
7/13/2022	347,300	555	284,944	773	1,328	1	1,328
7/14/2022	350,498	3,198	250,669	-----	-----	-----	-----
7/15/2022	350,845	347	252,394	1,725	2,072	1	2,072
7/18/2022	351,343	498	252,698	304	802	3	267
7/19/2022	351,845	502	252,902	204	706	1	706
7/20/2022	352,301	456	253,306	404	860	1	860
7/21/2022	352,570	269	253,704	398	667	1	667
7/22/2022	353,211	641	254,003	299	940	1	940
7/25/2022	353,709	498	254,350	347	845	3	282
7/26/2022	354,310	601	254,708	358	959	1	959
7/27/2022	354,811	501	255,050	342	843	1	843
7/28/2022	355,210	399	255,439	389	788	1	788
7/29/2022	355,611	401	255,746	307	708	1	708
8/1/2022	356,109	498	256,060	314	812	3	271
8/2/2022	356,707	598	256,364	304	902	1	902
8/3/2022	357,011	304	256,663	299	603	1	603
8/4/2022	357,426	415	256,917	254	669	1	669
8/5/2022	357,891	465	257,182	265	730	1	730
8/8/2022	358,095	204	257,455	273	477	3	159
8/9/2022	358,319	224	257,797	342	566	1	566
8/10/2022	358,817	498	258,042	245	743	1	743
8/11/2022	359,329	512	258,342	300	812	1	812
8/12/2022	359,676	347	258,626	284	631	1	631
8/15/2022	360,178	502	258,985	359	861	3	287
8/16/2022	360,478	300	259,292	307	607	1	607
8/17/2022	360,965	487	259,589	297	784	1	784
8/18/2022	361,423	458	259,889	300	758	1	758
8/19/2022	361,838	415	260,210	321	736	1	736
8/22/2022	362,422	584	260,560	350	934	3	311
8/23/2022	362,832	410	260,815	255	665	1	665
8/24/2022	363,295	463	261,064	249	712	1	712
8/25/2022	363,768	473	261,364	300	773	1	773
8/26/2022	364,266	498	261,633	269	767	1	767
8/29/2022	364,467	201	261,974	341	542	3	181
8/30/2022	364,756	289	262,343	369	658	1	658
8/31/2022	365,103	347	262,658	315	662	1	662
9/1/2022	365,601	498	262,962	304	802	1	802
9/2/2022	366,056	455	263,249	287	742	1	742
9/5/2022	No school	No school	No school	No school	No school	No school	No school
9/6/2022	366,706	650	263,675	426	1,076	4	269
9/7/2022	367,162	456	264,003	328	784	1	784
9/8/2022	367,574	412	264,305	302	714	1	714
9/9/2022	368,039	465	264,520	215	680	1	680
9/12/2022	368,462	423	264,828	308	731	3	244
9/13/2022	368,894	432	265,132	304	736	1	736
9/14/2022	369,372	478	265,438	306	784	1	784
9/15/2022	369,837	465	265,745	307	772	1	772
9/16/2022	370,335	498	266,056	311	809	1	809
9/19/2022	370,771	436	266,454	398	834	3	278
9/20/2022	371,183	412	266,761	307	719	1	719
9/21/2022	371,615	432	267,075	314	746	1	746
9/22/2022	372,113	498	267,384	309	807	1	807
9/23/2022	372,582	469	267,717	333	802	1	802
9/26/2022	373,037	455	268,015	298	753	3	251
9/27/2022	373,522	485	268,406	391	876	1	876
9/28/2022	373,941	419	268,410	4	423	1	423
9/29/2022	374,369	428	268,410	0	428	1	428
9/30/2022	374,804	435	268,514	104	539	1	539
10/3/2022	375,843	1,039	268,618	104	1,143	3	381

10/4/2022	376,643	800	269,218	600	1,400	1	1,400
10/5/2022	377,558	915	269,860	642	1,557	1	1,557
10/6/2022	378,472	914	270,402	542	1,456	1	1,456
10/7/2022	379,224	752	271,144	742	1,494	1	1,494
10/10/2022	No school	No school	No school	No school	No school	No school	No school
10/11/2022	380,119	895	271,792	648	1,543	4	386
10/12/2022	381,071	952	272,404	612	1,564	1	1,564
10/13/2022	382,036	965	273,056	652	1,617	1	1,617
10/14/2022	382,948	912	273,688	632	1,544	1	1,544
10/17/2022	383,949	1,001	274,291	603	1,604	3	535
10/18/2022	384,796	847	274,893	602	1,449	1	1,449
10/19/2022	385,754	958	275,493	600	1,558	1	1,558
10/20/2022	386,717	963	276,135	642	1,605	1	1,605
10/21/2022	387,631	914	276,767	632	1,546	1	1,546
10/24/2022	388,940	1,309	277,398	631	1,940	3	647
10/25/2022	389,960	1,020	277,991	593	1,613	1	1,613
10/26/2022	390,975	1,015	278,643	652	1,667	1	1,667
10/27/2022	391,931	956	279,305	662	1,618	1	1,618
10/28/2022	392,951	1,020	280,047	742	1,762	1	1,762
10/31/2022	392,990	39	280,689	642	681	3	227
11/1/2022	392,991	1	281,331	642	643	1	643
11/2/2022	393,845	854	281,983	652	1,506	1	1,506
11/3/2022	394,848	1,003	282,657	674	1,677	1	1,677
11/4/2022	395,758	910	283,278	621	1,531	1	1,531
11/7/2022	No school	No school	No school	No school	No school	No school	No school
11/8/2022	398,978	3,220	283,920	642	3,862	4	966
11/9/2022	400,179	1,201	284,561	641	1,842	1	1,842
11/10/2022	401,124	945	285,215	654	1,599	1	1,599
11/11/2022	No school	No school	No school	No school	No school	No school	No school
11/14/2022	402,576	1,452	285,919	704	2,156	4	539
11/15/2022	403,931	1,355	286,561	642	1,997	1	1,997
11/16/2022	404,933	1,002	287,206	645	1,647	1	1,647
11/17/2022	405,972	1,039	287,747	541	1,580	1	1,580
11/18/2022	406,994	1,022	288,268	521	1,543	1	1,543
11/21/2022	408,027	1,033	288,866	598	1,631	3	544
11/22/2022	409,329	1,302	289,466	600	1,902	1	1,902
11/23/2022	No school	No school	No school	No school	No school	No school	No school
11/24/2022	No school	No school	No school	No school	No school	No school	No school
11/25/2022	No school	No school	No school	No school	No school	No school	No school
11/28/2022	410,930	1,601	290,408	942	2,543	6	424
11/29/2022	411,929	999	291,012	604	1,603	1	1,603
11/30/2022	413,238	1,309	291,564	552	1,861	1	1,861
12/1/2022	414,277	1,039	292,206	642	1,681	1	1,681
12/2/2022	415,222	945	292,806	600	1,545	1	1,545
12/5/2022	416,132	910	293,472	666	1,576	3	525
12/6/2022	417,190	1,058	294,166	694	1,752	1	1,752
12/7/2022	418,219	1,029	294,755	589	1,618	1	1,618
12/8/2022	419,248	1,029	295,509	754	1,783	1	1,783
12/9/2022	420,300	1,052	296,144	635	1,687	1	1,687
12/12/2022	421,339	1,039	296,778	634	1,673	3	558
12/13/2022	422,297	958	297,412	634	1,592	1	1,592
12/14/2022	423,166	869	298,086	674	1,543	1	1,543
12/15/2022	423,924	758	298,711	625	1,383	1	1,383
12/16/2022	424,780	856	299,343	632	1,488	1	1,488
12/19/2022	425,712	932	299,974	631	1,563	3	521
12/20/2022	426,655	943	300,648	674	1,617	1	1,617
12/21/2022	427,520	865	301,248	600	1,465	1	1,465
12/22/2022	428,546	1,026	301,780	532	1,558	1	1,558
12/23/2022	429,585	1,039	302,384	604	1,643	1	1,643
12/26/2022	No school	No school	No school	No school	No school	No school	No school
12/27/2022	No school	No school	No school	No school	No school	No school	No school
12/28/2022	No school	No school	No school	No school	No school	No school	No school
12/29/2022	No school	No school	No school	No school	No school	No school	No school
12/30/2022	No school	No school	No school	No school	No school	No school	No school
1/2/2023	No school	No school	No school	No school	No school	No school	No school
1/3/2023	No school	No school	No school	No school	No school	No school	No school
1/4/2023	430,894	1,309	303,184	800	2,109	12	176
1/5/2023	432,203	1,309	303,808	624	1,933	10	193
1/6/2023	433,512	1,309	304,432	624	1,933	10	193
1/9/2023	434,715	1,203	305,032	600	1,803	12	150
1/10/2023	435,457	742	305,596	564	1,306	12	109

