



May 31, 2017

Ms. Suzanne Warner
EPA New England
1 Congress Street, Suite 1100
Boston, MA 02114

Subject: NOI-Dewatering Permit
Easton Mobile Homes Sewer Repair
305 Turnpike Street, Easton, MA
CEC Project 165-173

Dear Ms. Warner:

On behalf of Easton MHC, LLC, Civil & Environmental Consultants, Inc. (CEC), has prepared this Notice of Intent (NOI) for coverage under the National Pollutant Discharge Elimination System (NPDES) Dewatering General Permit (DGP) (MAG070000). This NOI was prepared in accordance with the general requirements of the NPDES and related guidance documentation provided by the US Environmental Protection Agency (EPA). The completed NOI form is provided in Appendix A along with supplemental information that is provided in Appendix B & C. CHA Consulting Inc. is the civil engineering firm that is completing the civil design, local permitting, etc.

In the section of the report entitled "Coverage Under NPDES" we are requesting a waiver in the required range of discharge for pH based on background conditions as we discussed over the telephone a few weeks ago and as per Section 1.3(2) of the NPDES General Permits for Dewatering.

Site Information

This NOI has been prepared for the management of groundwater generated during the construction of new sewer laterals and a new pump station located at Easton Mobile Home Park located at 305 Turnpike Street in Easton, MA. Please refer to Figure 1 for a locus map and the discharge location. The discharge will be to a wetland area which overlies a drinking water source area that is considered a Class A receiving water.

Work Summary

The proposed project has been designed to repair, replace and/or upgrade the existing subsurface sewer system in the southeastern portion of the property and will occur within the local 50-foot inner "No Disturb Zone", the 100-foot buffer zone to BVW/IVW as well as within BLSF. Proposed work includes installation of the new subsurface sewer mains and repairs to portions of the existing system (See Appendix D – Project Plans). Isolated sections of existing gravity sewer

conveyance lines will be removed and replaced, as applicable, to eliminate adverse conditions such as infiltration, line sag points, and root intrusion. Some of these sections will also be cleaned, as appropriate. Service lines to the individual trailers, manholes, pumps, a dosing chamber and associated piping as identified on project plans have been incorporated into the sewer collection system design as well. In order to complete this work, dewatering is required.

Initially CHA Consulting, Inc. collected groundwater samples on March 17, 2016 from a test pit on the property proximal to the existing leach field and had the samples analyzed for the parameters in accordance with the NPDES DGP, Appendix VIII. This data was submitted in the April 27, 2016 NOI-Dewatering Permit submitted by CHA. However, elevated concentrations of lead, iron and low pH were detected in this initial assessment. Based on this initial data additional assessment was conducted to better characterize the groundwater that will be encountered during the proposed dewatering.

To this end a test pit was advanced proximal to the proposed excavation where the actual dewatering would occur near the "Dosing Chamber" and a sample was collected from the test pit and analyzed for lead. This sample detected lead at 18 ug/l. However much silt was noted in the sample so it was determined that a shallow monitoring well would allow for a more representative sample to be collected. CEC installed and developed a monitoring well proximate to the proposed area of construction on December 22, 2016. On December 29, 2016 and January 4, 2017, CEC collected representative groundwater samples and had the samples analyzed at a laboratory for lead and iron. Laboratory data reports for this sample are provided in Appendix B.

The pH of the groundwater collected from the monitoring well was also evaluated. On January 19, 2017 the before purge CEC detected at 6.84 s.u. and the after purging of three well volumes 6.77 s.u. were detected. CEC resampled for pH on January 23, 2017 and on this date the both pre and post purge recordings of pH were 6.20 s.u. Prior to all field pH sampling the Eutech Digital pH EC Pen was calibrated using a 4.01 s.u., 7.00 s.u., and 10.01 s.u. buffer solutions.

To better understand what the pH of the receiving waters was collected on February 13, 2017. The pH of the sample collected from Hockomock Swamp was 6.43 s.u. which falls well within the average pH concentration of the groundwater within the project area.

Consultation with Federal Services

CHA Consulting, Inc. reviewed online electronic data viewers and databases from the Massachusetts Geographical Information System (MassGIS), the Massachusetts Division of Fisheries and Wildlife (MassWildlife Natural Heritage and Endangered Species Program) and the U.S national Parks Service Natural Historic Places (NPS). Based on this review it was determined that no federally listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area. Please see the U.S Fish & Wildlife Service letter in Appendix C.

Coverage under NPDES

It is our opinion that the proposed discharge is eligible for coverage under the NPDES DGP. On behalf of Easton MHC, LLC, we are requesting coverage under the NPDES DGP for the discharge of groundwater during construction activities to the Easton Mobile Homes. Based on our February 13, 2017 findings that the pH of Hockomock Swamp, which are the receiving waters for the proposed groundwater discharge that has an average pH of 6.43 s.u. we request the pH range for this Site be expanded to the federal standard of 6.0 to 9.0 s.u. In addition our sampling of groundwater detected a pH of 6.2 s.u. to 6.84 s.u. this demonstrates that the discharge falls between 0.5 s.u. in accordance with 314 CMR 4.05(3) (a) 3.

The enclosed NOI form provides required information on the general site conditions, discharge, receiving waters, and consultation with federal services. For this project, Easton MHC, LLC is the operator that has operational control over the construction plans and specifications.

Please feel free to contact us at (774) 501-2176 if you have any questions or if you require additional information.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.



