STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:	:	
	:	
APPLICATION OF NTE CONNECTICUT, LLC FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF AN ELECTRIC POWER GENERATING FACILITY OFF LAKE ROAD, KILLINGLY, CONNECTICUT	:	DOCKET NO. 470
	:	DECEMBER 1, 2016

APPLICANT'S RESPONSE TO MEMORANDUM REGARDING REQUESTS, MOTIONS AND THE CONTINUATION OF THE EVIDENTIARY HEARING

In its November 4, 2016 Memorandum Regarding Requests, Motions and the Continuation of the Evidentiary Hearing, the Siting Council (Council) asked the applicant, NTE Connecticut LLC (NTE), to submit (1) additional information regarding the Vernal Pool Analysis; (2) a correction to the Amphibian and Reptile Table A-2, Tab F of Volume II of the Docket No. 470 Application; and (3) information relative to the feasibility of using gray water at the proposed Killingly Energy Center (KEC). The information requested in items (1) and (2) was filed with the Council on November 28, 2016. Information relative to the feasibility of using gray water at KEC is provided below.

3. Information relative to the feasibility of using gray water at the proposed Killingly Energy Center.

The Killingly Energy Center (KEC) requires a reliable source of water in order to provide makeup water for certain necessary cycle losses (i.e. HRSG blowdown, CT inlet air cooling, and CT water injection for NOx reduction during ULSD operation). NTE Connecticut, LLC (NTE) has explored various water supply options. The two deserving the most detailed analysis have

been and are: (i) water from the Connecticut Water Company (CWC); and (ii) treated effluent (gray water) from the Killingly Water Pollution Control Authority (KWPCA).

It is important to highlight that the first of these options is embedded in NTE's application to the Connecticut Siting Council. This approach, subject to certain infrastructure improvements that will have derivative benefits for both the Town and the CWC, provides a known and contractually viable source of water that is certain to meet quality specifications critical to KEC's reliable operation. By contrast, the treated effluent option is speculative. While NTE appreciates the reasons for exploring this option, it notes that the variability of the source (discussed below) is not yet fully understood. Beyond this, even if the treated effluent option appears to be viable, it will require significant infrastructure improvements as well as onsite technical and operational modifications (also discussed below). Finally, and perhaps most notably, the treated effluent option is speculative because it contemplates a supply of water from an entity that is neither obligated nor under contract or letter of agreement to provide such water.

NTE selected water from the CWC as the preferred option for a number of reasons including the reliability of the water quality, confidence in the operational systems associated with the CWC water, proximity of interconnection, confirmation by CWC of adequate capacity from existing well systems, engineering simplicity of treatment associated with makeup water, and benefits to the community associated with infrastructure improvements involved in the CWC water supply option. While use of treated effluent from the KWPCA facility remains a potential option, it has a number of drawbacks including lower reliability due to treated effluent water quality variability and more complex KEC facility treatment systems, the implications associated with the addition of a pump station and approximate 6.5-mile gray water pipeline, increased makeup water volume requirements, reduced flow to the Quinebaug River, additional loading on

the KWPCA sewer system and treatment facility, additional energy consumption, higher capital costs and higher operating and maintenance costs. In addition, KEC would still require a connection to the CWC water source for its potable water demands regardless of which process water makeup water source option is selected.

The CWC water supply approach has been described in detail in the Connecticut Siting Council application and is the preferred option. Despite this and while confident in the advantages of the CWC water supply option, NTE has, nonetheless, continued to evaluate the treated effluent option. The following is meant to describe and further evaluate the KWPCA treated effluent option.

KWPCA Treated Effluent Sampling Program

NTE has contracted with Microbac Laboratories (Dayville, CT) to implement a long-term sampling program of the KWPCA treated effluent. To adequately understand the composition and variability of this water, at least 12 months of analyses is required. This testing is needed to evaluate the impact of seasonal changes on the treated effluent. To date, Microbac has taken samples on October 4, October 27, and November 3 of 2016 (Attachment A). More long-term sampling results are required to determine the feasibility of using this resource and to evaluate the on-site treatment methodology. For the purposes of this preliminary evaluation only, data from these first three sampling events will be assumed to be representative of the long-term water-quality of the KWPCA treated effluent. Without question, certain aspects of this evaluation may need to be revised as a result of changes in water quality samples experienced throughout the remaining duration of the sampling program.

Pump Station and Pipeline

To transfer the treated effluent from the KWPCA facility to the KEC facility for additional treatment and use, a pump station and a pipeline would need to be installed.

The pump station would be installed at the KWPCA facility and would consist of two redundant, approximately 450 - 500 gpm (100 - 150 hp) pumps. An 8-inch diameter force main pipeline would need to be installed between the KWPCA facility and KEC, a distance of roughly 6.5 miles. NTE has worked with Killingly Engineering Associates (KEA) to identify a conceptual route for this pipeline (Attachment B). The pipeline would begin at the KWPCA facility and would run north on Route 12 (Wauregan Road) for about ¼ mile to Route 6 (Providence Pike). It would then continue north on Route 6 for about ½ mile to Maple Street. The pipeline would then continue north on Maple Street for about 4½ miles to Lake Road. It would then continue west on Lake Road for about 1¼ miles through the Killingly Industrial Park to the KEC entrance. NTE would still need to undertake additional surveys of the pipeline route in order to better understand the impacts associated with the installation of this pipeline. Because of the length of this pipeline along public roadways, some traffic disruptions are expected; however, NTE would coordinate with the Town of Killingly in order to minimize these impacts.

Makeup Water Treatment System

Using treated effluent from the KWPCA facility will require additional makeup water treatment system equipment, personnel, and operational improvements at the KEC facility. Water would be treated in the on-site water treatment facilities, located in the water treatment building that is positioned along the access driveway, near the location of the water storage tanks. The current footprint of the KEC facility would be able to accommodate the additional equipment.

In order to facilitate the use of gray water for the KEC facility, a filtered water system would need to be added. Assuming that water quality is consistent with that documented in the first three sampling events, this system would include two trains each of cartridge filters, backwashable strainers, membrane-type ultrafiltration equipment, and backwash supply pumps, as well as chemical feed systems (sodium hypochlorite, sodium bisulfite, ferric chloride, sulfuric acid, anti-scalant, cleaning solutions), a neutralization system, and miscellaneous tanks/pumps. Additionally, the demineralized water system would require the addition of a 2nd stage of reverse osmosis equipment, including two trains of membranes, vessels, and pumps. A polishing demineralizer downstream of the reverse osmosis equipment would continue to be accomplished by portable mixed bed ion exchange vessels. It is important to note that potable water for the KEC facility would still be supplied by the CWC water supply regardless of whether the CWC water or the KWPCA treated effluent is used for the KEC process water.

Makeup Water and Wastewater Volumes

NTE has prepared conceptual water balances for KEC while using the treated effluent from the KWPCA facility (Attachment C). Normal operation of the KEC facility when firing natural gas and using gray water makeup from the KWPCA facility will, depending on the ambient temperature, require approximately 71,000 to 134,000 gallons per day (gpd) of makeup water and 60,000 to 106,000 gpd of wastewater discharge back to the KWPCA facility. Compared to the approach of using water from the CWC water supply option, this represents an increased volume of wastewater discharge (and identical increased volume of makeup water) of 31,000 to 64,000 gpd.

Operation of the KEC facility when firing ULSD and using gray water from the KWPCA facility will, depending on the ambient temperature, require on the order of 419,000 to 460,000

gpd of makeup water and 176,000 to 204,000 gpd of wastewater discharge back to the KWPCA facility. Compared to the approach of using water from the CWC water supply option, this represents an increased volume of wastewater discharge (and identical increased volume of makeup water) of 91,000 to 115,000 gpd.

The increased makeup water and wastewater volumes when using treating effluent as compared to CWC water are the result of cycle losses primarily attributed to (i) the additional waste streams associated with the filtered water treatment system processes required to treat the gray water prior to use by the KEC facility and (ii) lower cycles of concentration (less recycling) in the combustion turbine inlet air evaporative cooler because of the increased impurities in the filtered water.

KEC wastewater would flow to the KWPCA sewer system via the existing sewer main located along Lake Road. Although using treated effluent from the KWPCA facility will result in considerably higher wastewater discharge volumes back to the KWPCA facility, it is anticipated that sufficient capacity would be available without adverse impact to the system or the community, as has been confirmed by KWPCA for the proposed CWC water use scenario.

Quinebaug River Flow

For the KWPCA treated effluent option, a certain volume of the wastewater would be accessed prior to it being discharged to the Quinebaug River. This water would be pumped to the KEC facility, further treated as required, and used in the various processes described herein. Following this, a reduced amount of the resulting wastewater would be returned to the KWPCA facility via the sewer system. The amount not returned to the KWPCA facility will be evaporated in the HRSG blowdown, combustion turbine inlet air cooling and combustion turbine NOx water injection required for air emissions control during ULSD operation. Normal

operation of the KEC facility when firing natural gas will, depending on the ambient temperature, result in a net reduction of approximately 11,000 to 28,000 gpd in the KWPCA discharge to the Quinebaug River. Operation of the KEC facility in those limited circumstances when it is firing ULSD will, depending on the ambient temperature, result in a net reduction of approximately 243,000 to 256,000 gpd in the KWPCA discharge to the Quinebaug River.