1/11/2023	436,302	845	306,241	645	1,490	12	124
1/12/2023	437,611	1,309	306,874	633	1,942	10	194
1/13/2023	438,920	1,309	307,489	615	1,924	10	192
1/16/2023	No school	No school	No school	No school	No school	12	No school
1/17/2023	440,421	1,501	308,213	724	2,225	12	185
1/18/2023	441,730	1,309	308,837	624	1,933	12	161
1/19/2023	442,939	1,209	309,479	642	1,851	10	185
1/20/2023	444,348	1,409	310,121	642	2,051	10	205
1/23/2023	445,657	1,309	310,773	652	1,961	12	163
1/24/2023	446,866	1,209	311,415	642	1,851	12	154
1/25/2023	448,375	1,509	312,037	622	2,131	12	178
1/26/2023	449,320	945	312,672	635	1,580	10	158
1/27/2023	450,525	1,205	313,319	647	1,852	10	185
1/30/2023	451,179	654	313,961	642	1,296	12	108
1/31/2023	453,379	2,200	314,603	642	2,842	12	237
2/1/2023	454,688	1,309	315,245	642	1,951	12	163
2/2/2023	455,997	1,309	315,887	642	1,951	10	195
2/3/2023	456,495	498	316,529	642	1,140	10	114
2/6/2023	456,960	465	317,154	625	1,090	12	91
2/7/2023	457,570	610	317,795	641	1,251	12	104
2/8/2023	458,224	654	318,393	598	1,252	12	104
2/9/2023	458,934	710	318,962	569	1,279	10	128
2/10/2023	459,888	954	319,606	644	1,598	10	160
2/13/2023	460,742	854	320,319	713	1,567	12	131
2/14/2023	461,426	684	320,948	629	1,313	12	109
2/15/2023	462,340	914	321,549	601	1,515	12	126
2/16/2023	462,994	654	322,182	633	1,287	10	129
2/17/2023	464,033	1,039	322,824	642	1,681	10	168
2/20/2023	No school	No school	No school	No school	No school	12	No school
2/21/2023	No school	No school	No school	No school	No school	12	No school
2/22/2023	No school	No school	No school	No school	No school	12	No school
2/23/2023	No school	No school	No school	No school	No school	10	No school
2/24/2023	No school	No school	No school	No school	No school	10	No school
2/27/2023	465,272	1,239	323,866	1,042	2,281	12	190
2/28/2023	466,311	1,039	324,508	642	1,681	12	140
3/1/2023	467,350	1,039	325,150	642	1,681	12	140
3/2/2023	468,659	1,309	325,792	642	1,951	10	195
3/3/2023	469,867	1,208	326,413	621	1,829	10	183
3/6/2023	470,877	1,010	326,961	548	1,558	12	130
3/7/2023	471,787	910	327,559	598	1,508	12	126
3/8/2023	472,735	948	328,160	601	1,549	12	129
3/9/2023	473,774	1,039	328,815	655	1,694	10	169
3/10/2023	474,784	1,010	329,440	625	1,635	10	164
3/13/2023	475,817	1,033	330,082	642	1,675	12	140
3/14/2023	476,856	1,039	330,724	642	1,681	12	140
3/15/2023	478,095	1,239	331,378	654	1,893	12	158
3/16/2023	479,082	987	331,976	598	1,585	10	159
3/17/2023	480,017	935	332,497	521	1,456	10	146
3/20/2023	480,971	954	333,095	598	1,552	12	129
3/21/2023	481,969	998	333,740	645	1,643	12	137
3/22/2023	482,989	1,020	334,340	600	1,620	12	135
3/23/2023	484,245	1,256	334,941	601	1,857	10	186
3/24/2023	485,284	1,039	335,542	601	1,640	10	164
3/27/2023	486,323	1,039	336,144	602	1,641	12	137
3/28/2023	487,352	1,029	336,186	42	1,071	12	89
3/29/2023	488,398	1,046	337,431	1,245	2,291	12	191
3/30/2023	489,427	1,029	338,073	642	1,671	10	167
3/31/2023	490,456	1,029	338,715	642	1,671	10	167
4/3/2023	491,495	1,039	339,357	642	1,681	12	140
4/4/2023	492,595	1,100	339,657	300	1,400	12	117
4/5/2023	493,795	1,200	340,657	1,000	2,200	12	183
4/6/2023	495,100	1,305	340,955	298	1,603	10	160
4/7/2023	496,099	999	341,639	684	1,683	10	168
4/10/2023	497,419	1,320	342,263	624	1,944	12	162
4/11/2023	498,522	1,103	342,938	675	1,778	12	148
4/12/2023	499,831	1,309	343,512	574	1,883	12	157
4/13/2023	500,851	1,020	344,033	521	1,541	10	154
4/14/2023	502,056	1,205	344,632	599	1,804	10	180
4/17/2023	No school	No school	No school	No school	No school	12	No school
4/18/2023	No school	No school	No school	No school	No school	12	No school
4/19/2023	No school	No school	No school	No school	No school	12	No school

4/20/2023	No school	No school	No school	No school	No school	10	No school
4/21/2023	No school	No school	No school	No school	No school	10	No school
4/24/2023	503,465	1,409	345,888	1,256	2,665	12	222
4/25/2023	504,774	1,309	346,510	622	1,931	12	161
4/26/2023	505,283	509	347,133	623	1,132	12	94
4/27/2023	505,928	645	347,758	625	1,270	10	127
4/28/2023	507,237	1,309	348,400	642	1,951	10	195
5/1/2023	507,852	615	348,742	342	957	12	80
5/2/2023	508,464	612	349,084	342	954	12	80
5/3/2023	508,881	417	349,337	253	670	12	56
5/4/2023	509,428	547	349,689	352	899	10	90
5/5/2023	510,041	613	349,900	211	824	10	82
5/8/2023	510,425	384	350,154	254	638	12	53
5/9/2023	511,040	615	350,412	258	873	12	73
5/10/2023	511,461	421	350,706	294	715	12	60
5/11/2023	512,048	587	351,048	342	929	10	93
5/12/2023	512,435	387	351,432	384	771	10	77
5/15/2023	512,793	358	351,674	242	600	12	50
5/16/2023	513,051	258	351,988	314	572	12	48
5/17/2023	No school	No school	No school	No school	No school	12	No school
5/18/2023	513,666	615	352,309	321	936	10	94
5/19/2023	514,190	524	352,605	296	820	10	82
5/22/2023	514,546	356	352,947	342	698	12	58
5/23/2023	515,085	539	353,209	262	801	12	67
5/24/2023	515,609	524	353,507	298	822	12	69
5/25/2023	516,207	598	353,861	354	952	10	95
5/26/2023	516,820	613	354,203	342	955	10	96
5/29/2023	517,031	211	354,515	312	523	12	44
5/30/2023	517,400	369	354,816	301	670	12	56
6/1/2023	518,015	615	355,137	321	936	13	72
6/2/2023	518,576	561	355,479	342	903	11	82
6/5/2023	519,165	589	355,721	242	831	13	64
6/6/2023	519,766	601	356,019	298	899	13	69
6/7/2023	520,264	498	356,363	344	842	13	65
6/8/2023	520,879	615	356,664	301	916	13	70
6/9/2023	521,477	598	356,961	297	895	11	81
6/12/2023	522,075	598	357,303	342	940	13	72
6/13/2023	522,705	630	357,548	245	875	12	73
6/14/2023	523,203	498	357,890	342	840	12	70
6/15/2023	523,701	498	358,186	296	794	10	79
6/16/2023	524,249	548	358,528	342	890	10	89
6/19/2023	524,848	599	358,890	362	961	12	80
6/20/2023	525,449	601	359,211	321	922	12	77
6/21/2023	525,926	477	359,553	342	819	12	68
6/22/2023	526,417	491	359,851	298	789	10	79
6/23/2023	527,032	615	360,193	342	957	10	96
6/26/2023	No Data	No Data	No Data	No Data	No Data	No Data	No Data
6/27/2023	No Data	No Data	No Data	No Data	No Data	No Data	No Data
6/28/2023	No Data	No Data	No Data	No Data	No Data	No Data	No Data
6/29/2023	No Data	No Data	No Data	No Data	No Data	No Data	No Data
6/30/2023	No Data	No Data	No Data	No Data	No Data	No Data	No Data
7/3/2023	527,647	615	360,535	342	957	10	96
7/4/2023	528,168	521	360,877	342	863	1	863
7/5/2023	528,755	587	361,119	242	829	1	829
7/6/2023	529,281	526	361,420	301	827	1	827
7/7/2023	529,931	650	361,621	201	851	1	851
7/10/2023	530,546	615	361,951	330	945	3	315
7/11/2023	531,087	541	362,152	201	742	1	742
7/12/2023	531,689	602	362,417	265	867	1	867
7/13/2023	532,212	523	362,673	256	779	1	779
7/14/2023	532,701	489	363,015	342	831	1	831
7/17/2023	533,316	615	363,230	215	830	3	277
7/18/2023	533,840	524	363,528	298	822	1	822
7/19/2023	534,381	541	363,830	302	843	1	843
7/20/2023	535,021	640	364,172	342	982	1	982

Total Disharge: 273,581
Days: 384
Average GPD: 712

COASTAL engineering co.
TECHNICAL SERVICES

260 Cranberry Highway
Orleans, MA 02653
508.255.6511 P 508.255.6700 F
Orleans | Sandwich | Nantucket
coastalengineeringcompany.com

TRANSMITTAL

To: Brewster Town Hall
Board of Health Department
2198 Main St
Brewster, MA 02631

Date: 07/28/2023 **Project No.** C16845.07

Via: ☒ **1st Class Mail** ☐ **Pick up** ☐ **Certified** ☐ **Fed Ex**

Subject: Cape Cod Sea Camps
3057 Main Street
Brewster, MA
GWDP 977-0

☐ **Plans** ☐ **Copy of Letter** ☐ **Specifications** ☒ **Other**

We are sending the following items:

Copies	Date	No.	Description
1	06/2023	C16845.07	Daily Log Sheet (Not field-tested – Camp is Closed)
1	06/22/2023	C16845.07	Quarterly & Monthly Discharge Monitor Report (Not sampled – Camp is Closed)
1	07/28/2023	C16845.07	eDEP Electronic Receipt

These are transmitted as checked below:

☐ **for approval** ☒ **for your use** ☐ **as requested** ☐ **for review & comment** ☐

Remarks: Enclosed are the recent monthly reporting forms for the system at the above referenced location under GWDP 977-0. The laundry mat has been shut down since the camp closed. No flow or pH was able to be recorded and the distribution box was not sampled.