Brandon R. Patrick
Assistant Project Manager



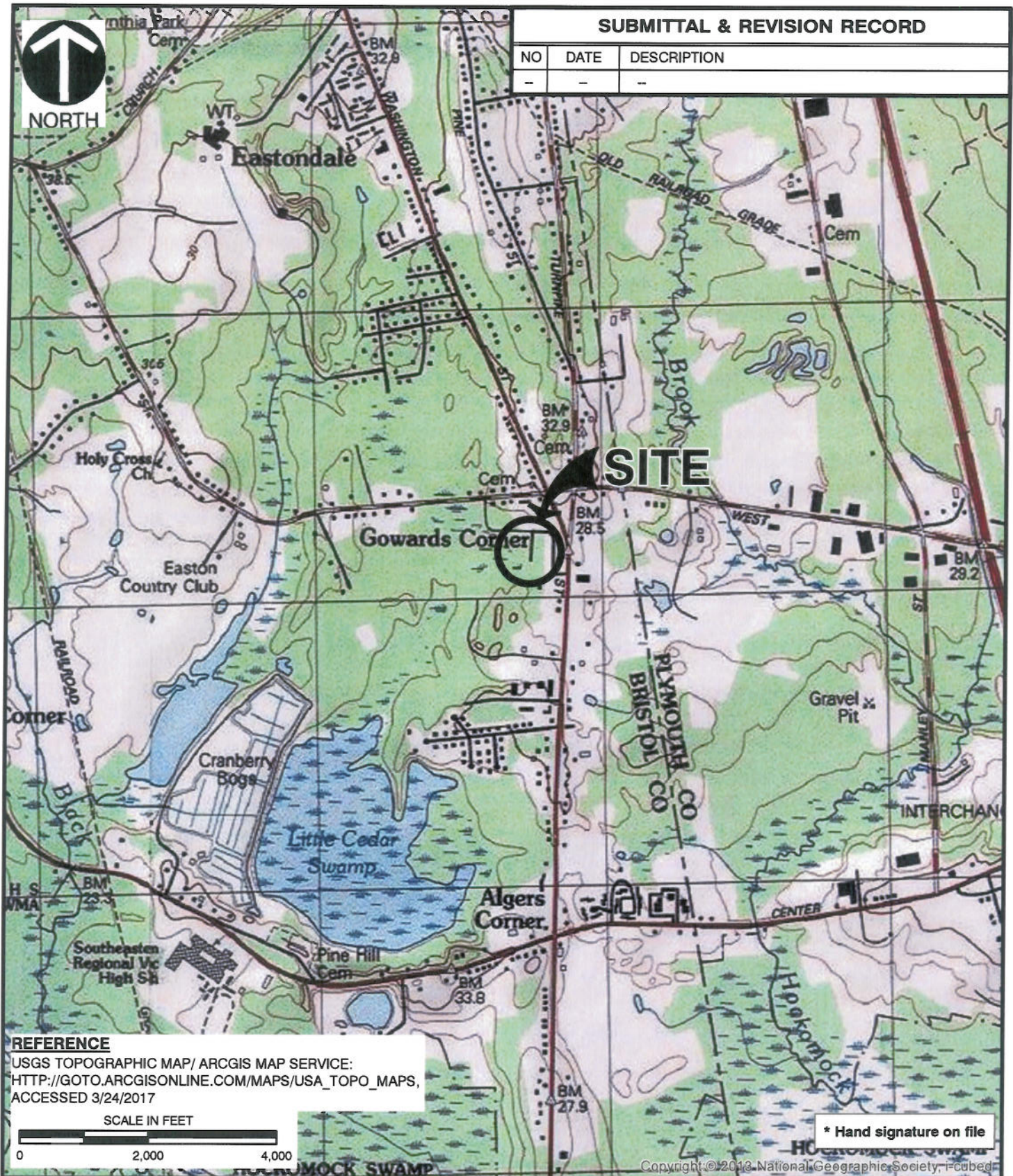
William R. Hoyerman, LSP
Senior Project Manager

Enclosures: Figures – Figure 1 Site Locus Map
 Tables – Table 1 Groundwater Sampling
 Appendix A – NOI Form
 Appendix B – Laboratory Data
 Appendix C – U.S. Fish & Wildlife Services Letter
 Appendix D – CHA Plan Set



SUBMITTAL & REVISION RECORD

NO	DATE	DESCRIPTION
-	-	-



* Hand signature on file



Civil & Environmental Consultants, Inc.

31 Bellows Road - Raynham, MA 02767

774-501-2176 • 866-312-2024

www.cecinc.com

**EASTON MOBILE HOMES
EASTON, MASSACHUSETTS**

SITE LOCUS MAP

DRAWN BY:	RJF	CHECKED BY:	WRH	APPROVED BY:	*WRH	FIGURE NO:	1
DATE:	MARCH 2017	SCALE:	1" = 2,000'	PROJECT NO:	165-173		

Table 1
Groundwater Sampling
Easton Mobile Park
CEC Project: 165-173

Leach Field Test Pit		Resample	Dosing Chamber Test Pit	Monitoring Well Samples		
Sample ID	Pit			Easton Mobile Park Pb	Easton Mobile Park Pb	Easton Mobile Park Pb
	001			12/29/2017	1/4/2017	
Sample Date	3/17/2016			1701010-01	1701071-01	
Lab ID Number	1603-06256					
Lead (µg/L)	1		18	< 1.0	< 1.0	
Iron (µg/L)	2740		NT	< 100	351	
pH (s.u.)	6.5		NT	Pre-Purge 6.84	Post-Purge 6.77	Pre-Purge 6.20 Post-Purge 6.20