Cost Impacts

When compared to the CWC water supply option, using the KWPCA facility treated effluent for KEC facility makeup water would require significantly greater capital and operating costs. The installation of the pump station and pipeline to transfer treated effluent from the KWPCA facility to KEC, as described above, is currently estimated to cost $9-10 million. The installation of the additional makeup water treatment system equipment, as described above, is currently estimated to cost $3-4 million. Therefore, the total additional cost of equipment for the treated effluent supply from the KWPCA facility is currently estimated to be $12-14 million; which NTE would be obligated to fund. With the CWC water supply approach, NTE has committed to pay the cost of infrastructure upgrades (i.e. pipeline and storage tanks) that would not only ensure adequate water for the KEC facility but would also improve the reliability and capacity of water supply to the Town of Killingly to support and encourage further development in the region. Based on early estimates from the CWC, these infrastructure upgrades would cost no more than $5-6 million. Based on this, the incremental installed cost for the KWPCA facility treated effluent supply option is estimated to be a minimum of $6-9 million more than the CWC water supply option.

Beyond the additional expense for infrastructure, the KWPCA facility treated effluent supply option will require additional operating and maintenance costs (i.e. chemicals, energy

consumption, labor, water / wastewater commodity, consumables). Compared to the CWC water supply option, NTE estimates additional operating and maintenance costs associated with the use of treated effluent from the KWPCA facility to be approximately $500,000 per year.

Conclusion

The CWC water supply option is preferred because of the obvious benefits to KEC and the Town of Killingly including the following:

- Confirmation and commitment of adequate supply by CWC
- Improved reliability of the water supply to the Town of Killingly
- Increased capacity of the water supply to the Town of Killingly for future customers
- Simple and reliable KEC facility water treatment system
- Less makeup water flow
- Less wastewater discharge flow
- No impact on the flow to the Quinebaug River
- Lower installed cost of infrastructure and treatment equipment
- Lower KEC facility water treatment system operating and maintenance costs

Although the KWPCA facility treated effluent supply option is technically feasible, it has numerous drawbacks including the following:

- KWPCA not obligated nor under contract or letter of agreement to provide such water
- Infrastructure development that supports a single use, rather than the broader benefit associated with the CWC system connection
- Unknown variability of the treated effluent water quality

- Reduced reliability due to the increased complexity and extent of water treatment equipment
- Increased makeup water flow
- Increased wastewater discharge flow (loading on the KWPCA sewer system and treatment facility)
- Decreased flow to the Quinebaug River
- Substantially higher installed cost of pump / pipeline infrastructure (with no benefit to the Town of Killingly)
- Significantly higher installed cost of KEC facility makeup water treatment system
- Considerably higher KEC facility water treatment system operating and maintenance costs

CERTIFICATION OF SERVICE

I hereby certify that on this 1st day of December 2016, a copy of the foregoing was sent via electronic mail and first class U.S. Mail, to the following:

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Kenneth C. Baldwin

ATTACHMENT A

MICROBAC®

61 Louisa Viens Drive
Dayville, CT 06241
Fax: 860-774-2689
Phone: 860-774-6814
Toll-Free: 800-334-0103

ANALYTICAL DATA REPORT

prepared for:

NTE Carolinas II, LLC
24 Cathedral Place
Suite 300
St. Augustine, FL 32084
Attn: Chris Pollak

Report Number: E611383
Revision 1
Project: Killingly WPCF

Received Date: 11/03/2016
Report Date: 11/23/2016
Revision Date: 11/23/2016

David Dickinson
Technical Director

ACCREDITED IN ACCORDANCE WITH nelac

CT DPH #PH-0465 EPA #CT00008 KY EEC #90151 MA DEP #M-CT008 MD #349
ME DHHS #CT0050 NH ELAP #2020 NY ELAP #11549 PA DEP #68-04413 RI DOH #LAO00346 TN #04903
VA #460279 VT DOH #VT11549

101-000000527548

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Phone: 860-774-6814
Toll-Free: 800-334-0103

Report No: E611383
Client: NTE Connecticut, LLC
Project: Killingly WPCF

CASE NARRATIVE / METHOD CONFORMANCE SUMMARY

The results presented in this report relate only to the samples received.

This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included, along with a copy of the chain of custody and any subcontracted analyses reports, if applicable, for the sample(s) in this report. Subcontractor results are identified by 'SUB' next to the analysis.

Microbac Laboratories, Inc. received two samples from NTE Connecticut, LLC on 11/03/2016. The samples were analyzed for the following list of analyses in accordance with CT DPH regulations unless otherwise indicated:

Alkalinity, Bicarbonate by SM 2320B in DW/WW
SM 2320B
Ammonia as N by 350.1 in WW
350.1[350.2]
Bromide by IC Method 300.0
300.0
Chloride by SM4500-CL-E (-97)
4500CL-E
Fecal Coliforms (MF) by SM-9222D
SM 9222D[SM 9222D], UNKWN
Field TRC
SM4500-Cl-G
Field pH
4500H-B
Free Chlorine by SM4500 Cl G
SM4500-Cl-G
Kjeldahl Nitrogen (TKN) by 351.1 in WW
351.1[351.1]
Mercury by 245.2 in DW/WW
245.2[245.2]
Nitrate as N by SM4500-NO3 F in DW/WW
4500NO3-F
Orthophosphate as P by 365.1 in DW/WW
365.1
Solids: Total Dissolved [TDS] by SM2540C
SM2540C
Specific Conductance by SM2510B in DW/WW
SM2510B
Sulfate by SM 4500-SO4-E in WW
4500SO4-E
Sulfite by 377.1 in DW/WW
377.1
Total Oil & Grease by 1664A in WW
1664[1664]
Trace Metals by 200.7
Alkalinity, Total by SM2320B in DW/WW
SM2320B
BOD 5-Day by SM5210B
SM5210-B[SM5210-B], SM5210-B
COD by SM5220-D/Hach 8000
SM5220-D
Dissolved Silica by SM4500 Si E
4500SI-E
Field Conductivity
SM2510B
Field Temperature
170.1
Fluoride by SM4500F-C in WW
4500F-C[SM 4500-F-B]
Heterotrophic Plate Count by SM-9215B
SM 9215B[SM 9215B]
MBAS (Surfactants) by SM 5540C in DW/WW
5540C
Metals by ICP/MS 200.8
200.8[3000]
Nitrite as N by SM4500-NO3 F in DW/WW
4500NO3-F
Phosphorus, Total as P by 365.1 in DW/WW
365.1[365.1]
Solids: Total Suspended (TSS) by SM2540D
SM2540D
Subcontracted Metals
subcontracted
Sulfide by 376.2 in DW/WW
376.2
TPH by 8100M
8100[8100]
Total Organic Carbon (TOC) by SM5310C
5310C
Turbidity by SM2130B in DW

MICROBAC®

61 Louisa Viens Drive
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Phone: 860-774-6814
Toll-Free: 800-334-0103

Report No: E611383
Client: NTE Connecticut, LLC
Project: Killingly WPCF

CASE NARRATIVE / METHOD CONFORMANCE SUMMARY

The results presented in this report relate only to the samples received.

Trace Metals by 200.7
200.7[3000]
pH by SM 4500-H+B
4500H-B
Turbidity by SM2130B in DW
2130B

Non-Conformances:

Work Order:

None

Sample:

None

Analysis:

None

Microbac Laboratories, Inc.
Analytical Data Report

Report No: E611383
Date Received: 11/03/2016 08:20

Customer: NTE Connecticut, LLC
Project: Killingly WPCF

Parameter	Result	DL	Units	Completed	By	Dilution
(1) WPCF Effluent						
Date Collected: 11/03/2016 07:59 **Matrix: Aqueous**						
Alkalinity by SM2320B	210	1.0	mg/L	11/03/2016 15:21	AKS	
Alkalinity, Bicarbonate, by SM 2320B	210	1.0	mg/L	11/03/2016 15:21	AKS	
Ammonia as N by 350.1	0.33	0.050	mg/L	11/08/2016 09:42	CLW	
BOD 5-Day Start Time	16:10		Hours	11/03/2016 16:10	VLS	
BOD 5-Day Stop Time	11:20		Hours	11/08/2016 11:20	CMK	
BOD 5-Day by SM5210B	3.3	2.0	mg/L	11/08/2016 11:20	CMK	
COD by SM5220-D/Hach 8000	46	5.0	mg/L	11/03/2016 13:00	LMC	
Chloride by SM4500-CL-E (-97) in DW	96	4.0	mg/L	11/06/2016 20:22	DCH	2
Dissolved Silica by SM4500 Si E	14	2.0	mg/L	11/09/2016 12:25	CMK	20
Fluoride by SM4500F-C	ND	0.3	mg/L	11/07/2016	SUB	
Free Chlorine by SM4500-Cl-G	ND	0.050	mg/L	11/03/2016 07:59	CF	
Kjeldahl Nitrogen, Total (TKN) by 351.1	2.2	0.10	mg/L	11/07/2016 11:41	CLW	
MBAS (Surfactants) by 5540C	ND	0.050	mg/L	11/03/2016 23:28	DCH	
Nitrate as N by SM4500-NO3 F	1.5	0.050	mg/L	11/03/2016 19:44	DCH	
Nitrite as N by SM4500-NO3 F.	0.13	0.010	mg/L	11/03/2016 19:44	DCH	
Orthophosphate as P by 365.1	0.20	0.010	mg/L	11/03/2016 23:45	DCH	
Phosphorus as P by 365.1	0.32	0.010	mg/L	11/04/2016 09:09	CLW	
Solids, Dissolved (TDS) by SM2540C	510	10	mg/L	11/03/2016 19:30	LMC	
Solids, Suspended (TSS) by SM2540D	ND	2.0	mg/L	11/04/2016 17:05	LMC	
Specific Conductance by SM2510B	930	2.0	Micromhos/cm	11/03/2016 16:38	TWR	2
Sulfate by SM 4500-SO4-E in DW/WW	73	25	mg/L	11/03/2016 15:16	CLW	5
Sulfide by 376.2 in DW/WW	ND	0.010	mg/L	11/04/2016 14:42	CMK	
Total Organic Carbon (TOC) by SM5310C	9.66	0.20	mg/L	11/07/2016	SUB	
Turbidity by SM2130B	3.5	0.10	NTU	11/03/2016 19:32	AKS	
pH by SM 4500-H+B	7.8		pH Units	11/03/2016 19:31	AKS	
Bromide by IC method 300.0	<1.0	1.0	mg/L	11/05/2016	SUB	
Sulfite by 377.1 in DW/WW	ND	0.64	mg/L	11/04/2016 13:50	SUB	
Field Conductivity	860		micromhos/cm	11/03/2016 07:59	CF	
Field Residual Chlorine	ND	0.050	mg/L	11/03/2016 07:59	CF	
Field Temp	18		°C	11/03/2016 07:59	CF	
Field pH	6.8		pH Units	11/03/2016 07:59	CF	
Trace Metals by 200.7						
Aluminum	ND	0.050	mg/L	11/07/2016 11:23	HKC	
Barium	0.017	0.010	mg/L	11/07/2016 11:23	HKC	
Boron	0.098	0.0050	mg/L	11/07/2016 11:23	HKC	
Calcium	75	0.050	mg/L	11/07/2016 11:23	HKC	
Iron	0.13	0.050	mg/L	11/07/2016 11:23	HKC	
Magnesium	4.7	0.050	mg/L	11/07/2016 11:23	HKC	
Manganese	0.069	0.0020	mg/L	11/07/2016 11:23	HKC	
Potassium	44	0.20	mg/L	11/07/2016 11:23	HKC	
Sodium	78	1.0	mg/L	11/07/2016 11:23	HKC	
Tin	ND	0.0050	mg/L	11/07/2016 11:23	HKC	