Please do not hesitate to contact us if you have any questions or comments.

JGS/acc

By: John G. Schnaible

Cc: plombardi@brewster-ma.gov

NOTE: If enclosures are not as noted, please contact us at (508) 255-6511

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Groundwater Discharge Program

Groundwater Permit

DAILY LOG SHEET

977
1. Permit Number

[redacted]
2. Tax identification Number

2023 JUN DAILY
3. Sampling Month & Frequency

C. Daily Readings/Analysis Information

Date	Effluent Flow GPD	Reuse Flow GPD	Irrigation Flow GPD	Turbidity	Influent pH	Effluent pH	Chlorine Residual (mg/l)	UV Intensity (%)
1	NS					NS		
2	NS					NS		
3	NS					NS		
4	NS					NS		
5	NS					NS		
6	NS					NS		
7	NS					NS		
8	NS					NS		
9	NS					NS		
10	NS					NS		
11	NS					NS		
12	NS					NS		
13	NS					NS		
14	NS					NS		
15	NS					NS		
16	NS					NS		
17	NS					NS		
18	NS					NS		
19	NS					NS		
20	NS					NS		
21	NS					NS		
22	NS					NS		
23	NS					NS		
24	NS					NS		
25	NS					NS		
26	NS					NS		
27	NS					NS		
28	NS					NS		
29	NS					NS		
30	NS					NS		
31								

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Groundwater Discharge Program

Groundwater Permit

MONITORING WELL DATA REPORT

977
1. Permit Number

[redacted]
2. Tax identification Number

2023 JUN MONTHLY
3. Sampling Month & Frequency

C. Contaminant Analysis Information

- For "0", below detection limit, less than (<) value, or not detected, enter "ND" <
- TNTC = too numerous to count. (Fecal results only)
- NS = Not Sampled
- DRY = Not enough water in well to sample.

Parameter/Contaminant LAUNDRY EFFLU	Units	Well #: 1	Well #: 2	Well #: 3	Well #: 4	Well #: 5	Well #: 6
TSS	MG/L	NS					
OIL & GREASE	MG/L	NS					
FOAMING AGENTS (MBAS)	MG/L	NS					

Receipt

Forms → Signature → Receipt

Summary/Receipt

print receipt Exit

Your submission is complete. Thank you for using DEP's online reporting system. You can select "My eDEP" to see a list of your transactions.

DEP Transaction ID: 1593509
Date and Time Submitted: 7/28/2023 9:25:12 AM
Other Email :

DEP Transaction ID: 1593509
Date and Time Submitted: 7/28/2023 9:25:12 AM
Other Email :

DEP Transaction ID: 1593509
Date and Time Submitted: 7/28/2023 9:25:12 AM
Other Email :

Form Name: Groundwater Discharge Monitoring Report Forms

Facility Information:
Tax Identification Number: 043070847
location: 3057 MAIN STREET
Address: BREWSTER
ZIP: 02631
Daily Log Sheet(2023 JUN DAILY)
Form Name: Groundwater Discharge Monitoring Report Forms

Facility Information:
Tax Identification Number: 043070847
location: 3057 MAIN STREET
Address: BREWSTER
ZIP: 02631
Monitoring Well Data Report(1 - 2023 Jun Monthly)
Form Name: Comments

My eDEP

COASTAL engineering co.
TECHNICAL SERVICES

260 Cranberry Highway
Orleans, MA 02653
508.255.6511 P 508.255.6700 F
Orleans | Sandwich | Nantucket
coastalengineeringcompany.com

TRANSMITTAL

To: Jacquelyn Linehan, Property Mgr.
King's Landing Apartments
1200 South State Street
Brewster, MA 02631
via email: jlinehan@poahcommunities.com

Date: 07/28/2023 **Project No.** WBR007.00
Via: ☒ **Email** ☐ **Pick up** ☐ **Certified** ☐ **Fed Ex**

Subject: King's Landing Apartments
3 State Street
Brewster, MA
Permit #934-1

☐ **Plans** ☐ **Copy of Letter** ☐ **Specifications** ☒ **Other**

We are sending the following items:

Copies	Date	No.	Description
1	06/2023	934-1	Daily Log Sheet
1	06/29/2023	934-1	Monthly Discharge Report w/Laboratory Test Results
1	06/22/2023	934-1	Monthly Monitoring Well Report (Field-tested Data)
1	07/28/2023	934-1	eDEP Electronic Receipt

These are transmitted as checked below:

☐ **for approval** ☒ **for your use** ☒ **as requested** ☐ **for review & comment** ☐

Remarks: Enclosed are the recent reporting forms for the wastewater treatment facility at the above-referenced location. Monthly test results also indicate high levels of Total Nitrogen that exceed the upper discharge limit (10 mg/L) due to elevated levels of TKN. We will adjust the system settings and use of process control chemicals to help improve treatment of the system. The average daily flow was approximately 10,037 gpd.

If you have any questions regarding this report or the WWTF, please do not hesitate to contact us.

cc: Brewster Board of Health
CC Commission
Joe Henderson, Horsley Witten Group, Inc. *(via email)*
AquaPoint.3 LLC

By: Chad A. Simmons, WWTPO

NOTE: If enclosures are not as noted, please contact us at (508) 255-6511

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Groundwater Discharge Program

Groundwater Permit

DAILY LOG SHEET

934
1. Permit Number

[redacted]
2. Tax identification Number

2023 JUN DAILY
3. Sampling Month & Frequency

C. Daily Readings/Analysis Information

Date	Effluent Flow GPD	Reuse Flow GPD	Irrigation Flow GPD	Turbidity	Influent pH	Effluent pH	Chlorine Residual (mg/l)	UV Intensity (%)
1	1,518				7.33	7.69		
2	5,931				7.12	7.58		
3	10,964							
4	11,278							
5	9,194				6.91	7.51		
6	9,961				6.79	7.67		
7	9,733				6.92	7.66		
8	9,525				6.87	7.72		
9	10,497				6.95	7.64		
10	9,802							
11	9,583							
12	10,034				7.03	7.61		
13	10,980				6.99	7.63		
14	9,443				6.91	7.55		
15	8,977				6.77	7.42		
16	10,038				6.81	7.44		
17	9,873							
18	8,872							
19	10,072				6.84	7.56		
20	9,800				6.83	7.58		
21	11,375				6.87	7.61		
22	9,669				6.82	7.58		
23	10,026				6.88	7.59		
24	10,928							
25	10,795							
26	12,353				6.93	7.51		
27	10,704				6.82	7.53		
28	9,330				6.84	7.54		
29	10,628				7.11	7.58		
30	9,104				7.02	7.60		
31								

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Groundwater Discharge Program

Groundwater Permit

DISCHARGE MONITORING REPORT

934
1. Permit Number

[redacted]
2. Tax identification Number

2023 JUN MONTHLY
3. Sampling Month & Frequency

D. Contaminant Analysis Information

- For "0", below detection limit, less than (<) value, or not detected, enter "ND"
- TNTC = too numerous to count. (Fecal results only)
- NS = Not Sampled

1. Parameter/Contaminant	2. Influent	3. Effluent	4. Effluent Method
Units			Detection limit
BOD	140	7.9	2.0
MG/L			
TSS	66	13	5.0
MG/L			
TOTAL SOLIDS	310		
MG/L			
AMMONIA-N	1.30		
MG/L			
NITRATE-N		1.9	0.10
MG/L			
TOTAL NITROGEN(NO3+NO2+TKN)		10.09	0.050
MG/L			
OIL & GREASE		ND	4.0
MG/L			

ANALYTICAL REPORT

Lab Number:	L2337341
Client:	Coastal Engineering Company 260 Cranberry Highway Route 6A Orleans, MA 02653
ATTN:	Chad Simmons
Phone:	(508) 255-6511
Project Name:	KINGS LANDING BREWSTER
Project Number:	WBR007.00
Report Date:	07/23/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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

Project Name: KINGS LANDING BREWSTER
Project Number: WBR007.00
Lab Number: L2337341
Report Date: 07/23/23

SAMPLE RESULTS

Lab ID: L2337341-01
Client ID: INFLUENT (COMPOSITE)
Sample Location: 3 STATE ROAD BREWSTER, MA
Sample Depth:
Matrix: Water

Date Collected: 06/29/23 08:00
Date Received: 06/29/23
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	310		mg/l	13	NA	1.3	-	07/05/23 03:52	121,2540B	DEW
Solids, Total Suspended	66.		mg/l	14	NA	2.9	-	07/05/23 17:21	121,2540D	REM
Nitrogen, Ammonia	1.30		mg/l	0.750	--	10	07/14/23 22:11	07/16/23 18:52	121,4500NH3-BH	AT
BOD, 5 day	140		mg/l	30	NA	15	06/30/23 23:49	07/05/23 19:00	121,5210B	JRG

Project Name: KINGS LANDING BREWSTER
Project Number: WBR007.00
Lab Number: L2337341
Report Date: 07/23/23