Notes:
 NT = Not Tested

II. Suggested Notice of Intent (NOI) Format

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

a) Name of facility: Easton Mobile Homes - Sewer System Repair	Mailing Address for the Facility: 1170 Pittsford-Victor Road, Pittsford, NY 14534	
b) Location Address of the Facility (if different from mailing address): 305 Turnpike Street, Easton, MA 02334	Facility Location longitude: 40.022778 latitude: 71.0675	Type of Business: Residential - Mobil Home Community Facility SIC codes:
c) Name of facility owner: Easton MHC, LLC Owner's Tel #: (585) 419-9630 Address of owner (if different from facility address) 1170 Pittsford-Victor Road Pittsford, NY 14534 Owner is (check one): 1. Federal 2. State 3. Private ☒ 4. Other (Describe) Legal name of Operator, if not owner: Easton MHC, LLC Operator Contact Name: Kevin Morgan Operator Tel Number: (585) 419-9630 Operator's email: Kevin.Morgan@morgancommunities.com Operator Address (if different from owner)		
d) Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? ☒		
e) Check Yes or No for the following: 1. Has a prior NPDES permit been granted for the discharge? Yes ☐ No ☒ If Yes, Permit Number: _____ 2. Is the discharge a "new discharge" as defined by 40 CFR Section 122.2? Yes ☐ No ☒ 3. Is the facility covered by an individual NPDES permit? Yes ☐ No ☒ If Yes, Permit Number _____ 4. Is there a pending application on file with EPA for this discharge? Yes ☒ No ☐ If Yes, date of submittal: 04/27/2016		

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

a) Name of receiving water into which discharge will occur: Hockmuck Swamp
State Water Quality Classification: Freshwater: X Marine Water: _____

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

c) Number of outfalls 1

For each outfall:

d) Estimate the maximum daily and average monthly flow of the discharge (in gallons per day – GPD). Max Daily Flow 20,000 GPD
Average Monthly Flow 10,000 GPD

e.) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 7.0 Min pH 6.0

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

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

h.) Is the discharge continuous? Yes _____ No ☒ If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B) B
If (P), number of days or months per year of the discharge _____ and the specific months of discharge _____;
If (I), number of days/year there is a discharge _____
Is the discharge temporary? Yes ☒ No _____
If yes, approximate start date of dewatering April 1, 2017 approximate end date of dewatering April 1, 2018

i.) Latitude and longitude of each discharge within 100 feet (See http://www.epa.gov/tri/report/siting_tool): Outfall 1: long. 71.04°05 lat. 42.01°22; Outfall 2: long. _____ lat. _____; Outfall 3: long. _____ lat. _____.

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

MASSACHUSETTS FACILITIES: See Section 3.4 and Appendix 1 of the General Permit for more information on Areas of Critical Environmental Concern (ACEC): k.) Does the discharge occur in an ACEC? Yes ☒ No ☐ If yes, provide the name of the ACEC: <u>Hockomock Swamp</u>
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3. Contaminant Information

a) Are any pH neutralization and/or dechlorination chemicals used in the discharge? If so, include the chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC₅₀ in percent for aquatic organism(s)).

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

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

a) Which of the three eligibility criteria listed in Appendix IV, Criterion (A, B, or C) have you met? B

b) Please attach documentation with your NOI supporting your response. Please see Appendix IV for acceptable documentation

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

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

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

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

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

6. Supplemental Information: Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit

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

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the dewatering system; (2) the discharge consists solely of dewatering and authorized pH adjustment and/or dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product or finished product; (4) if the discharge of dewatering subsequently mixes with other permitted wastewater (i.e. stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for dewatering discharge; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility Name: Easton Mobile Homes

Operator signature:

Print Full Name and Title: Kevin Morgan, Owner

Date:

Federal regulations require this application to be signed as follows:

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

APPENDIX B

Laboratory Data

CERTIFICATE OF ANALYSIS

CHA Consulting, Inc.
Attn: Gabe Crocker
101 Accord Park Drive
Norwell, MA 02061

Date Received: 3/17/16
Date Reported: 3/23/16
Date Revised: 03/25/2016
P.O. #: 25248
Work Order #: 1603-06256 REV A

DESCRIPTION: PROJECT# 25248 EASTON MOBILE HOMES

Subject sample(s) has/have been analyzed by our Warwick, R.I. laboratory with the attached results.

Reference: All parameters were analyzed by U.S. EPA and Massachusetts Contingency Plan (MCP) approved methodologies where applicable. The specific methodologies are listed in the methods column of the Certificate of Analysis.

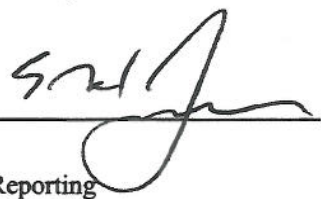
Data qualifiers (if present) are explained in full at the end of a given sample's analytical results.

Certification #: RI LAI0033, MA M-RI015, CT PH-0508, ME RI00015
NH 2070, NY 11726

This Certificate represents all data associated with the referenced work order and is paginated for completeness. The complete Certificate includes one attachment; the original Chain of Custody.