Microbac Laboratories, Inc.
Analytical Data Report

Report No: E611383
Date Received: 11/03/2016 08:20

Customer: NTE Connecticut, LLC
Project: Killingly WPCF

Parameter	Result	DL	Units	Completed	By	Dilution
(1) WPCF Effluent						
Date Collected: 11/03/2016 07:59 **Matrix: Aqueous**						
Titanium	ND	0.0020	mg/L	11/07/2016 11:23	HKC	
Mercury by 245.2 in DW/WW	ND	0.00020	mg/L	11/07/2016 13:18	LM	
Subcontracted Metals	Attached		mg/L	11/18/2016	SUB	
Metals by ICP/MS 200.8						
Silver	ND	0.00050	mg/L	11/07/2016 12:03	NS	
Antimony	ND	0.00050	mg/L	11/07/2016 12:03	NS	
Arsenic	ND	0.0010	mg/L	11/07/2016 12:03	NS	
Beryllium	ND	0.00050	mg/L	11/07/2016 12:03	NS	
Chromium	0.00076	0.00050	mg/L	11/07/2016 12:03	NS	
Cobalt	ND	0.00050	mg/L	11/07/2016 12:03	NS	
Copper	0.0037	0.0010	mg/L	11/07/2016 12:03	NS	
Lead	ND	0.00050	mg/L	11/07/2016 12:03	NS	
Nickel	ND	0.0020	mg/L	11/07/2016 12:03	NS	
Strontium	0.11	0.0020	mg/L	11/10/2016 09:03	NS	
Selenium	ND	0.0020	mg/L	11/07/2016 12:03	NS	
Thallium	ND	0.0010	mg/L	11/07/2016 12:03	NS	
Vanadium	ND	0.0020	mg/L	11/07/2016 12:03	NS	
Zinc	0.031	0.010	mg/L	11/07/2016 12:03	NS	
Cadmium	ND	0.00030	mg/L	11/07/2016 12:03	NS	
(2) WPCF Effluent						
Date Collected: 11/03/2016 07:55 **Matrix: Aqueous**						
Oil & Grease by 1664A	ND	1.1	mg/L	11/08/2016 14:14	MRD	
Coliforms, Fecal (MF) by SM-9222D	5100		col/100ml	11/03/2016 15:44	AM	100
Heterotrophic Plate Count by SM-9215B	>5700		CFU/mL	11/03/2016 16:45	AM	
Coliforms, Fecal (MF) Start Time	15:44		Hours	11/03/2016 15:44	AM	
Coliforms, Fecal (MF) Stop Time	15:37		Hours	11/03/2016 15:37	AM	

Microbac Laboratories, Inc.
Analytical Data Report

Report No: E611383
Sample No: 1
Sample Description: WPCF Effluent

Customer: NTE Connecticut, LLC
Project: Killingly WPCF

Date Collected: 11/03/2016 07:59
Date Received: 11/03/2016 08:20
Date Extracted: 11/07/2016 09:50 By: JAN
Date Analyzed: 11/07/2016 16:22 By: MRB
Preparation Method: 8100
Analytical Method: 8100

Matrix: Aqueous
Percent Moisture: N/A
Sample Weight/Volume: 1000
Dilution Factor: 1
Extract Volume: 1
Lab Data File: M110708.D
QC Batch#: 146913

CAS No.	Parameter	Result	DL	Units
	C9-C36 TPH	ND	0.10	mg/L

Sample QC

Surrogate	Recovery	QC Limits
1-Chlorooctadecane	38%	25%-125%

PHOENIX
Environmental Laboratories, Inc.

Tuesday, November 08, 2016

Attn: Ms. Katherine Wall
Microbac Laboratories, Inc
61 Louisa Viens Drive
Dayville, CT 06241

Project ID: E611383
Sample ID#s: BV75704

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 08, 2016

FOR: Attn: Ms. Katherine Wall
Microbac Laboratories, Inc
61 Louisa Viens Drive
Dayville, CT 06241

Sample Information

Matrix: WATER
Location Code: MICROBAC
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date	Time
11/03/16	7:59
11/04/16	8:48

Laboratory Data

SDG ID: GBV75704
Phoenix ID: BV75704

Project ID: E611383
Client ID: 1F

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromide	< 1.0	1.0	mg/L	1	11/05/16	BS/EG	E300.0/SW9056A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
November 08, 2016
Reviewed and Released by: Kathleen Cressia, QA/QC Officer

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

November 08, 2016

QA/QC Data

SDG I.D.: GBV75704

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 365841 (mg/L), QC Sample No: BV75721 (BV75704)													
Bromide	BRL	1.0	<1.0	<1.0	NC	103			92.9			85 - 115	20

Comment:

Additional: LCS acceptance range is 85-115% MS acceptance range 75-125%.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
November 08, 2016

Sample Criteria Exceedances Report

GBV75704 - MICROBAC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

MICROBAC®

Chain of Custody

527548-101

For: Phoenix Environmental
587 East Middle Turnpike
Manchester, CT 06040

-2°C CI

Report to	Billing Information	Project Information
Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241 **Email Reports and Invoices to** **datareporting@premierlaboratory.com**	Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241	Project: E611383 State Certification: CT DPH Project Manager: EMail: katherine.wall@microbac.com Phone: 860-774-6814 Fax: 860-774-2689 Due Date: Standard TAT

Sample Identification	Date Collected	Time Collected	Sample Type	Sample Matrix	Cont. Type	Cont. Qty.	Preservative	Analysis
E611383-1F	11/3/2016	7:59	G	AQ	P	1	None	Bromide by IC method 300.0 75704

	Custody Transfer	Date	Time
Sampler:		11/3/16	15:15
Received:			
Relinquished:		11/4/16	8:46
Received:		11-4-16	8:48
Relinquished:			
Received:			

Comments:
7 Day TAT Please

Notify Premier Laboratory of any MCL exceedances with 24 hours of obtaining valid data.

Conditions Upon Receipt (Check One):

☐ Cooled ☐ Ambient °C Upon Receipt at LAB

NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number C1104-01

Prepared for:

Microbac Laboratory
61 Louisa Viens Drive
Dayville, CT 06241

Report Date: November 11, 2016

Director
New England Testing Laboratory, Inc.
Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
59 Greenhill Street, West Warwick, RI 02893
(401) 353-3420

Total # of Pages: 5

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The Samples listed in Table I were submitted to New England Testing Laboratory on November 04, 2016. The group of samples appearing in the report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. The case number for this sample submission is C1104-01.

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
E611383-1C	11/3/2016	Water	Table II
E611383-1D	11/3/2016	Water	Table III

TABLE II, Analysis and Methods

ANALYSIS	DETERMINATIVE METHOD
Fluoride	4500F C-1997
Sulfite	377.1

TABLE III, Analysis and Methods

ANALYSIS	DETERMINATIVE METHOD
Total Organic Carbon	5310C-2000

Methods are documented in:

Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, APHA, AWWA-WPCF

Manual of Methods for Chemical Analysis of Water and Water Wastes, EPA-600/4-29-020 (Revised 1983), USEPA/EMSL.

40 CFR 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act*, Office of Federal Register National Archives and Records Administration.

EPA-821-B-94-004

This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record.

CASE NARRATIVE

All samples were found to be properly preserved/cooled upon receipt. Procedure/calibration checks required by the designated protocols were within control limits.

The sample was received outside of the method recommended holding time for sulfite analysis.