SAMPLE RESULTS

Lab ID: L2337341-02
Client ID: EFFLUENT (COMPOSITE)
Sample Location: 3 STATE ROAD BREWSTER, MA
Sample Depth:
Matrix: Water

Date Collected: 06/29/23 08:00
Date Received: 06/29/23
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	13.		mg/l	5.0	NA	1	-	07/05/23 17:21	121,2540D	REM
Nitrogen, Nitrite	0.27		mg/l	0.050	--	1	-	06/30/23 04:58	44,353.2	KAF
Nitrogen, Nitrate	1.9		mg/l	0.10	--	1	-	06/30/23 04:58	44,353.2	KAF
Nitrogen, Total Kjeldahl	7.92		mg/l	0.300	--	1	07/16/23 01:50	07/16/23 22:51	121,4500NH3-H	AT
BOD, 5 day	7.9		mg/l	2.0	NA	1	06/30/23 23:49	07/05/23 19:00	121,5210B	JRG

Project Name: KINGS LANDING BREWSTER
Project Number: WBR007.00
Lab Number: L2337341
Report Date: 07/23/23

SAMPLE RESULTS

Lab ID: L2337341-03
Client ID: EFFLUENT (GRAB)
Sample Location: 3 STATE ROAD BREWSTER, MA
Sample Depth:
Matrix: Water
Date Collected: 06/29/23 08:00
Date Received: 06/29/23
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	--	1	07/13/23 08:45	07/13/23 11:59	140,1664B	JGM

Project Name: KINGS LANDING BREWSTER
Project Number: WBR007.00
Lab Number: L2337341
Report Date: 07/23/23

SAMPLE RESULTS

Lab ID: L2337341-04
Client ID: PILOT INFLUENT
Sample Location: 3 STATE ROAD BREWSTER, MA
Sample Depth:
Matrix: Water

Date Collected: 06/29/23 08:00
Date Received: 06/29/23
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Ammonia	37.2		mg/l	1.50	--	20	07/18/23 20:51	07/19/23 12:11	121,4500NH3-BH	KEP
Nitrogen, Total Kjeldahl	53.5		mg/l	1.50	--	5	07/16/23 01:50	07/16/23 22:52	121,4500NH3-H	AT

Project Name: KINGS LANDING BREWSTER
Project Number: WBR007.00
Lab Number: L2337341
Report Date: 07/23/23

SAMPLE RESULTS

Lab ID: L2337341-05
Client ID: PILOT EFFLUENT
Sample Location: 3 STATE ROAD BREWSTER, MA
Date Collected: 06/29/23 08:00
Date Received: 06/29/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Ammonia	11.2		mg/l	0.150	--	2	07/18/23 20:51	07/19/23 12:12	121,4500NH3-BH	KEP
Nitrogen, Total Kjeldahl	23.9		mg/l	0.300	--	1	07/20/23 15:32	07/21/23 17:29	121,4500NH3-H	JRO

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — World Class Chemistry

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: 6/29/23

ALPHA Job #: L2337341

Client Information

Client: Coastal Engineering Co., Inc.
Address: 260 Cranberry Highway
Orleans, MA 02653
Phone: 508 255-6511
Fax: 508 255-6700
Email: csimmons@ceccapecod.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Kings Landing Brewster
Project Location: 3 State Road Brewster MA
Project #: WBR007.00
Project Manager: Chad A. Simmons
ALPHA Quote #: 2011601rev1

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

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	BOD5, TS	TSS	BOD5, NO2, NO3	NH3	TKN	Oil & Grease	TKN, NH3					Sample Specific Comments	TOTAL # BOTTLES
37341 01	Influent (Composite)	6/28-29	800-800	WW	CAS	☒	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
02	Effluent (Composite)	6/28-29	800-800	WW	CAS	☐	☒	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	
03	Effluernt (Grab)	6/29/23	0800	WW	CAS	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
04	Pilot Influent	6/29/23	0800	WW	CAS	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐	
05	Pilot Effluent	6/29/23	0800	WW	CAS	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Container Type						P	P	-	-	-	-	-	-	-	-	-	-	
Preservative						A	K	-	-	-	-	-	-	-	-	-	-	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Chad Simmons	6/29/23	W Lansdale	6/29/23 19:13
W Lansdale AAL	6/29/23 17:32	Lydia	6/29 1737

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.

FORM NO. 01-01(i) (rev. 5-JAN-12)

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Groundwater Discharge Program

Groundwater Permit

MONITORING WELL DATA REPORT

934
1. Permit Number

[redacted]
2. Tax identification Number

2023 ANNUAL
3. Sampling Month & Frequency

D. VOC Analysis Information

- If VOCs are present, please indicate the amounts of the individual compounds in µg/l.
- For "0", below detection limit, less than (<) value, or not detected, enter "ND"
- NS = Not Sampled
- DRY = Not enough water in well to sample.

Parameter/Contaminant	HW-1	HW-2	HW-3	HW-4		
Units	Well #: 1	Well #: 2	Well #: 3	Well #: 4	Well #: 5	Well #: 6
ACETONE UG/L	ND	ND	ND	ND		
BENZENE UG/L	ND	ND	ND	ND		
1,1 DICHLOROETHANE UG/L	ND	ND	ND	ND		
1,2 DICHLOROETHANE UG/L	ND	ND	ND	ND		
1,1 DICHLOROETHYLENE UG/L	ND	ND	ND	ND		
CIS-1,2-DICHLOROETHYLENE UG/L	ND	ND	ND	ND		
TRANS 1,2 DICHLOROETHYLENE UG/L	ND	ND	ND	ND		
ETHYL BENZENE UG/L	ND	ND	ND	ND		
METHYLENECHLORIDE UG/L	ND	ND	ND	ND		
TOLUENE UG/L	ND	ND	ND	ND		
O-XYLENE UG/L	ND	ND	ND	ND		
P/M XYLENE UG/L	ND	ND	ND	ND		
CARBON TETRACHLORIDE UG/L	ND	ND	ND	ND		
CHLOROFORM UG/L	ND	ND	ND	ND		
2-BUTANONE (MEK) UG/L	ND	ND	ND	ND		

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- For "0", below detection limit, less than (<) value, or not detected, enter "ND"
- NS = Not Sampled
- DRY = Not enough water in well to sample.

Parameter/Contaminant	HW-1	HW-2	HW-3	HW-4		
Units	Well #: 1	Well #: 2	Well #: 3	Well #: 4	Well #: 5	Well #: 6
4-METHYL-2-PENTANONE (MIBK) UG/L	ND	ND	ND	ND		
TRICHLOROETHYLENE UG/L	ND	ND	ND	ND		
TETRACHLOROETHYLENE UG/L	ND	ND	ND	ND		
1,1,1 TRICHLOROETHANE UG/L	ND	ND	ND	ND		
VINYLCHLORIDE UG/L	ND	ND	ND	ND		
STYRENE UG/L	ND	ND	ND	ND		
CHLOROBENZENE UG/L	ND	ND	ND	ND		
METHYL TERTIARY BUTYL ETHE UG/L	ND	ND	ND	ND		
CHLOROETHANE UG/L	ND	ND	ND	ND		
1,2-DICHLOROPROPANE UG/L	ND	ND	ND	ND		
DIBROMOCHLOROMETHANE UG/L	ND	ND	ND	ND		
1,1,2-TRICHLOROETHANE UG/L	ND	ND	ND	ND		
2-CHLOROETHYLVINYL ETHER UG/L	ND	ND	ND	ND		
BROMODICHLOROMETHANE UG/L	ND	ND	ND	ND		
BROMOFORM UG/L	ND	ND	ND	ND		

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- For "0", below detection limit, less than (<) value, or not detected, enter "ND"
- NS = Not Sampled
- DRY = Not enough water in well to sample.

Parameter/Contaminant	HW-1	HW-2	HW-3	HW-4		
Units	Well #: 1	Well #: 2	Well #: 3	Well #: 4	Well #: 5	Well #: 6
1,1,2,2-TETRACHLOROETHANE UG/L	ND	ND	ND	ND		
CHLOROMETHANE UG/L	ND	ND	ND	ND		
BROMOMETHANE UG/L	ND	ND	ND	ND		
CARBONDISULFIDE UG/L	ND	ND	ND	ND		
2-HEXANONE UG/L	ND	ND	ND	ND		
ACROLEIN UG/L	ND	ND	ND	ND		
ACRYLONITRILE UG/L	ND	ND	ND	ND		
TRANS-1,3-DICHLOROPROPENE UG/L	ND	ND	ND	ND		
CIS-1,3-DICHLOROPROPENE UG/L	ND	ND	ND	ND		

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Groundwater Discharge Program

Groundwater Permit

MONITORING WELL DATA REPORT

934
1. Permit Number

[redacted]
2. Tax identification Number

2023 QUARTERLY 2
3. Sampling Month & Frequency

C. Contaminant Analysis Information

- For "0", below detection limit, less than (<) value, or not detected, enter "ND" <
- TNTC = too numerous to count. (Fecal results only)
- NS = Not Sampled
- DRY = Not enough water in well to sample.