If you have any questions regarding this work, or if we may be of further assistance, please contact our customer service department.

Approved by:



Data Reporting

enc: Chain of Custody

Customer Name : CHA Consulting, Inc.

Page 2 of 6

Work Order #: 1603-06256

MassDEP Analytical Protocol Certification Form

Laboratory Name: R.I. Analytical Laboratories

Work Order #: 1603-06256

Project / Location:

PROJECT# 25248 EASTON MOBILE HOMES

RTN :

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):

1603-06256-001 through 1603-06256-001

Matrices: ☒ Groundwater/Surface Water ☐ Soil / Sediment ☐ Drinking Water ☐ Air ☐ Other

CAM Protocol (check all that apply below):

8260 VOC CAM II A ☐	7470/7471 Hg CAM III B ☒	MassDEP VPH CAM IV A ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	MassDEP APH CAM IX A ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	MassDEP EPH CAM IV B ☐	8151 Herbicides CAM V C ☐	8330 Explosives CAM VIII A ☐	TO-15 VOC CAM IX B ☐
6010 Metals CAM III A ☒	6020 Metals CAM III D ☒	8082 PCB CAM V A ☐	9014 Total Cyanide /PAC CAM VI A ☐	6860 Perchlorate CAM VII B ☐	

Affirmative responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☒ Yes ☐ No
B	Were the analytical methods(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	☒ Yes ☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☒ Yes ☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	☒ Yes ☐ No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No ☐ Yes ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	☒ Yes ☐ No

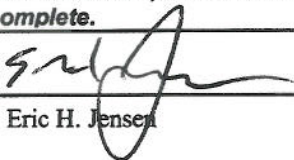
Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☒ Yes ☐ No ¹
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	☒ Yes ☐ No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☐ Yes ☒ No ¹

¹ All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.

Signature



Position:

Laboratory Director

Printed Name:

Eric H. Jensen

Date:

3-25-16

Case Narrative

Date: 3/23/2016

CHA Consulting, Inc.
Attn: Gabe Crocker
101 Accord Park Drive
Norwell, MA 02061

Project: PROJECT# 25248 EASTON MOBILE HOMES

Work Order #: 1603-06256

Sample -001(WWTP-1) Arsenic result revised to <0.01.

The following exceptions were noted for this Work Order:

The method requested for Chloride is not listed in the table of contents for compendium of MCP analytical methods. Therefore, there is no guideline for presumptive certainty.

Dissolved Metals by 6010, 6020

Question I - Per the client's request, only a subset of the MCP analyte list for SW-846 Method 6010, 6020 Dissolved Metals is reported.

There were no additional exceptions or analytical issues to discuss concerning the testing requirements for the project.

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

CHA Consulting, Inc.

Date Received: 3/17/16

Work Order #: 1603-06256

PROJECT# 25248 EASTON MOBILE HOMES

Sample # 001							
SAMPLE DESCRIPTION:		WWTP-1		SAMPLE DATE/TIME:		3/17/2016 @ 13:00	
SAMPLE TYPE:		GRAB					
PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED		ANALYST
pH	6.5		SU	SM4500H+B	3/18/16	16:15	DET
ORP	83		mv	ASTM D1498-08	3/17/16	22:05	DET
Chloride	130	12	mg/l	EPA 300.0	3/17/16	23:41	ALR
Hexavalent Chromium (Dissolved)	<0.02	0.02	mg/l	SM3500Cr-B 21ed	3/17/16	21:45	PTT
Dissolved Metals Analyzed by ICPMS							
Antimony	<0.002	0.002	mg/l	SW-846 6020A	3/22/16	10:35	PJC
Arsenic	<0.01	0.01	mg/l	SW-846 6020A	3/22/16	10:35	PJC
Lead	0.001	0.001	mg/l	SW-846 6020A	3/22/16	10:35	PJC
Dissolved Metals							
Cadmium	<0.005	0.005	mg/l	SW-846 6010C	3/18/16	9:19	JRW
Chromium	<0.050	0.050	mg/l	SW-846 6010C	3/18/16	9:19	JRW
Copper	<0.010	0.010	mg/l	SW-846 6010C	3/18/16	9:19	JRW
Iron	2.74	0.100	mg/l	SW-846 6010C	3/18/16	9:19	JRW
Mercury	<0.0005	0.0005	mg/l	SW-846 7471B	3/22/16	11:01	JRW
Nickel	<0.050	0.050	mg/l	SW-846 6010C	3/18/16	9:19	JRW
Silver	<0.020	0.020	mg/l	SW-846 6010C	3/18/16	9:19	JRW
Zinc	<0.10	0.10	mg/l	SW-846 6010C	3/18/16	9:19	JRW
ICPMS Digestion (Dissolved)				SW-846 3020A	3/18/16	8:07	JRW

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

QA/QC Report

Client: CHA Consulting, Inc.