E611383-1C

Parameter	Result, mg/l	Reporting Limit	Date Analyzed
Fluoride	ND	0.3	11/7/2016
Sulfite	ND	0.64	11/4/2016 @ 13:50

E611383-1D

Parameter	Result, mg/l	Reporting Limit	Date Analyzed
Total Organic Carbon	9.66	0.20	11/7/2016

ND = Not Detected

MICROBAC®

Chain of Custody

527548-120

For: New England Testing Lab
59 Greenhill Street
West Warwick, RI 02893

C1104-01

Report to	Billing Information	Project Information
Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241 **Email Reports and Invoices to** **datareporting@premierlaboratory.com**	Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241	Project: E611383 State Certification: CT DPH Project Manager: EMail: katherine.wall@microbac.com Phone: 860-774-6814 Fax: 860-774-2689 Due Date: Standard TAT

Sample Identification	Date Collected	Time Collected	Sample Type	Sample Matrix	Cont. Type	Cont. Qty	Preservative	Analysis
E611383-1C	11/3/2016	7:59	G	AQ	P	1	None	Fluoride by SM4500F-C
								Fluoride Distillation by SM 4500-F-B
						1		Sulfite by 377.1 in DW/WW
E611383-1D	11/3/2016	7:59	G	AQ	V	2	H2SO4	Total Organic Carbon (TOC) by SM5310C

	Custody Transfer	Date	Time
Sampler:			
Received:	RG-Kendeigh	11-3-16	17:23
Relinquished:	RG-Kendeigh	11-4-16	09:33
Received:		11/4/16	933
Relinquished:			
Received:			

Comments:
7 Day TAT Please!
Notify Premier Laboratory of any MCL exceedances with 24 hours of obtaining valid data.

Conditions Upon Receipt (Check One):

☑ Cooled	☐ Ambient	5	°C Upon Receipt at LAB

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 303-2500 Fax: (856) 858-4571 Email: EnvChemistry2@emsl.com

11/23/2016

Attn: **Katherine Wall**
Microbac Laboratories, Inc.
61 Louisa Viens Drive
Dayville, CT 06241
Phone: (800) 334-0103
Fax: (860) 774-2689

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 11/4/2016. The results are tabulated on the attached data pages for the following client designated project:

E611383

The reference number for these samples is EMSL Order #011607595. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (856) 303-2500.

Approved By:

Phillip Worby, Chemistry Laboratory Manager

The test results contained within this report meet the requirements of NELAP and/or the specific certification program that is applicable, unless otherwise noted.
NELAP Certifications: NJ 03036, NY 10872, PA 68-00367

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com EnvChemistry2@emsl.com

EMSL Order:	011607595
CustomerID:	PREM50
CustomerPO:	
ProjectID:	

Attn: **Katherine Wall**
Microbac Laboratories, Inc.
61 Louisa Viens Drive
Dayville, CT 06241

Phone: (800) 334-0103
Fax: (860) 774-2689
Received: 11/04/16 9:25 AM

Project: **E611383**

Analytical Results

Client Sample Description E611383-1B ***Collected:*** 11/3/2016 ***Lab ID:*** *0001*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
200.7	Silicon	5800	100	µg/L	11/10/2016	LY	11/18/2016	BE

Definitions:
ND - indicates that the analyte was not detected at the reporting limit
RL - Reporting Limit (Analytical)

MICROBAC

Chain of Custody

527548-362

011607595

For: EMSL-NJ
200 Route 130 North
Cinnaminson, NJ 08077

OrderID: 011607595

Report to	Billing Information	Project Information
Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241 **Email Reports and Invoices to** **datareporting@premierlaboratory.com**	Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241	Project: E611383 State Certification: CT DPH Project Manager: EMail: katherine.wall@microbac.com Phone: 860-774-6814 Fax: 860-774-2689 Due Date: Standard TAT

Sample Identification	Date Collected	Time Collected	Sample Type	Sample Matrix	Cont. Type	Cont. Qty	Preservative	Analysis
E611383-1B	11/3/2016	7:59	G	AQ	P	1	HNO3	Subcontracted Metals

	Custody Transfer	Date	Time
Sampler:			
Received:			
Relinquished:			
Received:	[signature]	11/4/16	11:25 2355
Relinquished:			
Received:			

Comments:
Silicon Only! 7 Days TAT
Notify Premier Laboratory of any MCL exceedances with 24 hours of obtaining valid data.

Conditions Upon Receipt (Check One):

☐	Cooled	☐	Ambient		°C Upon Receipt at LAB

CHAIN OF CUSTODY FORM

MICROBAC®

Microbac Laboratories, Inc.

61 Louisa Viens Drive - Dayville, CT 06241
Tel: (860)774-6814 - Fax: (860)774-2689

FOR LAB USE ONLY
Lab WO# T=61383
Project Manager

Copy of Report To

CUSTOMER: NTE Connecticut, LLC
ADDRESS:
DELIVERY:
E-MAIL:
PHONE: FAX:

Billing Information

BILL TO: NTE Carolinas II, LLC
ADDRESS: 24 Cathedral Place, Suite 300
St. Augustine, FL 32084
PURCHASE ORDER #
ATTENTION: Accounting Department
PHONE: (904)687-1857

Project Information

PROJECT: Killingly Energy Center
LOCATION: Killingly, CT
ANY QUESTIONS WHEN SAMPLES ARRIVE WE SHOULD CALL
PHONE:
FAX:

Sample Identification	Date Collected	Time Collected	Sample Type: COMPOSITE	Sample Type: GRAB	Sample Matrix	Number of Bottles	Analysis: Metals*	Alk, Bicarbonate, Cl, N3, N2, OP, SO4, Cond	TDS, TSS, TB, BOD, pH, Silica, MBAS	Fl, Sulfite	Fecal Coliform, HPC	Bromide	TOC	O&G	NH3, TP, TKN, COD	Sulfide	TPH	Preservatives: NON-PRES	HS2O4	HCL	HNO3	OTHER
WPCF Effluent	11/3/16	759	X			2	X														X	
		759	X			53	eF 11/3	X	X	X								X				
		755		X		2					X							X				
		759	X			1						X										X
		759	X			2							X						X			
PRESERVATIVE VERIFIED Initials		755		X		2								X					X			
		759	X			1									X				X			
		759	X			1										X						X
		759	X			2											X		X			

CUSTODY TRANSFER	DATE	TIME
SAMPLER:	11/3/16	759
RECEIVED:		
RELINQUISHED:	11/3/16	820
RECEIVED:		
RELINQUISHED:		
RECEIVED:	11/3/16	0820

TURN AROUND (INDICATE IN CALENDAR DAYS):

FAX ☐ HARD COPY ☐ E-MAIL ☐

EXPIDATED SERVICE MAY BE SUBJECT TO SURCHARGE

COMMENTS: pH, Temp, Cond, Free Cl, and TRC in field

*Metals: Na, K, Ca, Mg, Ba, Sr, Al, Fe, Mn, Sb, As, Be, B, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, Sn, Ti, V, Zn, Hg, Si

CONDITIONS UPON RECEIPT (CHECK ONE): COMPLIANT ☐

COOLED ☑ AMBIENT ☐ 4, 9

PREMIER LABORATORY, INC.
A MICROBAC LABORATORY

Groundwater Sampling Log

Location (Site/Facility/Project): NTE waste Date: 11/3/16
Field Personnel: CF Well ID: EFF

Date: / Time:	Color	Odor	Temp.	pH	Specific Cond.	DO	ORP	Turbidity	
753									
DRY? Y / N	Clear	organic	17.81	6.8	461	—	—	—	
Units:			°C	STD	µS/cm	mg/L	mv	NTU	

Well Inspection

Inspection	Situation	Status	Observation
Well Tag/ID	Is it in sight, on the well?	S / U	
Well Security	Condition of casing, cap, lock	S / U	
Well Pad	Type and Condition	S / U	
Area around well	Standing water? Trash? Etc...	S / U	
Dedicated Equipment	Type and Condition	S / U	
PVC Riser	Condition...	S / U	

S = Satisfactory U = Unsatisfactory circle one

Comments

FC - ND

TRC - ND

Well purged with (Bailer / Pump / Watara) Well sampled with (Bailer / Pump / Watara)

Measured		Sampled: Y / N	
Date:	Time:	Date:	Time:

Surface Volume found using PVC riser Diameter
Formula for Total Volume to be removed: (TD - DTW) * SV * 3 = TV

Total Depth (ft):	Depth To Water (ft):
Well Constant per Diameter (Single Volume) Circle One 1.25" = .077 / 2" = .162 / 4" = .650	Total Volume to be removed (gal):
Actual Volume removed (if different):	Number of Sample Bottles:

ATTACHMENT A

MICROBAC®

61 Louisa Viens Drive
Dayville, CT 06241
Fax: 860-774-2689
Phone: 860-774-6814
Toll-Free: 800-334-0103

ANALYTICAL DATA REPORT

prepared for:

NTE Carolinas II, LLC
24 Cathedral Place
Suite 300
St. Augustine, FL 32084
Attn: Chris Pollak

Report Number: E610202
Revision 2
Project: Killingly WPCF

Received Date: 10/04/2016
Report Date: 10/11/2016
Revision Date: 10/21/2016

David Dickinson
Technical Director

ACCREDITED IN ACCORDANCE WITH nelac

CT DPH #PH-0465 EPA #CT00008 KY EEC #90151 MA DEP #M-CT008 MD #349
ME DHHS #CT0050 NH ELAP #2020 NY ELAP #11549 PA DEP #68-04413 RI DOH #LAO00346 TN #04903
VA #460279 VT DOH #VT11549

101-000000523372

MICROBAC®

61 Louisa Viens Drive
Dayville, CT 06241
Fax: 860-774-2689
Phone: 860-774-6814
Toll-Free: 800-334-0103

Report No: E610202
Client: NTE Connecticut, LLC
Project: Killingly WPCF

CASE NARRATIVE / METHOD CONFORMANCE SUMMARY

The results presented in this report relate only to the samples received.

This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included, along with a copy of the chain of custody and any subcontracted analyses reports, if applicable, for the sample(s) in this report. Subcontractor results are identified by 'SUB' next to the analysis.