Parameter/Contaminant	HW-1	HW-2	HW-3	HW-4		
Units	Well #: 1	Well #: 2	Well #: 3	Well #: 4	Well #: 5	Well #: 6
NITRATE-N MG/L	2.6	2.2	0.78	DRY		
TOTAL NITROGEN(NO3+NO2+TKI MG/L	2.6	2.2	1.13	DRY		
TOTAL PHOSPHORUS AS P MG/L	0.919	0.074	0.279	DRY		
ORTHO PHOSPHATE MG/L	0.005	0.005	0.005	DRY		

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Groundwater Discharge Program

Groundwater Permit

MONITORING WELL DATA REPORT

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1. Permit Number

[redacted]
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2023 JUN MONTHLY
3. Sampling Month & Frequency

C. Contaminant Analysis Information

- For "0", below detection limit, less than (<) value, or not detected, enter "ND" <
- TNTC = too numerous to count. (Fecal results only)
- NS = Not Sampled
- DRY = Not enough water in well to sample.

Parameter/Contaminant	HW-1	HW-2	HW-3	HW-4		
Units	Well #: 1	Well #: 2	Well #: 3	Well #: 4	Well #: 5	Well #: 6
PH S.U.	6.04	5.88	5.67	DRY		
STATIC WATER LEVEL FEET	23.51	21.01	20.95	DRY		
SPECIFIC CONDUCTANCE UMHOS/C	800	450	640	DRY		

ANALYTICAL REPORT

Lab Number:	L2336200
Client:	Coastal Engineering Company 260 Cranberry Highway Route 6A Orleans, MA 02653
ATTN:	Chad Simmons
Phone:	(508) 255-6511
Project Name:	KINGS LANDING BREWSTER
Project Number:	WBR007.00
Report Date:	07/14/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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

ORGANICS

VOLATILES

Project Name: KINGS LANDING BREWSTER
Lab Number: L2336200
Project Number: WBR007.00
Report Date: 07/14/23

SAMPLE RESULTS

Lab ID: L2336200-01
Client ID: HW-1
Sample Location: 3 STATE ROAD BREWSTER, MA
Date Collected: 06/22/23 12:15
Date Received: 06/23/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 06/25/23 13:14
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Chloroform	ND		ug/l	1.0	--	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	1.0	--	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	ND		ug/l	1.0	--	1

Project Name: KINGS LANDING BREWSTER
Lab Number: L2336200
Project Number: WBR007.00
Report Date: 07/14/23

SAMPLE RESULTS

Lab ID: L2336200-01
Client ID: HW-1
Sample Location: 3 STATE ROAD BREWSTER, MA
Date Collected: 06/22/23 12:15
Date Received: 06/23/23
Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	98		60-140
Fluorobenzene	92		60-140
4-Bromofluorobenzene	100		60-140

Project Name: KINGS LANDING BREWSTER
Lab Number: L2336200
Project Number: WBR007.00
Report Date: 07/14/23

SAMPLE RESULTS

Lab ID: L2336200-02
Client ID: HW-2
Sample Location: 3 STATE ROAD BREWSTER, MA
Date Collected: 06/22/23 12:30
Date Received: 06/23/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 06/25/23 13:48
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Chloroform	ND		ug/l	1.0	--	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	1.0	--	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	ND		ug/l	1.0	--	1

Project Name: KINGS LANDING BREWSTER
Lab Number: L2336200
Project Number: WBR007.00
Report Date: 07/14/23

SAMPLE RESULTS

Lab ID: L2336200-02
Client ID: HW-2
Sample Location: 3 STATE ROAD BREWSTER, MA
Date Collected: 06/22/23 12:30
Date Received: 06/23/23
Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	97		60-140
Fluorobenzene	97		60-140
4-Bromofluorobenzene	101		60-140

Project Name: KINGS LANDING BREWSTER
Lab Number: L2336200
Project Number: WBR007.00
Report Date: 07/14/23

SAMPLE RESULTS

Lab ID: L2336200-03
Client ID: HW-3
Sample Location: 3 STATE ROAD BREWSTER, MA
Date Collected: 06/22/23 12:45
Date Received: 06/23/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 06/25/23 14:22
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Chloroform	ND		ug/l	1.0	--	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	1.0	--	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	ND		ug/l	1.0	--	1

Project Name: KINGS LANDING BREWSTER **Lab Number:** L2336200

Project Number: WBR007.00 **Report Date:** 07/14/23

SAMPLE RESULTS

Lab ID: L2336200-03 Date Collected: 06/22/23 12:45

Client ID: HW-3 Date Received: 06/23/23

Sample Location: 3 STATE ROAD BREWSTER, MA Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	97		60-140
Fluorobenzene	90		60-140
4-Bromofluorobenzene	99		60-140

Project Name: KINGS LANDING BREWSTER
Project Number: WBR007.00
Lab Number: L2336200
Report Date: 07/14/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 06/25/23 12:39
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1796084-4					
Methylene chloride	ND		ug/l	1.0	--
1,1-Dichloroethane	ND		ug/l	1.5	--
Chloroform	ND		ug/l	1.0	--
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	1.0	--
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	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: KINGS LANDING BREWSTER
Project Number: WBR007.00
Lab Number: L2336200
Report Date: 07/14/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 06/25/23 12:39
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1796084-4					
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	ND		ug/l	2.0	--
o-xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
Styrene	ND		ug/l	1.0	--
Acetone	ND		ug/l	10	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	10	--
Vinyl acetate	ND		ug/l	10	--
4-Methyl-2-pentanone	ND		ug/l	10	--
2-Hexanone	ND		ug/l	10	--
Acrolein	ND		ug/l	8.0	--
Acrylonitrile	ND		ug/l	10	--
Dibromomethane	ND		ug/l	1.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	99		60-140
Fluorobenzene	92		60-140
4-Bromofluorobenzene	100		60-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: KINGS LANDING BREWSTER

Project Number: WBR007.00

Lab Number: L2336200

Report Date: 07/14/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1796084-3								
Methylene chloride	100		-		60-140	-		28
1,1-Dichloroethane	100		-		50-150	-		49
Chloroform	110		-		70-135	-		54
Carbon tetrachloride	90		-		70-130	-		41
1,2-Dichloropropane	100		-		35-165	-		55
Dibromochloromethane	85		-		70-135	-		50
1,1,2-Trichloroethane	100		-		70-130	-		45
2-Chloroethylvinyl ether	95		-		1-225	-		71
Tetrachloroethene	95		-		70-130	-		39
Chlorobenzene	90		-		65-135	-		53
Trichlorofluoromethane	105		-		50-150	-		84
1,2-Dichloroethane	100		-		70-130	-		49
1,1,1-Trichloroethane	85		-		70-130	-		36
Bromodichloromethane	90		-		65-135	-		56
trans-1,3-Dichloropropene	75		-		50-150	-		86
cis-1,3-Dichloropropene	85		-		25-175	-		58
Bromoform	75		-		70-130	-		42
1,1,2,2-Tetrachloroethane	100		-		60-140	-		61
Benzene	100		-		65-135	-		61
Toluene	100		-		70-130	-		41
Ethylbenzene	90		-		60-140	-		63
Chloromethane	110		-		1-205	-		60
Bromomethane	90		-		15-185	-		61

Lab Control Sample Analysis

Batch Quality Control

Project Name: KINGS LANDING BREWSTER

Project Number: WBR007.00

Lab Number: L2336200

Report Date: 07/14/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1796084-3								
Vinyl chloride	140		-		5-195	-		66
Chloroethane	120		-		40-160	-		78
1,1-Dichloroethene	100		-		50-150	-		32
trans-1,2-Dichloroethene	95		-		70-130	-		45
cis-1,2-Dichloroethene	105		-		60-140	-		30
Trichloroethene	90		-		65-135	-		48
1,2-Dichlorobenzene	90		-		65-135	-		57
1,3-Dichlorobenzene	90		-		70-130	-		43
1,4-Dichlorobenzene	90		-		65-135	-		57
p/m-Xylene	95		-		60-140	-		30
o-xylene	90		-		60-140	-		30
Styrene	90		-		60-140	-		30
Acetone	114		-		40-160	-		30
Carbon disulfide	90		-		60-140	-		30
2-Butanone	124		-		60-140	-		30
Vinyl acetate	115		-		60-140	-		30
4-Methyl-2-pentanone	108		-		60-140	-		30
2-Hexanone	106		-		60-140	-		30
Acrolein	110		-		60-140	-		30
Acrylonitrile	108		-		60-140	-		60
Dibromomethane	95		-		70-130	-		30

INORGANICS
&
MISCELLANEOUS

Project Name: KINGS LANDING BREWSTER
Project Number: WBR007.00
Lab Number: L2336200
Report Date: 07/14/23

SAMPLE RESULTS

Lab ID: L2336200-01
Client ID: HW-1
Sample Location: 3 STATE ROAD BREWSTER, MA
Sample Depth:
Matrix: Water
Date Collected: 06/22/23 12:15
Date Received: 06/23/23
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Nitrite	ND		mg/l	0.050	--	1	-	06/24/23 04:28	44,353.2	KAF
Nitrogen, Nitrate	2.6		mg/l	0.10	--	1	-	06/24/23 04:28	44,353.2	KAF
Nitrogen, Total Kjeldahl	ND		mg/l	0.300	--	1	07/13/23 22:32	07/14/23 14:27	121,4500NH3-H	AVT
Phosphorus, Total	0.919		mg/l	0.050	--	5	07/11/23 09:21	07/11/23 14:58	121,4500P-E	EYA
Phosphorus, Orthophosphate	0.005		mg/l	0.005	--	1	-	06/24/23 09:24	121,4500P-E	KAF

Project Name: KINGS LANDING BREWSTER
Project Number: WBR007.00
Lab Number: L2336200
Report Date: 07/14/23