WO #: 1603-06256

Date: 3/23/2016

-Method Blanks Results-

Parameter	Units	Results	Date Analyzed
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Dissolved Metals

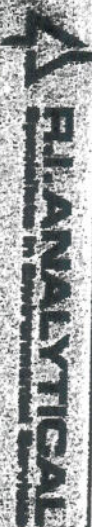
Cadmium	mg/l	<0.005	3/18/2016
Chromium	mg/l	<0.050	3/18/2016
Copper	mg/l	<0.010	3/18/2016
Iron	mg/l	<0.100	3/18/2016
Mercury	mg/l	<0.0005	3/22/2016
Nickel	mg/l	<0.050	3/18/2016
Silver	mg/l	<0.020	3/18/2016
Zinc	mg/l	<0.10	3/18/2016

Dissolved Metals

Antimony (mg/l)	mg/l	<0.002	3/22/2016
Arsenic (mg/l)	mg/l	<0.01	3/22/2016
Lead (mg/l)	mg/l	<0.001	3/22/2016

-LCS/LCS Duplicate Data Results-

Parameter	CRM Acceptance Limits	Spike Conc	LCS Conc	LCS % Rec	LCS Dup Conc	LCS DUP % Rec	% RPD	Date Analyzed
ORP		600	578	96				3/17/2016
Dissolved Metals								
Cadmium		1.00	0.989	99	1.00	100	1	3/18/2016
Chromium		1.00	0.973	97	0.995	100	2	3/18/2016
Copper		1.00	0.980	98	0.998	100	2	3/18/2016
Iron		10.0	9.38	94	9.66	97	3	3/18/2016
Nickel		1.00	0.968	97	0.986	99	2	3/18/2016
Silver		1.00	0.986	99	1.04	104	5	3/18/2016
Zinc		1.00	0.96	96	0.98	98	2	3/18/2016
Dissolved Metals								
Mercury		0.0020	0.0018	90	0.0020	100	11	3/22/2016
Dissolved Metals								
Antimony (mg/l)		0.050	0.058	116	0.059	118	2	3/22/2016
Arsenic (mg/l)		0.050	0.052	104	0.051	102	2	3/22/2016
Lead (mg/l)		0.050	0.055	110	0.055	110	0	3/22/2016



CHAIN OF CUSTODY RECORD

41 Illinois Avenue

Warwick, RI 02888-3007

800-937-2580 • Fax: 401-738-1970

131 Coolidge St., Suite 105

Hudson, MA 01749-1331

800-937-2580 • Fax: 978-568-0078

Date Collected

Time Collected

Field Sample Identification

3/17/16 1:00

WVTP-1

Grab or Composite
of Containers & Type^c
Preservation Code^p
Matrix Code^m
X Dissolved Sb, As, Cd
X Cr, Cu, Fe, Hg, Ni
X Ag, Zn, Pb, Cr & t
X pH
X chloride

Client Information

Company Name: CHA Consulting Inc.

Address: 101 Accord Park Drive

City/State/Zip: Norwell, MA 02061

Telephone: 781-982-5400 Fax:

Contact Person:

Project Information

Project Name: Boston Mobile Homes

P.O. Number: 25248

Report To: Gabe Crocker

Sampled By: J Hanley

Quote No: Email report to these addresses: gcrocker@eha.com

Sampling and Analysis

Received By Signature

Signature

Date

Time

Signature

Date

Time

Signature

Date

Time

Circle if applicable: GW-1, GW-2, GW-3, S-1, S-2, S-3

MCP Data Enhancement OC Package? Yes No

Temp. Upon Receipt 3.2 °C

Lab Use Only

Sample Pick-Up Only

RTIL sampled; attach field hours

Shipped on bus

Workorder No: 1603-06256

Containers: P-Poly, G-Glass, AG-Amber Glass, V-Vial, St-Bottle Preservatives: A-Ascorbic Acid, NH₄-NH₄Cl, H-HCl, M-MeOH, N-NH₄NO₃, N₂-NaOH, S-H₂SO₄, SB-NH₄HSO₄, ST-NaOH, T-Na₂SO₄, Z-ZnCl₂
Media Codes: GW-Groundwater, SW-Surface Water, WW-Wastewater, DW-Drinking Water, S-Sol, SL-Sludge, A-Al, B-Bu/Boil, WP-WP, O₂

LABORATORY REPORT

CHA Consulting, Inc.
Attn: Mr. William Hoyerman
101 Accord Park Drive
Norwell, MA 02061

Date Received: 11/3/16
Date Reported: 11/8/16
P.O. #: 25362

Work Order #: 1611-26041

DESCRIPTION: PROJECT #25362 EASTON MOBILE HOMES

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory. When applicable, subcontracted results are noted and reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA and Massachusetts Contingency Plan (MCP) approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Data Reporting

Laboratory Certification Numbers (as applicable to sample's origin state):
RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726

Customer Name : CHA Consulting, Inc.

Work Order #: 1611-26041

MassDEP Analytical Protocol Certification Form

Laboratory Name: R.I. Analytical Laboratories Work Order #: 1611-26041
 Project / Location: PROJECT #25362 EASTON MOBILE HOMES

RTN :

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):

1611-26041-001 through 1611-26041-001

Matrices: ☒ Groundwater/Surface Water ☐ Soil / Sediment ☐ Drinking Water ☐ Air ☐ Other

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM III B	7010 Metals CAM III C	Mass DEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D ☒	8082 PCB CAM V A	9014 Total Cn	6860 Perchlorate CAM VIII B	

Affirmative responses to Questions A through F are required for "Presumptive Certainty" status

A Were all samples received in a condition consistent with those described on the Chain -of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times? Yes

B Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed? Yes

C Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances? Yes

D Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for Acquisition and Reporting of Analytical Data"? Yes

E a. VPH, EPH and APH methods only: Was each method conducted without significant modification(s)? N/A
 (Refer to the individual method(s) for a list of significant modifications).

b. APH and TO-15 Methods only: Was the complete analyte list reported for each method? N/A

F Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)? Yes

Responses to Questions G,H,I below are required for "Presumptive Certainty" status

G Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)? Yes
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40.1056 (2)(k) and WSC-07-350.