Microbac Laboratories, Inc. received one sample from NTE Connecticut, LLC on 10/04/2016. The sample was analyzed for the following list of analyses in accordance with CT DPH regulations unless otherwise indicated:

Alkalinity, Bicarbonate by SM 2320B in DW/WW
SM 2320B
Ammonia as N by 350.1 in WW
350.1[350.2]
Bromide by IC Method 300.0
300.0
Chloride by SM4500-CL-E (-97)
4500CL-E
Fecal Coliforms (MF) by SM-9222D
SM 9222D[SM 9222D], UNKWN
Field TRC
SM4500-Cl-G
Field pH
4500H-B
Free Chlorine by SM4500 Cl G
SM4500-Cl-G
Kjeldahl Nitrogen (TKN) by 351.1 in WW
351.1[351.1]
Mercury by 245.2 in DW/WW
245.2[245.2]
Nitrate as N by SM4500-NO3 F in DW/WW
4500NO3-F
Orthophosphate as P by 365.1 in DW/WW
365.1
Solids: Total Dissolved [TDS] by SM2540C
SM2540C
Specific Conductance by SM2510B in DW/WW
SM2510B
Sulfate by SM 4500-SO4-E in WW
4500SO4-E
Sulfite by 377.1 in DW/WW
377.1
Total Oil & Grease by 1664A in WW
1664[1664]
Trace Metals by 200.7

Alkalinity, Total by SM2320B in DW/WW
SM2320B
BOD 5-Day by SM5210B
SM5210-B[SM5210-B], SM5210-B
COD by SM5220-D/Hach 8000
SM5220-D
Dissolved Silica by SM4500 Si E
4500SI-E
Field Conductivity
SM2510B
Field Temperature
170.1
Fluoride by SM4500F-C in WW
4500F-C[SM 4500-F-B]
Heterotrophic Plate Count by SM-9215B
SM 9215B[SM 9215B]
MBAS (Surfactants) by SM 5540C in DW/WW
5540C
Metals by ICP/MS 200.8
200.8[3000]
Nitrite as N by SM4500-NO3 F in DW/WW
4500NO3-F
Phosphorus, Total as P by 365.1 in DW/WW
365.1[365.1]
Solids: Total Suspended (TSS) by SM2540D
SM2540D
Subcontracted Metals
subcontracted
Sulfide by 376.2 in DW/WW
376.2
TPH by 8100M
8100[8100]
Total Organic Carbon (TOC) by SM5310C
5310C
Turbidity by SM2130B in DW

MICROBAC®

61 Louisa Viens Drive
Dayville, CT 06241
Fax: 860-774-2689
Phone: 860-774-6814
Toll-Free: 800-334-0103

Report No: E610202
Client: NTE Connecticut, LLC
Project: Killingly WPCF

CASE NARRATIVE / METHOD CONFORMANCE SUMMARY

The results presented in this report relate only to the samples received.

Trace Metals by 200.7
200.7[3000]
pH by SM 4500-H+B
4500H-B

Turbidity by SM2130B in DW
2130B

Non-Conformances:

Work Order:

None

Sample:

None

Analysis:

Sample 1H, WPCF Effluent, Oil & Grease by 1664A: Oil and Grease recovery for the matrix spike was below the established quality control limits at 29%. The associated laboratory control sample recovery was within the established quality control limits.

Microbac Laboratories, Inc.
Analytical Data Report

Report No: E610202
Date Received: 10/04/2016 08:30

Customer: NTE Connecticut, LLC
Project: Killingly WPCF

Parameter	Result	DL	Units	Completed	By	Dilution
(1) WPCF Effluent						
Date Collected: 10/04/2016 08:07 **Matrix: Aqueous**						
Alkalinity by SM2320B	240	1.0	mg/L	10/04/2016 16:46	AKS	
Alkalinity, Bicarbonate, by SM 2320B	240	1.0	mg/L	10/04/2016 16:46	AKS	
Ammonia as N by 350.1	0.53	0.050	mg/L	10/06/2016 15:06	CLW	
BOD 5-Day Start Time	22:35		Hours	10/04/2016 22:35	VLS	
BOD 5-Day Stop Time	18:13		Hours	10/09/2016 18:13	HEB	
BOD 5-Day by SM5210B	4.7	2.0	mg/L	10/09/2016 18:13	HEB	
COD by SM5220-D/Hach 8000	48	5.0	mg/L	10/06/2016 13:17	LMC	
Chloride by SM4500-CL-E (-97) in DW	96	4.0	mg/L	10/04/2016 21:08	HEB	2
Dissolved Silica by SM4500 Si E	15	2.5	mg/L	10/06/2016 17:57	CMK	25
Fluoride by SM4500F-C	ND	0.3	mg/L	10/07/2016	SUB	
Free Chlorine by SM4500-Cl-G	ND	0.050	mg/L	10/04/2016 11:35	CF	
Kjeldahl Nitrogen, Total (TKN) by 351.1	2.0	0.40	mg/L	10/07/2016 13:06	CLW	
MBAS (Surfactants) by 5540C	ND	0.050	mg/L	10/05/2016 18:30	HEB	
Nitrate as N by SM4500-NO3 F	3.9	0.050	mg/L	10/04/2016 17:12	HEB	
Nitrite as N by SM4500-NO3 F.	0.28	0.010	mg/L	10/04/2016 17:12	HEB	
Oil & Grease by 1664A	2.7	1.0	mg/L	10/06/2016 12:25	MRD	
Orthophosphate as P by 365.1	0.12	0.010	mg/L	10/04/2016 18:58	HEB	
Phosphorus as P by 365.1	0.21	0.010	mg/L	10/05/2016 09:09	CLW	
Solids, Dissolved (TDS) by SM2540C	590	10	mg/L	10/04/2016 21:40	LMC	
Solids, Suspended (TSS) by SM2540D	ND	2.0	mg/L	10/04/2016 15:00	LMC	
Specific Conductance by SM2510B	1200	2.0	Micromhos/cm	10/05/2016 22:29	CAL	2
Sulfate by SM 4500-SO4-E in DW/WW	110	25	mg/L	10/05/2016 15:41	HEB	5
Sulfide by 376.2 in DW/WW	ND	0.010	mg/L	10/07/2016 14:55	CMK	
Total Organic Carbon (TOC) by SM5310C	22	0.50	mg/L	10/06/2016 23:58	DCH	
Turbidity by SM2130B	3.2	0.10	NTU	10/04/2016 23:18	AKS	
pH by SM 4500-H+B	7.5		pH Units	10/04/2016 23:25	AKS	
Coliforms, Fecal (MF) by SM-9222D	4400		col/100ml	10/04/2016 15:29	AM	100
Heterotrophic Plate Count by SM-9215B	>5700		CFU/mL	10/04/2016 18:10	AM	
Bromide by IC method 300.0	ND	1.0	mg/L	10/05/2016	SUB	1
Sulfite by 377.1 in DW/WW	ND	0.64	mg/L	10/05/2016 18:15	SUB	
Field Conductivity	1000		micromhos/cm	10/04/2016 08:07	CF	
Field Residual Chlorine	ND	0.050	mg/L	10/04/2016 11:35	CF	
Field Temp	20		°C	10/04/2016 08:07	CF	
Field pH	7.0		pH Units	10/04/2016 08:07	CF	
Coliforms, Fecal (MF) Start Time	15:29		Hours	10/04/2016 15:29	AM	
Coliforms, Fecal (MF) Stop Time	15:50		Hours	10/05/2016 15:50	AM	
Trace Metals by 200.7						
Aluminum	42	10	ug/L	10/06/2016 11:38	HKC	
Barium	17	10	ug/L	10/06/2016 11:38	HKC	
Boron	110	5.0	ug/L	10/06/2016 11:38	HKC	
Calcium	77000	50	ug/L	10/06/2016 11:38	HKC	
Iron	140	50	ug/L	10/06/2016 11:38	HKC	

Microbac Laboratories, Inc.
Analytical Data Report

Report No: E610202
Date Received: 10/04/2016 08:30

Customer: NTE Connecticut, LLC
Project: Killingly WPCF

Parameter	Result	DL	Units	Completed	By	Dilution
(1) WPCF Effluent						
Date Collected: 10/04/2016 08:07 **Matrix: Aqueous**						
Magnesium	4800	50	ug/L	10/06/2016 11:38	HKC	
Manganese	52	2.0	ug/L	10/06/2016 11:38	HKC	
Potassium	50000	200	ug/L	10/06/2016 11:38	HKC	
Sodium	100000	1000	ug/L	10/06/2016 11:38	HKC	
Tin	ND	5.0	ug/L	10/06/2016 11:38	HKC	
Titanium	ND	2.0	ug/L	10/06/2016 11:38	HKC	
Mercury by 245.2 in DW/WW	ND	0.20	ug/L	10/05/2016 13:16	LM	
Subcontracted Metals	5700	100	ug/L	10/08/2016	SUB	
Metals by ICP/MS 200.8						
Silver	ND	0.50	ug/L	10/06/2016 12:56	NS	
Antimony	ND	0.50	ug/L	10/06/2016 12:56	NS	
Arsenic	ND	1.0	ug/L	10/06/2016 12:56	NS	
Beryllium	ND	0.50	ug/L	10/06/2016 12:56	NS	
Chromium	0.82	0.50	ug/L	10/06/2016 12:56	NS	
Cobalt	ND	0.50	ug/L	10/06/2016 12:56	NS	
Copper	4.4	1.0	ug/L	10/06/2016 12:56	NS	
Lead	ND	0.50	ug/L	10/06/2016 12:56	NS	
Nickel	ND	2.0	ug/L	10/06/2016 12:56	NS	
Strontium	110	4.0	ug/L	10/07/2016 10:58	NS	2
Selenium	ND	2.0	ug/L	10/06/2016 12:56	NS	
Thallium	ND	1.0	ug/L	10/06/2016 12:56	NS	
Vanadium	ND	2.0	ug/L	10/06/2016 12:56	NS	
Zinc	36	10	ug/L	10/06/2016 12:56	NS	
Cadmium	ND	0.30	ug/L	10/06/2016 12:56	NS	