SAMPLE RESULTS

Lab ID: L2336200-02
Client ID: HW-2
Sample Location: 3 STATE ROAD BREWSTER, MA
Sample Depth:
Matrix: Water

Date Collected: 06/22/23 12:30
Date Received: 06/23/23
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Nitrite	ND		mg/l	0.050	--	1	-	06/24/23 04:30	44,353.2	KAF
Nitrogen, Nitrate	2.2		mg/l	0.10	--	1	-	06/24/23 04:30	44,353.2	KAF
Nitrogen, Total Kjeldahl	ND		mg/l	0.300	--	1	07/13/23 22:32	07/14/23 14:28	121,4500NH3-H	AVT
Phosphorus, Total	0.074		mg/l	0.010	--	1	07/11/23 09:21	07/11/23 15:02	121,4500P-E	EYA
Phosphorus, Orthophosphate	0.005		mg/l	0.005	--	1	-	06/24/23 09:25	121,4500P-E	KAF

Project Name: KINGS LANDING BREWSTER
Project Number: WBR007.00
Lab Number: L2336200
Report Date: 07/14/23

SAMPLE RESULTS

Lab ID: L2336200-03
Client ID: HW-3
Sample Location: 3 STATE ROAD BREWSTER, MA
Sample Depth:
Matrix: Water

Date Collected: 06/22/23 12:45
Date Received: 06/23/23
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Nitrite	ND		mg/l	0.050	--	1	-	06/24/23 04:31	44,353.2	KAF
Nitrogen, Nitrate	0.78		mg/l	0.10	--	1	-	06/24/23 04:31	44,353.2	KAF
Nitrogen, Total Kjeldahl	0.352		mg/l	0.300	--	1	07/13/23 22:32	07/14/23 14:29	121,4500NH3-H	AVT
Phosphorus, Total	0.279		mg/l	0.010	--	1	07/11/23 09:21	07/11/23 15:03	121,4500P-E	EYA
Phosphorus, Orthophosphate	0.005		mg/l	0.005	--	1	-	06/24/23 09:25	121,4500P-E	KAF

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 6/23/24

ALPHA Job #: L2336200

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

Project Information

Project Name: Kings Landing Brewster

Project Location: 3 State Road Brewster MA

Project #: WBR007.00

Project Manager: Chad A. Simmons

ALPHA Quote #: 2011601rev1

Report Information - Data Deliverables

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?

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

Client Information

ent: Coastal Engineering Co., Inc.

dress: 260 Cranberry Highway

Orleans, MA 02653

one: 508 255-6511

: 508 255-6700

ail: csimmons@ceccapecod.com

These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

ner Project Specific Requirements/Comments/Detection Limits:

cific Conductance:

ANALYSIS

SAMPLE HANDLING

Filtration
☐ Done
☐ Not Needed
☐ Lab to do

Preservation
☐ Lab to do

(Please specify below)

TOTAL # BOTTLES

HA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	NO2, NO3, Orthophosphate	TKN, TP	VOC-EPA 624	Sample Specific Comments
2336201	HW-1	06/22/23	12:15PM	GW	ACC	☒	☒	☒	
02	HW-2	06/22/23	12:30PM	GW	ACC	☒	☒	☒	
03	HW-3	06/22/23	12:45PM	GW	ACC	☒	☒	☒	
	HW-4	DRY	DRY	DRY	ACC				

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

SE ANSWER QUESTIONS ABOVE!

YOUR PROJECT MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	06/23/23	W. Ramsdell, ALPHA	6/23/24 1300
W. Ramsdell, ALPHA	6/23/23 1733		0623 1733

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.

Receipt

Forms → Signature → Receipt

Summary/Receipt

print receipt Exit

Your submission is complete. Thank you for using DEP's online reporting system. You can select "My eDEP" to see a list of your transactions.

DEP Transaction ID: 1593479
Date and Time Submitted: 7/28/2023 8:51:26 AM
Other Email :

DEP Transaction ID: 1593479
Date and Time Submitted: 7/28/2023 8:51:26 AM
Other Email :

DEP Transaction ID: 1593479
Date and Time Submitted: 7/28/2023 8:51:26 AM
Other Email :

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Other Email :

DEP Transaction ID: 1593479
Date and Time Submitted: 7/28/2023 8:51:26 AM
Other Email :

DEP Transaction ID: 1593479
Date and Time Submitted: 7/28/2023 8:51:26 AM
Other Email :

Form Name: Groundwater Discharge Monitoring Report Forms

Facility Information:
Tax Identification Number: 352432096
location: 3 STATE STREET
Address: BREWSTER
ZIP: 02631
Daily Log Sheet(2023 JUN DAILY)
Form Name: Groundwater Discharge Monitoring Report Forms

Facility Information:
Tax Identification Number: 352432096
location: 3 STATE STREET
Address: BREWSTER
ZIP: 02631
Discharge Monitoring Report(1 - 2023 Jun Monthly)
Form Name: Groundwater Discharge Monitoring Report Forms

Facility Information:
Tax Identification Number: 352432096
location: 3 STATE STREET
Address: BREWSTER
ZIP: 02631
Monitoring Well Data Report - VOC(1 - 2023 Annual)
Monitoring Well Data Report - VOC(2 - 2023 Annual)
Monitoring Well Data Report - VOC(3 - 2023 Annual)
Form Name: Groundwater Discharge Monitoring Report Forms

Facility Information:
Tax Identification Number: 352432096
location: 3 STATE STREET
Address: BREWSTER
ZIP: 02631
Form Name: Groundwater Discharge Monitoring Report Forms

Facility Information:
Tax Identification Number: 352432096
location: 3 STATE STREET
Address: BREWSTER
ZIP: 02631
Monitoring Well Data Report(1 - 2023 Quarterly 2)
Monitoring Well Data Report(1 - 2023 Jun Monthly)
Form Name: Comments

My eDEP

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Massachusetts Department of Environmental Protection

eDEP Transaction Copy

Here is the file you requested for your records.

To retain a copy of this file you must save and/or print.

Username:	**SFARRENKOPF**
Transaction ID:	**1597440**
Document:	**Groundwater Discharge Monitoring Report Forms**
Size of File:	**1081.27K**
Status of Transaction:	**In Process**
Date and Time Created:	**8/9/2023:11:32:26 AM**

Note: This file only includes forms that were part of your transaction as of the date and time indicated above. If you need a more current copy of your transaction, return to eDEP and select to “Download a Copy” from the Current Submittals page.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Groundwater Discharge Program

Groundwater Permit

DAILY LOG SHEET

746
1. Permit Number

[redacted]
2. Tax identification Number

2023 JUL DAILY
3. Sampling Month & Frequency

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

A. Facility Information

1. Facility name, address:

PLEASANT BAY HEALTH CTR
a. Name

383 SOUTH ORLEANS ROAD
b. Street Address

BREWSTER | MA | 02631
c. City | d. State | e. Zip Code

2. Contact information:

JOSEPH SMITH
a. Name of Facility Contact Person

7742125005 | jsmith@nsuwater.com
b. Telephone Number | c. e-mail address

3. Sampling information:

7/1/2023 | NOT APPLICABLE
a. Date Sampled (mm/dd/yyyy) | b. Laboratory Name

BEA/NSU WWTO PERSONNEL
c. Analysis Performed By (Name)

B. Form Selection

1. Please select Form Type and Sampling Month & Frequency

Daily Log Sheet - 2023 Jul Daily

☐ All forms for submittal have been completed.

2. ☐ This is the last selection.

3. ☐ Delete the selected form.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Groundwater Discharge Program

Groundwater Permit

DAILY LOG SHEET

746
1. Permit Number

[redacted]
2. Tax identification Number

2023 JUL DAILY
3. Sampling Month & Frequency

C. Daily Readings/Analysis Information

Date	Effluent Flow GPD	Reuse Flow GPD	Irrigation Flow GPD	Turbidity	Influent pH	Effluent pH	Chlorine Residual (mg/l)	UV Intensity (%)
1	9815							
2	9815							
3	11981					7.2		66.6
4	11981							
5	8075					7.2		66.6
6	16533					7.2		74.2
7	10765					7.0		74.3
8	10765							
9	10765							
10	10729					7.1		66.6
11	11718					7.0		66.8
12	10354					7.0		66.5
13	14764					7.0		66.6
14	9693					7.0		74.2
15	9693							
16	9693							
17	8593					6.9		74.2
18	11195					7.1		69.1
19	12558					7.2		66.5
20	6748					7.0		66.5
21	10096					7.0		69.1
22	10096							
23	10096							
24	10451					7.0		66.5
25	10151					7.1		66.5
26	14997					7.1		69.1
27	5991					7.0		66.6
28	10090					7.1		66.6
29	10090							
30	10090							
31	9627					7.0		76.8

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Groundwater Discharge Program

Groundwater Permit

DISCHARGE MONITORING REPORT

746
1. Permit Number

[redacted]
2. Tax identification Number

2023 JUL MONTHLY
3. Sampling Month & Frequency

A. Facility Information

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

1. Facility name, address:

PLEASANT BAY HEALTH CTR
a. Name

383 SOUTH ORLEANS ROAD
b. Street Address

BREWSTER | MA | 02631
c. City | d. State | e. Zip Code

2. Contact information:

JOSEPH SMITH
a. Name of Facility Contact Person

7742125005 | jsmith@nsuwater.com
b. Telephone Number | c. e-mail address

3. Sampling information:

7/13/2023 | ALPHA ANALYTICAL
a. Date Sampled (mm/dd/yyyy) | b. Laboratory Name

ALPHA ANALYTICAL PERSONNEL
c. Analysis Performed By (Name)

B. Form Selection

1. Please select Form Type and Sampling Month & Frequency

Discharge Monitoring Report - 2023 Jul Monthly

☐ All forms for submittal have been completed.