H Were all QC performance standards specified in the CAM protocol(s) achieved? Yes

I Were results reported for the complete analyte list specified in the selected CAM protocol(s)? No ¹

¹ All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.

Signature



Position:

Technical Director

Printed Name:

Yihai Ding

Date:

11/8/16

Case Narrative

Date: 11/8/2016

CHA Consulting, Inc.
Attn: Mr. William Hoyerman
101 Accord Park Drive
Norwell, MA 02061

Project: PROJECT #25362 EASTON MOBILE HOMES

Work Order #: 1611-26041

-Method Blanks Results-

Parameter	Units	Results	Date Analyzed
-----------	-------	---------	---------------

Metals			
Lead	mg/l	<0.001	11/8/2016

R.I. Analytical Laboratories, Inc.**Laboratory Report**

CHA Consulting, Inc.

Work Order #: 1611-26041

Project Name: PROJECT #25362 EASTON MOBILE HOMES

Sample Number: 001
Sample Description: 33 THIRD ST.
Sample Type : GRAB
Sample Date / Time : 11/02/2016 @ 09:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Dissolved Metals						
Lead	0.018	0.001	mg/l	SW-846 6020A	11/8/16 14:25	JRW
ICPMS Digestion (Total)				SW-846 3020A	11/4/16 16:05	MYE

-Method Blanks Results-

Parameter	Units	Results	Date Analyzed
-----------	-------	---------	---------------

Metals

Lead

mg/l

<0.001

11/8/2016

-LCS/LCS Duplicate Data Results-

Parameter	CRM Acceptance Limits	Spike Conc	LCS Conc	LCS % Rec	LCS Dup Conc	LCS DUP % Rec	% RPD	Date Analyzed
-----------	--------------------------	---------------	-------------	--------------	-----------------	------------------	-------	---------------

Metals

Lead		0.050	0.052	104	0.053	106	2	11/8/2016
------	--	-------	-------	-----	-------	-----	---	-----------



ESS Laboratory

Division of Thielsch Engineering, Inc.

BAL Laboratory

*The Microbiology Division
of Thielsch Engineering, Inc.*



CERTIFICATE OF ANALYSIS

Ryan Charney
Civil & Environmental Consultants, Inc.
31 Bellows Road
Raynham, MA 02767

RE: Easton Mobile Park (165-173)
ESS Laboratory Work Order Number: 1701010

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED

By ESS Laboratory at 9:54 am, Jan 10, 2017

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with TNI and relative state standards, and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.
Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701010

SAMPLE RECEIPT

The following samples were received on January 03, 2017 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Question I: All samples for Metals were analyzed for a subset of the required MCP list per the client's request.

<u>Lab Number</u>	<u>Sample Name</u>	<u>Matrix</u>	<u>Analysis</u>
1701010-01	Easton Mobile Park Pb	Ground Water	6020A
1701010-02	Easton Mobile Park Fe	Ground Water	6010C



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.
Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701010

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.
Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701010

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015C - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.
Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701010

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1701010-01 through 1701010-02**

Matrices: ☒ Ground Water/Surface Water ☐ Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other: _____

CAM Protocol (check all that apply below):

- | | | | | | |
|---|--|--|---|---|--|
| ☐ 8260 VOC
CAM II A | ☐ 7470/7471 Hg
CAM III B | ☐ MassDEP VPH
CAM IV A | ☐ 8081 Pesticides
CAM V B | ☐ 7196 Hex Cr
CAM VI B | ☐ MassDEP APH
CAM IX A |
| ☐ 8270 SVOC
CAM II B | ☐ 7010 Metals
CAM III C | ☐ MassDEP EPH
CAM IV B | ☐ 8151 Herbicides
CAM V C | ☐ 8330 Explosives
CAM VIII A | ☐ TO-15 VOC
CAM IX B |
| ☐ 6010 Metals
CAM III A | ☒ 6020 Metals
CAM III D | ☐ 8082 PCB
CAM V A | ☐ 6860 Perchlorate
CAM VIII B | ☐ 9014 Total Cyanide/PAC
CAM VI A | |

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

- | | | |
|---|---|---|
| A | Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times? | Yes ☒ No ☐ |
| B | Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed? | Yes ☒ No ☐ |
| C | Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances? | Yes ☒ No ☐ |
| D | Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? | Yes ☒ No ☐ |
| E | a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). | Yes ☐ No ☐ |
| | b. APH and TO-15 Methods only: Was the complete analyte list reported for each method? | Yes ☐ No ☐ |
| F | Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)? | Yes ☒ No ☐ |

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

- | | | |
|---|---|---|
| G | Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)? | Yes ☒ No ☐ * |
| Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40.1056 (2)(k) and WSC-07-350. | | |
| H | Were all QC performance standards specified in the CAM protocol(s) achieved? | Yes ☒ No ☐ * |
| I | Were results reported for the complete analyte list specified in the selected CAM protocol(s)? | Yes ☐ No ☒ * |

*All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Laurel Stoddard

Printed Name: Laurel Stoddard

Date: January 10, 2017

Position: Laboratory Director



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.
Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701010