Microbac Laboratories, Inc.
Analytical Data Report

Report No: E610202
Sample No: 1
Sample Description: WPCF Effluent

Customer: NTE Connecticut, LLC
Project: Killingly WPCF

Date Collected: 10/04/2016 08:07
Date Received: 10/04/2016 08:30
Date Extracted: 10/04/2016 10:30 By: JAN
Date Analyzed: 10/04/2016 17:31 By: MRB
Preparation Method: 8100
Analytical Method: 8100

Matrix: Aqueous
Percent Moisture: N/A
Sample Weight/Volume: 1000
Dilution Factor: 1
Extract Volume: 1
Lab Data File: M100413.D
QC Batch#: 145737

CAS No.	Parameter	Result	DL	Units
	C9-C36 TPH	0.13	0.10	mg/L

Sample QC

Surrogate	Recovery	QC Limits
1-Chlorooctadecane	38%	25%-125%

PHOENIX
Environmental Laboratories, Inc.

Friday, October 07, 2016

Attn: Mr. Jake Rusconi
Microbac Laboratories, Inc
61 Louisa Viens Drive
Dayville, CT 06241

Project ID: E610202
Sample ID#s: BV37331

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

October 07, 2016

FOR: Attn: Mr. Jake Rusconi
Microbac Laboratories, Inc
61 Louisa Viens Drive
Dayville, CT 06241

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:		10/04/16	8:07
Location Code:	MICROBAC	Received by:	SW	10/05/16	13:15
Rush Request:	48 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBV37331
Phoenix ID: BV37331

Project ID: E610202
Client ID: E610202-1F

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromide	< 1.0	1.0	mg/L	1	10/05/16	BS/EG	E300.0/SW9056A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
October 07, 2016
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

October 07, 2016

QA/QC Data

SDG I.D.: GBV37331

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 361798 (mg/L), QC Sample No: BV38410 (BV37331)													
Bromide	BRL	1.0	<1.0	<1.0	NC	102			96.3			85 - 115	20

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
October 07, 2016

Sample Criteria Exceedences Report

GBV37331 - MICROBAC

Criteria: None

State: CT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

MICROBAC®

Chain of Custody

523372-101

For: Phoenix Environmental
587 East Middle Turnpike
Manchester, CT 06040

2°W/ICE

Report to	Billing Information	Project Information
Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241 **Email Reports and Invoices to** **datareporting@premierlaboratory.com**	Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241	Project: E610202 State Certification: CT DPH Project Manager: EMail: katherine.wall@microbac.com Phone: 860-774-6814 Fax: 860-774-2689 Due Date: ~~Standard TAT~~ 2day TAT

Sample Identification	Date Collected	Time Collected	Sample Type	Sample Matrix	Cont. Type	Cont. Qty	Preservative	Analysis
E610202-1F	10/4/2016	8:07	G	AQ	P		None	Bromide by IC method 300.0

37331

	Custody Transfer	Date	Time
Sampler:		10/5/16	840
Received:			
Relinquished:		10/5/16	1314
Received:		10/5/16	1315
Relinquished:			
Received:			

Comments: Wastewater

Notify Premier Laboratory of any MCL exceedances with 24 hours of obtaining valid data.

Conditions Upon Receipt (Check One):

☑ Cooled ☐ Ambient °C Upon Receipt at LAB

NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number C1005-03

Prepared for:

Microbac Laboratory
61 Louisa Viens Drive
Dayville, CT 06241

Report Date: October 7, 2016

Director
New England Testing Laboratory, Inc
Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
59 Greenhill Street, West Warwick, RI 02893
(401) 353-3420

Total # of Pages: 5

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The Samples listed in Table I were submitted to New England Testing Laboratory on October 05, 2016. The group of samples appearing in the report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. The case number for this sample submission is C1005-03.

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
E610202-1C	10/4/2016	Water	Table II

TABLE II, Analysis and Methods

ANALYSIS	DETERMINATIVE METHOD
Fluoride	4500F C-1997
Sulfite	377.1

Methods are documented in:

Standard Methods for the Examination of Water and Wastewater , 20th Edition, 1998, APHA, AWWA-WPCF

Manual of Methods for Chemical Analysis of Water and Water Wastes , EPA-600/4-29-020 (Revised 1983), USEPA/EMSL.

40 CFR 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act* , Office of Federal Register National Archives and Records Administration.

EPA-821-B-94-004

This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record.

CASE NARRATIVE

All samples were found to be properly preserved/cooled upon receipt. Procedure/calibration checks required by the designated protocols were within control limits.

The sample was received outside of the method specified holding time for sulfite analysis.

E610202-1C

Parameter	Result, mg/l	Reporting Limit	Date Analyzed
Fluoride	ND	0.3	10/7/2016
Sulfite	ND	0.64	10/5/2016 @ 18:15

ND = Not Detected

MICROBAC®

Chain of Custody

523372-120

For: New England Testing Lab
59 Greenhill Street
West Warwick, RI 02893

C1005-03

Report to	Billing Information	Project Information
Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241 **Email Reports and Invoices to** **datareporting@premierlaboratory.com**	Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241	Project: E610202 State Certification: CT DPH Project Manager: EMail: katherine.wall@microbac.com Phone: 860-774-6814 Fax: 860-774-2689 Due Date: ~~Standard TAT~~ 2: Day TAT

Sample Identification	Date Collected	Time Collected	Sample Type	Sample Matrix	Cont. Type	Cont. Qty.	Preservative	Analysis
E610202-1C	10/4/2016	8:07	G	AQ	P	1	None	Fluoride by SM4500F-C
								Fluoride Distillation by SM 4500-F-B
								Sulfite by 377.1 in DW/WW

	Custody Transfer	Date	Time
Sampler:			
Received:			
Relinquished:			
Received:	Molly Raunch	10-4-16	17:00
Relinquished:	Molly Raunch	10-5-16	1000
Received:	[signature]	10/5/16	1000

Comments: Wastewater

Notify Premier Laboratory of any MCL exceedances with 24 hours of obtaining valid data.

Conditions Upon Receipt (Check One):

☑ Cooled	☐ Ambient	4	°C Upon Receipt at LAB

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 303-2500 Fax: (856) 858-4571 Email: EnvChemistry2@emsl.com

10/10/2016

Attn: **Katherine Wall**
Microbac Laboratories, Inc.
61 Louisa Viens Drive
Dayville, CT 06241
Phone: (800) 334-0103
Fax: (860) 774-2689

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 10/5/2016. The results are tabulated on the attached data pages for the following client designated project:

E610202 / CT DPH

The reference number for these samples is EMSL Order #011606532. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (856) 303-2500.

Approved By:

Phillip Worby, Chemistry Laboratory Manager

The test results contained within this report meet the requirements of NELAP and/or the specific certification program that is applicable, unless otherwise noted.
NELAP Certifications: NJ 03036, NY 10872, PA 68-00367

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com EnvChemistry2@emsl.com

EMSL Order: 011606532
CustomerID: PREM50
CustomerPO:
ProjectID:

Attn: **Katherine Wall**
Microbac Laboratories, Inc.
61 Louisa Viens Drive
Dayville, CT 06241

Phone: (800) 334-0103
Fax: (860) 774-2689
Received: 10/05/16 9:40 AM

Project: **E610202 / CT DPH**

Analytical Results

Client Sample Description E610202-1B ***Collected:*** 10/4/2016 ***Lab ID:*** *0001*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
200.7	Silicon	5700	100	µg/L	10/6/2016	LY	10/8/2016	BE

Definitions:
ND - indicates that the analyte was not detected at the reporting limit
RL - Reporting Limit (Analytical)

MICROBAC®

Chain of Custody

523372-362

For: EMSL-NJ
200 Route 130 North
Cinnaminson, NJ 08077

OrderID: 011606532

011606532

Report to	Billing Information	Project Information
Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241 **Email Reports and Invoices to** **datareporting@premierlaboratory.com**	Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241	Project: E610202 State Certification: CT DPH Project Manager: EMail: katherine.wall@microbac.com Phone: 860-774-6814 Fax: 860-774-2689 Due Date: ~~Standard TAT~~ 3 Day TAT

	Sample Identification	Date Collected	Time Collected	Sample Type	Sample Matrix	Cont. Type	Cont. Qty	Preservative	Analysis
1	E610202-1B	10/4/2016	8:07	G	AQ	P	1	HNO3	Subcontracted Metals

Page 1 Of 1

	Custody Transfer	Date	Time
Sampler:			
Received:			
Relinquished:	Michael Howe	10/4/16	1515
Received:		10/5/16	09:40 4°
Relinquished:			
Received:			

Comments: Silicon only

Notify Premier Laboratory of any MCL exceedances with 24 hours of obtaining valid data.

Conditions Upon Receipt (Check One):

☐ Cooled ☐ Ambient °C Upon Receipt at LAB

MICROBAC®

Microbac Laboratories, Inc.