2. ☐ This is the last selection.

3. ☐ Delete the selected form.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Groundwater Discharge Program

Groundwater Permit

DISCHARGE MONITORING REPORT

746
1. Permit Number

[redacted]
2. Tax identification Number

2023 JUL MONTHLY
3. Sampling Month & Frequency

D. Contaminant Analysis Information

- For "0", below detection limit, less than (<) value, or not detected, enter "ND"
- TNTC = too numerous to count. (Fecal results only)
- NS = Not Sampled

1. Parameter/Contaminant	2. Influent	3. Effluent	4. Effluent Method
Units			Detection limit
BOD	120	ND	2.0
MG/L			
TSS	92	ND	5.0
MG/L			
TOTAL SOLIDS	300	220	13
MG/L			
AMMONIA-N	14.3		
MG/L			
NITRATE-N		1.5	0.10
MG/L			
TOTAL NITROGEN(NO3+NO2+TKN)		2.14	0.450
MG/L			
OIL & GREASE		ND	3.6
MG/L			
FECAL COLIFORM		ND	2.0
/100 ML			
CHLORIDE		50	1.0
MG/L			

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Groundwater Discharge Program

Groundwater Permit

MONITORING WELL DATA REPORT

746
1. Permit Number

[redacted]
2. Tax identification Number

2023 JUL MONTHLY
3. Sampling Month & Frequency

A. Facility Information

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

1. Facility name, address:

PLEASANT BAY HEALTH CTR
a. Name

383 SOUTH ORLEANS ROAD
b. Street Address

BREWSTER | MA | 02631
c. City | d. State | e. Zip Code

2. Contact information:

JOSEPH SMITH
a. Name of Facility Contact Person

7742125005 | jsmith@nsuwater.com
b. Telephone Number | c. e-mail address

3. Sampling information:

7/21/2023 | NOT APPLICABLE
a. Date Sampled (mm/dd/yyyy) | b. Laboratory Name

BEA/NSU WWTO PERSONNEL
c. Analysis Performed By (Name)

B. Form Selection

1. Please select Form Type and Sampling Month & Frequency

Monitoring Well Data Report - 2023 Jul Monthly

☐ All forms for submittal have been completed.

2. ☑ This is the last selection.

3. ☐ Delete the selected form.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Groundwater Discharge Program

Groundwater Permit

MONITORING WELL DATA REPORT

746
1. Permit Number

[redacted]
2. Tax identification Number

2023 JUL MONTHLY
3. Sampling Month & Frequency

C. Contaminant Analysis Information

- For "0", below detection limit, less than (<) value, or not detected, enter "ND" <
- TNTC = too numerous to count. (Fecal results only)
- NS = Not Sampled
- DRY = Not enough water in well to sample.

Parameter/Contaminant		DG-1	DG-2	DG-4	UG-1		
	Units	Well #: 1	Well #: 2	Well #: 3	Well #: 4	Well #: 5	Well #: 6
PH	S.U.	6.04	6.42	6.81	6.55		
STATIC WATER LEVEL	FEET	11.94	12.05	11.98	12.24		
SPECIFIC CONDUCTANCE	UMHOS/C	122	275	358	178		

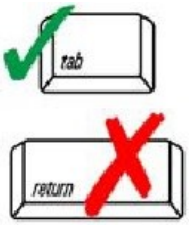
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Groundwater Discharge Program

Groundwater Permit

746
1. Permit Number

[redacted]
2. Tax identification Number

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Any person signing a document under 314 CMR 5.14(1) or (2) shall make the following certification

If you are filing electronic-ally and want to attach additional comments, select the check box.

☐

Facility Information

PLEASANT BAY HEALTH CTR
a. Name

383 SOUTH ORLEANS ROAD
b. Street Address

BREWSTER	MA	02631
c. City	d. State	e. Zip Code

Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that ther are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

SAMANTHA FARRENKOPF	8/9/2023
a. Signature	b. Date (mm/dd/yyyy)

Reporting Package Comments

BENNETT ENVIRONMENTAL ASSOCIATES, LLC. (BEA) HAS COMPLETED THE JULY 2023 MONTHLY INFLUENT AND EFFLUENT SAMPLING OF THE AMPHIDROME WASTEWATER TREATMENT SYSTEM. MONTHLY WASTEWATER SAMPLING WAS COMPLETED ON 7/13/23. LABORATORY RESULTS REPORTED ALL PARAMETERS WITHIN DISCHARGE PERMIT LIMITATIONS. EFFLUENT PH WAS REPORTED WITHIN THE 6.5-8.5 RANGE THROUGHOUT THE MONTH. FLOW VOLUME MEASUREMENTS WERE ASSESSED DURING THE MONTH FROM THE SYSTEM'S EFFLUENT FLOW METER. DAILY FLOW REMAINED WITHIN THE 26,500-GPD LIMITATION THROUGHOUT THE MONTH. THE MINIMUM, MAXIMUM AND AVERAGE GPD FLOWS REPORTED OVER THE COURSE OF THE MONTH WERE 5,991 GPD, 16,533 GPD AND 10,606 GPD, RESPECTIVELY.

ANALYTICAL REPORT

Lab Number:	L2340203
Client:	Bennett Environmental Associates 1573 Main Street Brewster, MA 02631
ATTN:	Joseph Smith
Phone:	(508) 896-1706
Project Name:	PLEASANT BAY
Project Number:	K47810DA.S.WW.700
Report Date:	07/27/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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

Project Name: PLEASANT BAY
Project Number: K47810DA.S.WW.700

Lab Number: L2340203
Report Date: 07/27/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2340203-01	INFLUENT	WATER	BREWSTER, MA	07/13/23 14:40	07/13/23
L2340203-02	EFFLUENT	WATER	BREWSTER, MA	07/13/23 14:30	07/13/23
L2340203-03	EFFLUENT	WATER	BREWSTER, MA	07/13/23 14:30	07/13/23

Project Name:	PLEASANT BAY	**Lab Number:**	L2340203
Project Number:	K47810DA.S.WW.700	**Report Date:**	07/27/23

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name:	PLEASANT BAY	**Lab Number:**	L2340203
Project Number:	K47810DA.S.WW.700	**Report Date:**	07/27/23

Case Narrative (continued)

Coliform, Fecal (MF)

L2340203-03: The sample has an elevated detection limit due to the dilution required by the method.

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: 07/27/23

INORGANICS
&
MISCELLANEOUS

Project Name: PLEASANT BAY
Project Number: K47810DA.S.WW.700

Lab Number: L2340203
Report Date: 07/27/23

SAMPLE RESULTS

Lab ID: L2340203-01
Client ID: INFLUENT
Sample Location: BREWSTER, MA

Date Collected: 07/13/23 14:40
Date Received: 07/13/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	300		mg/l	13	NA	1.3	-	07/19/23 04:37	121,2540B	DEW
Solids, Total Suspended	92.		mg/l	14	NA	2.7	-	07/18/23 13:14	121,2540D	NGS
Nitrogen, Ammonia	14.3		mg/l	0.375	--	5	07/25/23 14:33	07/25/23 23:03	121,4500NH3-BH	AVT
BOD, 5 day	120		mg/l	30	NA	15	07/14/23 23:23	07/19/23 18:07	121,5210B	JRG

Project Name: PLEASANT BAY
Project Number: K47810DA.S.WW.700
Lab Number: L2340203
Report Date: 07/27/23

SAMPLE RESULTS

Lab ID: L2340203-02
Client ID: EFFLUENT
Sample Location: BREWSTER, MA
Sample Depth:
Matrix: Water

Date Collected: 07/13/23 14:30
Date Received: 07/13/23
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	220		mg/l	13	NA	1.3	-	07/19/23 04:37	121,2540B	DEW
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	07/18/23 13:14	121,2540D	NGS
Chloride	50.		mg/l	1.0	--	1	-	07/25/23 20:46	121,4500CL-E	TLH
Nitrogen, Nitrite	ND		mg/l	0.050	--	1	-	07/14/23 04:47	44,353.2	KAF
Nitrogen, Nitrate	1.5		mg/l	0.10	--	1	-	07/14/23 04:55	44,353.2	KAF
Nitrogen, Total Kjeldahl	0.640		mg/l	0.300	--	1	07/23/23 21:56	07/25/23 17:58	121,4500NH3-H	AT
BOD, 5 day	ND		mg/l	2.0	NA	1	07/14/23 23:23	07/19/23 18:07	121,5210B	JRG
Oil & Grease, Hem-Grav	ND		mg/l	3.6	--	.9	07/26/23 21:47	07/27/23 00:24	140,1664B	QJM

Project Name: PLEASANT BAY
Project Number: K47810DA.S.WW.700

Lab Number: L2340203
Report Date: 07/27/23

SAMPLE RESULTS

Lab ID: L2340203-03
Client ID: EFFLUENT
Sample Location: BREWSTER, MA

Date Collected: 07/13/23 14:30
Date Received: 07/13/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
Coliform, Fecal (MF)	ND		col/100ml	2.0	NA	2	-	07/13/23 18:58	121,9222D	DRV