Dissolved Metals

Client Sample ID: Easton Mobile Park Pb
Date Sampled: 12/29/16 10:30
Percent Solids: N/A

ESS Laboratory Sample ID: 1701010-01
Sample Matrix: Ground Water

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Lead	ND	ug/L	1.0	6020A	1	NAR	01/06/17 15:14	10	10

Client Sample ID: Easton Mobile Park Fe
Date Sampled: 12/29/16 10:45
Percent Solids: N/A

ESS Laboratory Sample ID: 1701010-02
Sample Matrix: Ground Water

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Iron	ND	ug/L	100	6010C	1	KJK	01/04/17 19:44	10	10



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.
Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701010

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

Dissolved Metals

Batch CA70411 - 200.7/60108NoDigest

Blank

Iron	ND	100	ug/L							
Lead	ND	1.0	ug/L							

LCS

Iron	2.5		mg/L	2.500		102	80-120			
------	-----	--	------	-------	--	-----	--------	--	--	--

LCS

Lead	19.9		ug/L	20.00		100	80-120			
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ESS Laboratory

Division of Thielsch Engineering, Inc.

BAL Laboratory

*The Microbiology Division
of Thielsch Engineering, Inc.*



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.

Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701010

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.
Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701010

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179

<http://www.health.ri.gov/find/labs/analytical/ESS.pdf>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750

http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002

<http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/partners/labCert.shtml>

Massachusetts Potable and Non Potable Water: M-RI002

<http://public.dep.state.ma.us/Labcert/Labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424

<http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313

<http://www.wadsworth.org/labcert/elap/comm.html>

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006

http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752

<http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx>

ESS Laboratory Sample and Cooler Receipt Checklist

Client: CEC - Civil & Env'tl Consultants - KPB/TB/MM

ESS Project ID: 1701010

Date Received: 1/3/2017

Project Due Date: 1/10/2017

Days for Project: 5 Day

Shipped/Delivered Via: ESS Courier

1. Air bill manifest present?

☐ No

Air No.: NA

2. Were custody seals present?

☐ No

3. Is radiation count <100 CPM?

☐ Yes

4. Is a Cooler Present?

☐ Yes

Temp: 2.0 Iced with: Ice

5. Was COC signed and dated by client?

☐ Yes

6. Does COC match bottles?

☐ Yes

7. Is COC complete and correct?

☐ Yes

8. Were samples received intact?

☐ Yes

9. Were labs informed about short holds & rushes?

Yes / No / NA

10. Were any analyses received outside of hold time?

Yes / No

11. Any Subcontracting needed?

Yes / No

ESS Sample IDs:

Analysis:

TAT:

12. Were VOAs received?

Yes / No

a. Air bubbles in aqueous VOAs?

Yes / No

b. Does methanol cover soil completely?

Yes / No / NA

13. Are the samples properly preserved?

Yes / No

a. If metals preserved upon receipt:

Date:

Time:

By:

b. Low Level VOA vials frozen:

Date:

Time:

By:

Sample Receiving Notes:

14. Was there a need to contact Project Manager?

Yes / No

a. Was there a need to contact the client?

Yes / No

Who was contacted?

Date:

Time:

By:

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
01	96381	Yes	NA	Yes	250 mL Poly - HNO3	HNO3	
02	96380	Yes	NA	Yes	250 mL Poly - HNO3	HNO3	

2nd Review

Are barcode labels on correct containers?

Yes / No

Completed By:

Date & Time:

Reviewed By:

Date & Time:

Delivered By:

Date & Time:



ESS Laboratory

Division of Thielsch Engineering, Inc.

BAL Laboratory

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CERTIFICATE OF ANALYSIS

Ryan Charney
Civil & Environmental Consultants, Inc.
31 Bellows Road
Raynham, MA 02767

RE: Easton Mobile Park (165-173)
ESS Laboratory Work Order Number: 1701071

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED

By ESS Laboratory at 12:00 pm, Jan 12, 2017

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with TNI and relative state tandards, and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.
Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701071

SAMPLE RECEIPT

The following samples were received on January 05, 2017 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Question I: All samples for Metals were analyzed for a subset of the required MCP list per the client's request.

<u>Lab Number</u>	<u>Sample Name</u>	<u>Matrix</u>	<u>Analysis</u>
1701071-01	Easton Mobile Park Pb	Ground Water	6020A
1701071-02	Easton Mobile Park Fe	Ground Water	6010C



ESS Laboratory

Division of Thielsch Engineering, Inc.

BAL Laboratory

*The Microbiology Division
of Thielsch Engineering, Inc.*



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.
Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701071

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.
Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701071

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015C - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.



ESS Laboratory

Division of Thielsch Engineering, Inc.

BAL Laboratory

The Microbiology Division
of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.

Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701071

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1701071-01 through 1701071-02**

Matrices: ☒ Ground Water/Surface Water () Soil/Sediment () Drinking Water () Air () Other: _____

CAM Protocol (check all that apply below):

- | | | | | | |
|------------------------------|--|-----------------------------|------------------------------------|--|-----------------------------|
| () 8260 VOC
CAM II A | () 7470/7471 Hg
CAM III B | () MassDEP VPH
CAM IV A | () 8081 Pesticides
CAM V B | () 7196 Hex Cr
CAM VI B | () MassDEP APH
CAM IX A |
| () 8270 SVOC
CAM II B | () 7010 Metals
CAM III C | () MassDEP EPH
CAM IV B | () 8151 Herbicides
CAM V C | () 8330 Explosives
CAM VIII A | () TO-15 VOC
CAM IX B |
| () 6010 Metals
CAM III A | ☒ 6020 Metals
CAM III D | () 8082 PCB
CAM V A | () 6860 Perchlorate
CAM VIII B | () 9014 Total Cyanide/PAC
CAM VI A | |

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

- | | | |
|---|---|--|
| A | Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times? | Yes ☒ No () |
| B | Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed? | Yes ☒ No () |
| C | Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances? | Yes ☒ No () |
| D | Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? | Yes ☒ No () |
| E | a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). | Yes () No () |
| | b. APH and TO-15 Methods only: Was the complete analyte list reported for each method? | Yes () No () |
| F | Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)? | Yes ☒ No () |

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

- | | | |
|---|---|--|
| G | Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350. | Yes ☒ No ()* |
| H | Were all QC performance standards specified in the CAM protocol(s) achieved? | Yes ☒ No ()* |
| I | Were results reported for the complete analyte list specified in the selected CAM protocol(s)? | Yes () No ☒ * |

*All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Laurel Stoddard
Printed Name: Laurel Stoddard

Date: January 12, 2017
Position: Laboratory Director



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.
Client Project ID: Easton Mobile Park
Client Sample ID: Easton Mobile Park Pb
Date Sampled: 01/04/17 08:50
Percent Solids: N/A

ESS Laboratory Work Order: 1701071
ESS Laboratory Sample ID: 1701071-01
Sample Matrix: Ground Water
Units: ug/L

Extraction Method: 200.7/6010BNoDigest

Dissolved Metals

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Lead	ND (1.0)		6020A		1	NAR	01/06/17 15:38	10	10	CA70506



ESS Laboratory

Division of Thielsch Engineering, Inc.

BAL Laboratory

*The Microbiology Division
of Thielsch Engineering, Inc.*



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.
Client Project ID: Easton Mobile Park
Client Sample ID: Easton Mobile Park Fe
Date Sampled: 01/04/17 09:00
Percent Solids: N/A

ESS Laboratory Work Order: 1701071
ESS Laboratory Sample ID: 1701071-02
Sample Matrix: Ground Water
Units: ug/L

Extraction Method: 200.7/6010BNoDigest

Dissolved Metals

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Iron	351 (100)		6010C		1	KJK	01/06/17 16:05	10	10	CA70506



CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.
Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701071

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

Dissolved Metals

Batch CA70506 - 200.7/6010BNoDigest

Blank

Iron	ND	100	ug/L
Lead	ND	1.0	ug/L

LCS

Iron	2.4	mg/L	2.500	97	80-120
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LCS

Lead	19.9	ug/L	20.00	100	80-120
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CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.

Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701071

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report



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CERTIFICATE OF ANALYSIS

Client Name: Civil & Environmental Consultants, Inc.

Client Project ID: Easton Mobile Park

ESS Laboratory Work Order: 1701071

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179

<http://www.health.ri.gov/find/labs/analytical/ESS.pdf>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750

http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutOfStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002

<http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/partners/labCert.shtml>

Massachusetts Potable and Non Potable Water: M-RI002

<http://public.dep.state.ma.us/Labcert/Labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424

<http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313

<http://www.wadsworth.org/labcert/elap/comm.html>

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006

http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752

<http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx>

ESS Laboratory Sample and Cooler Receipt Checklist

Client: CEC - Civil & Env'tal Consultants - KPB/TB/MM

ESS Project ID: 1701071

Date Received: 1/5/2017

Project Due Date: 1/12/2017

Days for Project: 5 Day

Shipped/Delivered Via: ESS Courier

1. Air bill manifest present? ☐ No
Air No.: NA

6. Does COC match bottles? ☐ Yes

2. Were custody seals present? ☐ No

7. Is COC complete and correct? ☐ Yes

3. Is radiation count <100 CPM? ☐ Yes

8. Were samples received intact? ☐ Yes

4. Is a Cooler Present? ☐ Yes
Temp: 1.8 Iced with: Ice

9. Were labs informed about short holds & rushes? Yes / No / NA

5. Was COC signed and dated by client? ☐ Yes

10. Were any analyses received outside of hold time? Yes / No

11. Any Subcontracting needed? Yes / No
ESS Sample IDs: _____
Analysis: _____
TAT: _____

12. Were VOAs received? Yes / No
a. Air bubbles in aqueous VOAs? Yes / No
b. Does methanol cover soil completely? Yes / No / NA

13. Are the samples properly preserved? Yes / No

a. If metals preserved upon receipt:

Date: _____

Time: _____

By: _____

b. Low Level VOA vials frozen:

Date: _____

Time: _____

By: _____

Sample Receiving Notes:

14. Was there a need to contact Project Manager? Yes / No

a. Was there a need to contact the client? Yes / No

Who was contacted? _____

Date: _____

Time: _____

By: _____

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
01	96850	Yes	NA	Yes	250 mL Poly - HNO3	HNO3	
02	96849	Yes	NA	Yes	250 mL Poly - HNO3	HNO3	

2nd Review

Are barcode labels on correct containers? Yes / No

Completed

By: [Signature]

Date & Time: 1/5/17 1710

Reviewed

By: [Signature]

Date & Time: 1/5/17 1712

Delivered

By: [Signature]

Date & Time: 1/5/17 1712