CHAIN OF CUSTODY FORM

61 Louisa Viens Drive - Dayville, CT 06241
Tel: (860)774-6814 - Fax: (860)774-2689

FOR LAB USE ONLY
Lab WO# E610202
Project Manager MAW

Copy of Report To

CUSTOMER: NTE Connecticut, LLC
ADDRESS:
DELIVERY:
E-MAIL:
PHONE: FAX:

Billing Information

BILL TO: NTE Carolinas II, LLC
ADDRESS: 24 Cathedral Place, Suite 300
St. Augustine, FL 32084
PURCHASE ORDER #
ATTENTION: Accounting Department
PHONE: (904)687-1857

Project Information

PROJECT: Killingly Energy Center
LOCATION: Killingly, CT
ANY QUESTIONS WHEN SAMPLES ARRIVE WE SHOULD CALL
PHONE:
FAX:

Sample Identification	Date Collected	Time Collected	Sample Type: COMPOSITE	Sample Type: GRAB	Sample Matrix	Number of Bottles	Analysis: Metals*	Alk, Bicarbonate, Cl, N3, N2, OP, SO4, Cond	TDS, TSS, TB, BOD, pH, Silica, MBAS	Fl, Sulfite	Fecal Coliform, HPC	Bromide	TOC	O&G	NH3, TP, TKN, COD	Sulfide	TPH	Preservatives: NON-PRES	HS2O4	HCL	HNO3	OTHER
WPCF Effluent	10/4/16	807	X		CF 6013	2	X														X	
		807	X			3		X	X	X								X				
		8:05		X		2					X							X				
		807	X			1						X										X
		807	X			2							X						X			
		8:05		X		2								X					X			
PRESERVATIVE VERIFIED Initials		807	X			1									X				X			
		807	X			1										X						X
		807	X			2											X		X			

CUSTODY TRANSFER	DATE	TIME
SAMPLER:	10/4/16	807
RECEIVED:		
RELINQUISHED:	10/4/16	8:30
RECEIVED:		
RELINQUISHED:		
RECEIVED:	10/5/16	0830

TURN AROUND (INDICATE IN CALENDAR DAYS):

FAX ☐ HARD COPY ☐ E-MAIL ☐

EXPIDATED SERVICE MAY BE SUBJECT TO SURCHARGE 3 Day Rush

COMMENTS: pH, Temp, Cond, Free Cl, and TRC in field

*Metals: Na, K, Ca, Mg, Ba, Sr, Al, Fe, Mn, Sb, As, Be, B, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, Sn, Ti, V, Zn, Hg, Si

CONDITIONS UPON RECEIPT (CHECK ONE): COMPLIANT ☐

COOLED ☑ AMBIENT ☐ 5.4

PREMIER LABORATORY, INC.

Groundwater Sampling Log

Location (Site/Facility/Project): Killing Ly Water Treatment Date: 10/4/16
Field Personnel: CF Well ID: Eff

Date: Time:	Color	Odor	Temp.	pH	Specific Cond.	DO	ORP	Turbidity	
8:00									
DRY? Y / N	Lt Brown	Organic	19.90	7.03	1018	—	—	—	
Units:			°C	STD	µS/cm	mg/L	mv	NTU	

Well Inspection

Inspection	Situation	Status	Observation
Well Tag/ID	Is it in sight, on the well?	S / U	
Well Security	Condition of casing, cap, lock	S / U	
Well Pad	Type and Condition	S / U	
Area around well	Standing water? Trash? Etc...	S / U	
Dedicated Equipment	Type and Condition	S / U	
PVC Riser	Condition...	S / U	

S = Satisfactory U = Unsatisfactory circle one

Comments

Effluent composite / Grab samples for NTE

TRC-ND >1135 CF
Free Cl-ND

Well purged with (Bailer / Pump / Watara) Well sampled with (Bailer / Pump / Watara)

Measured Sampled: Y / N

Date: Time: Date: Time:

Surface Volume found using PVC riser Diameter

Formula for Total Volume to be removed: (TD - DTW) * SV * 3 = TV

Total Depth (ft):	Depth To Water (ft):
Well Constant per Diameter (Single Volume) Circle One 1.25" = .077 / 2" = .162 / 4" = .650	Total Volume to be removed (gal)
Actual Volume removed (if	Number of Sample Bottles:

ATTACHMENT A

MICROBAC®

61 Louisa Viens Drive
Dayville, CT 06241
Fax: 860-774-2689
Phone: 860-774-6814
Toll-Free: 800-334-0103

ANALYTICAL DATA REPORT

prepared for:

NTE Carolinas II, LLC
24 Cathedral Place
Suite 300
St. Augustine, FL 32084
Attn: Chris Pollak

Report Number: E610S90
Revision 3
Project: Killingly WPCF

Received Date: 10/27/2016
Report Date: 11/03/2016
Revision Date: 11/03/2016

David Dickinson
Technical Director

ACCREDITED IN ACCORDANCE WITH nelac

CT DPH #PH-0465 EPA #CT00008 KY EEC #90151 MA DEP #M-CT008 MD #349
ME DHHS #CT0050 NH ELAP #2020 NY ELAP #11549 PA DEP #68-04413 RI DOH #LAO00346 TN #04903
VA #460279 VT DOH #VT11549

101-000000526668

MICROBAC®

61 Louisa Viens Drive
Dayville, CT 06241
Fax: 860-774-2689
Phone: 860-774-6814
Toll-Free: 800-334-0103

Report No: E610S90
Client: NTE Connecticut, LLC
Project: Killingly WPCF

CASE NARRATIVE / METHOD CONFORMANCE SUMMARY

The results presented in this report relate only to the samples received.

This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included, along with a copy of the chain of custody and any subcontracted analyses reports, if applicable, for the sample(s) in this report. Subcontractor results are identified by 'SUB' next to the analysis.

Microbac Laboratories, Inc. received two samples from NTE Connecticut, LLC on 10/27/2016. The samples were analyzed for the following list of analyses in accordance with CT DPH regulations unless otherwise indicated:

Alkalinity, Bicarbonate by SM 2320B in DW/WW
SM 2320B
Ammonia as N by 350.1 in WW
350.1[350.2]
Bromide by IC Method 300.0
300.0
Chloride by SM4500-CL-E (-97)
4500CL-E
Fecal Coliforms (MF) by SM-9222D
SM 9222D[SM 9222D], UNKWN
Field TRC
SM4500-Cl-G
Field pH
4500H-B
Free Chlorine by SM4500 Cl G
SM4500-Cl-G
Kjeldahl Nitrogen (TKN) by 351.1 in WW
351.1[351.1]
Mercury by 245.2 in DW/WW
245.2[245.2]
Nitrate as N by SM4500-NO3 F in DW/WW
4500NO3-F
Orthophosphate as P by 365.1 in DW/WW
365.1
Solids: Total Dissolved [TDS] by SM2540C
SM2540C
Specific Conductance by SM2510B in DW/WW
SM2510B
Sulfate by SM 4500-SO4-E in WW
4500SO4-E
Sulfite by 377.1 in DW/WW
377.1
Total Oil & Grease by 1664A in WW
1664[1664]
Trace Metals by 200.7

Alkalinity, Total by SM2320B in DW/WW
SM2320B
BOD 5-Day by SM5210B
SM5210-B[SM5210-B], SM5210-B
COD by SM5220-D/Hach 8000
SM5220-D
Dissolved Silica by SM4500 Si E
4500SI-E
Field Conductivity
SM2510B
Field Temperature
170.1
Fluoride by SM4500F-C in WW
4500F-C[SM 4500-F-B]
Heterotrophic Plate Count by SM-9215B
SM 9215B[SM 9215B]
MBAS (Surfactants) by SM 5540C in DW/WW
5540C
Metals by ICP/MS 200.8
200.8[3000]
Nitrite as N by SM4500-NO3 F in DW/WW
4500NO3-F
Phosphorus, Total as P by 365.1 in DW/WW
365.1[365.1]
Solids: Total Suspended (TSS) by SM2540D
SM2540D
Subcontracted Metals
subcontracted
Sulfide by 376.2 in DW/WW
376.2
TPH by 8100M
8100[8100]
Total Organic Carbon (TOC) by SM5310C
5310C
Turbidity by SM2130B in DW

MICROBAC®

61 Louisa Viens Drive
Dayville, CT 06241
Fax: 860-774-2689
Phone: 860-774-6814
Toll-Free: 800-334-0103

Report No: E610S90
Client: NTE Connecticut, LLC
Project: Killingly WPCF

CASE NARRATIVE / METHOD CONFORMANCE SUMMARY

The results presented in this report relate only to the samples received.

Trace Metals by 200.7
200.7[3000]
pH by SM 4500-H+B
4500H-B
Turbidity by SM2130B in DW
2130B

11/1/2016: This is only a partial report generated at the client's request. Analyses listed on the chain of custody but not included in this report are incomplete at the time the report was generated.