Project Name: PLEASANT BAY
Project Number: K47810DA.S.WW.700
Lab Number: L2340203
Report Date: 07/27/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab for sample(s): 03 Batch: WG1803060-1										
Coliform, Fecal (MF)	ND		col/100ml	1.0	NA	1	-	07/13/23 18:58	121,9222D	DRV
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1803117-1										
Nitrogen, Nitrite	ND		mg/l	0.050	--	1	-	07/14/23 02:26	44,353.2	KAF
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1803121-1										
Nitrogen, Nitrate	ND		mg/l	0.10	--	1	-	07/14/23 02:31	44,353.2	KAF
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1803549-1										
BOD, 5 day	ND		mg/l	2.0	NA	1	07/14/23 23:23	07/19/23 18:07	121,5210B	JRG
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1804630-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	07/18/23 13:14	121,2540D	NGS
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1804824-1										
Solids, Total	ND		mg/l	10	NA	1	-	07/19/23 04:37	121,2540B	DEW
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1806673-1										
Nitrogen, Total Kjeldahl	ND		mg/l	0.300	--	1	07/23/23 21:56	07/25/23 17:52	121,4500NH3-H	AT
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1807429-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	07/25/23 14:33	07/25/23 22:37	121,4500NH3-BH	AVT
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1807581-1										
Chloride	ND		mg/l	1.0	--	1	-	07/25/23 20:18	121,4500CL-E	TLH
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1808163-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	--	1	07/26/23 18:35	07/26/23 22:52	140,1664B	QJM

Lab Control Sample Analysis

Batch Quality Control

Project Name: PLEASANT BAY
Project Number: K47810DA.S.WW.700

Lab Number: L2340203
Report Date: 07/27/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1803117-2								
Nitrogen, Nitrite	92		-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1803121-2								
Nitrogen, Nitrate	98		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1803549-2								
BOD, 5 day	97		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1804630-2								
Solids, Total Suspended	88		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1804824-2								
Solids, Total	93		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1806673-2								
Nitrogen, Total Kjeldahl	83		-		78-122	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1807429-2								
Nitrogen, Ammonia	86		-		80-120	-		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: PLEASANT BAY

Project Number: K47810DA.S.WW.700

Lab Number: L2340203

Report Date: 07/27/23

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1807581-2					
Chloride	100	-	90-110	-	
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1808163-2					
Oil & Grease, Hem-Grav	84	-	78-114	-	18

Matrix Spike Analysis
Batch Quality Control

Project Name: PLEASANT BAY
Project Number: K47810DA.S.WW.700

Lab Number: L2340203
Report Date: 07/27/23

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): 02 QC Batch ID: WG1803117-4 QC Sample: L2340190-01 Client ID: MS Sample												
Nitrogen, Nitrite	0.29	4	4.3	100		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1803121-4 QC Sample: L2340190-01 Client ID: MS Sample												
Nitrogen, Nitrate	14	4	18	100		-	-		83-113	-		6
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1803549-4 QC Sample: L2340460-01 Client ID: MS Sample												
BOD, 5 day	ND	100	180	**182**	Q	-	-		50-145	-		35
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1806673-4 QC Sample: L2340318-02 Client ID: MS Sample												
Nitrogen, Total Kjeldahl	0.427	8	6.70	78		-	-		77-111	-		24
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1807429-4 QC Sample: L2340318-02 Client ID: MS Sample												
Nitrogen, Ammonia	0.092	4	3.64	89		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1807581-4 QC Sample: L2340178-01 Client ID: MS Sample												
Chloride	6.9	20	29	110		-	-		58-140	-		7
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1808163-4 QC Sample: L2322975-73 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	38.1	12	**31**	Q	-	-		78-114	-		18

Lab Duplicate Analysis

Batch Quality Control

Project Name: PLEASANT BAY
Project Number: K47810DA.S.WW.700

Lab Number: L2340203
Report Date: 07/27/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1803117-3 QC Sample: L2340190-01 Client ID: DUP Sample						
Nitrogen, Nitrite	0.29	0.28	mg/l	4		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1803121-3 QC Sample: L2340190-01 Client ID: DUP Sample						
Nitrogen, Nitrate	14	14	mg/l	0		6
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1803549-3 QC Sample: L2340460-01 Client ID: DUP Sample						
BOD, 5 day	ND	ND	mg/l	NC		35
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1804630-3 QC Sample: L2340354-02 Client ID: DUP Sample						
Solids, Total Suspended	500	380	mg/l	27		32
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1804630-4 QC Sample: L2340489-02 Client ID: DUP Sample						
Solids, Total Suspended	360	430	mg/l	18		32
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1804824-3 QC Sample: L2339832-01 Client ID: DUP Sample						
Solids, Total	650	630	mg/l	3		16
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1806673-3 QC Sample: L2340318-02 Client ID: DUP Sample						
Nitrogen, Total Kjeldahl	0.427	0.515	mg/l	19		24
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1807429-3 QC Sample: L2340318-02 Client ID: DUP Sample						
Nitrogen, Ammonia	0.092	0.117	mg/l	**23**	Q	20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1807581-3 QC Sample: L2340178-01 Client ID: DUP Sample						
Chloride	6.9	7.0	mg/l	1		7

Lab Duplicate Analysis

Batch Quality Control

Project Name: PLEASANT BAY

Project Number: K47810DA.S.WW.700

Lab Number: L2340203

Report Date: 07/27/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1808163-3 QC Sample: L2322975-72 Client ID: DUP Sample					
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC	18

Project Name: PLEASANT BAY
Project Number: K47810DA.S.WW.700

Lab Number: L2340203
Report Date: 07/27/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
C	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2340203-01A	Plastic 500ml H2SO4 preserved	C	<2	<2	3.2	Y	Absent		NH3-4500(28)
L2340203-01B	Plastic 950ml unpreserved	C	7	7	3.2	Y	Absent		TSC-2540(7),BOD-5210(2)
L2340203-01C	Plastic 950ml unpreserved	C	7	7	3.2	Y	Absent		TSS-2540(7)
L2340203-02A	Plastic 500ml H2SO4 preserved	C	<2	<2	3.2	Y	Absent		TKN-4500(28)
L2340203-02B	Plastic 950ml unpreserved	C	7	7	3.2	Y	Absent		TSC-2540(7),CL-4500(28),NO2-353(2),NO3-353(2),BOD-5210(2)
L2340203-02C	Plastic 950ml unpreserved	C	7	7	3.2	Y	Absent		TSS-2540(7)
L2340203-02D	Amber 1000ml HCl preserved	C	NA		3.2	Y	Absent		OG-1664(28)
L2340203-02E	Amber 1000ml HCl preserved	C	NA		3.2	Y	Absent		OG-1664(28)
L2340203-03A	Bacteria Cup Na2S2O3 preserved	C	NA		3.2	Y	Absent		F-COLI-MF(.33)
L2340203-03B	Bacteria Cup Na2S2O3 preserved	C	NA		3.2	Y	Absent		F-COLI-MF(.33)

*Values in parentheses indicate holding time in days

Project Name:	PLEASANT BAY	**Lab Number:**	L2340203
Project Number:	K47810DA.S.WW.700	**Report Date:**	07/27/23

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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.

Report Format: Data Usability Report

Project Name:	PLEASANT BAY	**Lab Number:**	L2340203
Project Number:	K47810DA.S.WW.700	**Report Date:**	07/27/23

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

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.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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 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.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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.

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

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

Report Format: Data Usability Report

Project Name:	PLEASANT BAY	**Lab Number:**	L2340203
Project Number:	K47810DA.S.WW.700	**Report Date:**	07/27/23

Data Qualifiers

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

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.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: Data Usability Report

Project Name:	PLEASANT BAY	**Lab Number:**	L2340203
Project Number:	K47810DA.S.WW.700	**Report Date:**	07/27/23

REFERENCES

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

140 Method 1664,Revision B: 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-10-001, February 2010.

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 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
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: Chloride, 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, SM4500NO2-B**
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: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, 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 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

Serial_No:07272316:12

L2340203

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: 7/13/23

ALPHA Job #: L233[illegible]

Project Information

Project Name: Pleasant Bay

Project Location: Brewster, MA

Project #: K47810DA.S.WW.700

Project Manager: Joseph Smith

ALPHA Quote #:

Client Information

Client: Bennett Environmental Associates

Address: 1573 Main Street

Brewster, MA 02631

Phone: 508-896-1706

Fax: 508-896-5109

Email: sfarrenkopf@NSUWater.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 #: 47810DA.S

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Other Project Specific Requirements/Comments/Detection Limits:

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	BOD, TS	NH3	TSS	BOD, TS, Nitrate, Nitrite, Chloride	Oil & Grease	TKN	Fecal Coliform						Sample Specific Comments	TOTAL # BOTTLES
10203 01	Influent	7/13/23	1440	WW	JCS	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐		3
02	Effluent	7/13/23	1430	WW	JCS	☐	☐	☒	☒	☒	☒	☐	☐	☐	☐	☐	☐		5
03	Effluent	7/13/23	1430	WW	JCS	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐		2
	Container Type					P	P	P	P	A	P	B	-	-	-	-	-		
	Preservative					O	D	O	O	B	D	H	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	7/13/23 1500	Ye Nang AAL	7/13/23 14:5[illegible]
Ye Nang AAL	7/13/23 17:32	[signature]	7/13 1732

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.

FORM NO: 01-01(I-NJ) (rev. 29-APR-09)