Non-Conformances:

Work Order:

None

Sample:

None

Analysis:

None

Microbac Laboratories, Inc.
Analytical Data Report

Report No: E610S90
Date Received: 10/27/2016 08:35

Customer: NTE Connecticut, LLC
Project: Killingly WPCF

Parameter	Result	DL	Units	Completed	By	Dilution
(1) WPCF Effluent						
Date Collected: 10/27/2016 08:00 **Matrix: Aqueous**						
Alkalinity by SM2320B	240	1.0	mg/L	10/27/2016 15:32	AKS	
Alkalinity, Bicarbonate, by SM 2320B	240	1.0	mg/L	10/27/2016 17:00	AKS	
Ammonia as N by 350.1	0.38	0.050	mg/L	10/31/2016 11:28	CLW	
BOD 5-Day Start Time	17:10		Hours	10/27/2016 17:10	VLS	
BOD 5-Day Stop Time	11:40		Hours	11/01/2016 11:40	CMK	
BOD 5-Day by SM5210B	3.0	2.0	mg/L	11/01/2016 11:40	CMK	
COD by SM5220-D/Hach 8000	45	5.0	mg/L	11/01/2016 12:15	LMC	
Chloride by SM4500-CL-E (-97) in DW	97	4.0	mg/L	10/28/2016 15:08	HEB	2
Dissolved Silica by SM4500 Si E	14	1.0	mg/L	10/28/2016 17:41	CMK	10
Fluoride by SM4500F-C	ND	0.3	mg/L	10/31/2016	SUB	
Free Chlorine by SM4500-Cl-G	ND	0.050	mg/L	10/27/2016 08:00	CF	
Kjeldahl Nitrogen, Total (TKN) by 351.1	2.2	0.10	mg/L	11/01/2016 08:52	CLW	
MBAS (Surfactants) by 5540C	ND	0.050	mg/L	10/28/2016 09:30	CMK	
Nitrate as N by SM4500-NO3 F	1.5	0.050	mg/L	10/27/2016 18:31	DCH	
Nitrite as N by SM4500-NO3 F.	0.35	0.010	mg/L	10/27/2016 18:31	DCH	
Orthophosphate as P by 365.1	0.20	0.010	mg/L	10/27/2016 17:39	DCH	
Phosphorus as P by 365.1	0.30	0.010	mg/L	10/28/2016 09:33	CLW	
Solids, Dissolved (TDS) by SM2540C	580	10	mg/L	10/31/2016 20:52	LMC	
Solids, Suspended (TSS) by SM2540D	2.4	2.0	mg/L	10/31/2016 17:50	LMC	
Specific Conductance by SM2510B	960	2.0	Micromhos/cm	10/27/2016 20:15	CAL	2
Sulfate by SM 4500-SO4-E in DW/WW	95	25	mg/L	10/27/2016 15:34	CLW	5
Sulfide by 376.2 in DW/WW	ND	0.010	mg/L	10/31/2016 14:05	CMK	
Total Organic Carbon (TOC) by SM5310C	7.35	1.00	mg/L	11/03/2016	SUB	
Turbidity by SM2130B	1.7	0.10	NTU	10/27/2016 19:41	AKS	
pH by SM 4500-H+B	7.2		pH Units	10/27/2016 19:39	AKS	
Bromide by IC method 300.0	<1.0	1.0	mg/L	10/29/2016	SUB	
Sulfite by 377.1 in DW/WW	ND	0.64	mg/L	10/28/2016 12:30	SUB	
Field Conductivity	1000		micromhos/cm	10/27/2016 08:00	CF	
Field Residual Chlorine	ND	0.050	mg/L	10/27/2016 08:00	CF	
Field Temp	16		°C	10/27/2016 08:00	CF	
Field pH	7.4		pH Units	10/27/2016 08:00	CF	
Trace Metals by 200.7						
Aluminum	0.054	0.010	mg/L	10/31/2016 11:41	NJB	
Barium	0.014	0.010	mg/L	10/31/2016 11:41	NJB	
Boron	0.088	0.0050	mg/L	10/31/2016 11:41	NJB	
Calcium	78	0.050	mg/L	10/31/2016 11:41	NJB	
Iron	0.16	0.050	mg/L	10/31/2016 11:41	NJB	
Magnesium	5.0	0.050	mg/L	10/31/2016 11:41	NJB	
Manganese	0.077	0.0020	mg/L	10/31/2016 11:41	NJB	
Potassium	48	0.20	mg/L	10/31/2016 11:41	NJB	
Sodium	92	1.0	mg/L	10/31/2016 11:41	NJB	
Tin	ND	0.0050	mg/L	10/31/2016 11:41	NJB	

Microbac Laboratories, Inc.
Analytical Data Report

Report No: E610S90
Date Received: 10/27/2016 08:35

Customer: NTE Connecticut, LLC
Project: Killingly WPCF

Parameter	Result	DL	Units	Completed	By	Dilution
(1) WPCF Effluent						
Date Collected: 10/27/2016 08:00	**Matrix: Aqueous**					
Titanium	ND	0.0020	mg/L	10/31/2016 11:41	NJB	
Mercury by 245.2 in DW/WW	ND	0.00020	mg/L	10/31/2016 12:47	LM	
Subcontracted Metals	Attached		mg/L	11/02/2016	SUB	
Metals by ICP/MS 200.8						
Silver	ND	0.00050	mg/L	10/31/2016 14:08	NS	
Antimony	ND	0.00050	mg/L	10/31/2016 14:08	NS	
Arsenic	ND	0.0010	mg/L	10/31/2016 14:08	NS	
Beryllium	ND	0.00050	mg/L	10/31/2016 14:08	NS	
Chromium	0.00091	0.00050	mg/L	10/31/2016 14:08	NS	
Cobalt	ND	0.00050	mg/L	10/31/2016 14:08	NS	
Copper	0.0034	0.0010	mg/L	10/31/2016 14:08	NS	
Lead	ND	0.00050	mg/L	10/31/2016 14:08	NS	
Nickel	ND	0.0020	mg/L	10/31/2016 14:08	NS	
Strontium	0.10	0.0020	mg/L	11/01/2016 10:19	NS	
Selenium	ND	0.0020	mg/L	10/31/2016 14:08	NS	
Thallium	ND	0.0010	mg/L	10/31/2016 14:08	NS	
Vanadium	ND	0.0020	mg/L	10/31/2016 14:08	NS	
Zinc	0.026	0.010	mg/L	10/31/2016 14:08	NS	
Cadmium	ND	0.00030	mg/L	10/31/2016 14:08	NS	
(2) WPCF Effluent						
Date Collected: 10/27/2016 08:10	**Matrix: Aqueous**					
Oil & Grease by 1664A	ND	1.0	mg/L	10/31/2016 13:38	MRD	
Coliforms, Fecal (MF) by SM-9222D	6800		col/100ml	10/27/2016 15:58	AM	100
Heterotrophic Plate Count by SM-9215B	>5700		CFU/mL	10/27/2016 17:29	AM	
Coliforms, Fecal (MF) Start Time	15:58		Hours	10/27/2016 15:58	AM	
Coliforms, Fecal (MF) Stop Time	15:19		Hours	10/28/2016 15:19	AM	

Microbac Laboratories, Inc.
Analytical Data Report

Report No: E610S90
Sample No: 1
Sample Description: WPCF Effluent

Customer: NTE Connecticut, LLC
Project: Killingly WPCF

Date Collected: 10/27/2016 08:00
Date Received: 10/27/2016 08:35
Date Extracted: 10/28/2016 09:50 By: JAN
Date Analyzed: 10/28/2016 15:28 By: MRB
Preparation Method: 8100
Analytical Method: 8100

Matrix: Aqueous
Percent Moisture: N/A
Sample Weight/Volume: 1000
Dilution Factor: 1
Extract Volume: 1
Lab Data File: M102807.D
QC Batch#: 146550

CAS No.	Parameter	Result	DL	Units
	C9-C36 TPH	0.12	0.10	mg/L

Sample QC

Surrogate	Recovery	QC Limits
1-Chlorooctadecane	51%	25%-125%

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Draft Progress Report

October 31, 2016

FOR: Attn: Ms. Katherine Wall
Microbac Laboratories, Inc
61 Louisa Viens Drive
Dayville, CT 06241

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:		10/27/16	8:00
Location Code:	MICROBAC	Received by:	LB	10/28/16	8:48
Rush Request:	24 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBV68423
Phoenix ID: BV68423

Project ID: E610S90
Client ID: 1F

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromide	< 1.0	1.0	mg/L	1	10/29/16	BS/EG	E300.0/SW9056A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

PLEASE NOTE: THIS PROGRESS REPORT IS CONSIDERED PRELIMINARY DATA. THE RESULTS ENTERED HAVE NOT BEEN EXAMINED BY OUR QA/QC DEPARTMENT.

Phyllis Shiller, Laboratory Director
October 31, 2016

Sample Criteria Exceedances Report

GBV68423 - MICROBAC

Criteria: None

State: CT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

MICROBAC

Chain of Custody

526668-101

For. Phoenix Environmental
587 East Middle Turnpike
Manchester, CT 06040

Report to	Billing Information	Project Information
Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241 **Email Reports and Invoices to** **datareporting@premierlaboratory.com**	Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241	Project: E610S90 State Certification: CT DPH Project Manager: EMail. katherine.wall@microbac.com Phone: 860-774-6814 Fax: 860-774-2689 Due Date: Standard TAT

Sample Identification	Date Collected	Time Collected	Sample Type	Sample Matrix	Cont Type	Cont Qty	Preservative	Analysis
E610S90-1F	10/27/2016	8:00	G	AQ	P		None	Bromide by IC method 300.0 168423

	Custody Transfer	Date	Time
Sampler:			
Received:			
Relinquished:			
Received:	Chris Wilson	10-27-2016	16:55
Relinquished:	Chris Wilson	10-28-2016	8:46
Received:		10-28-16	8:48

Comments:
24 hour Rush!.
Notify Premier Laboratory of any MCL exceedances with 24 hours of obtaining valid data.

Conditions Upon Receipt (Check One):

☒	Cooled	☐	Ambient	< 1	°C Upon Receipt at LAB

NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number C1028-02

Prepared for:

Microbac Laboratory
61 Louisa Viens Drive
Dayville, CT 06241

Report Date: November 1, 2016

Director
New England Testing Laboratory, Inc.
Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
59 Greenhill Street, West Warwick, RI 02893
(401) 353-3420

Total # of Pages: 5

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The Samples listed in Table I were submitted to New England Testing Laboratory on October 28, 2016. The group of samples appearing in the report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. The case number for this sample submission is C1028-02.

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
E610S90-1C	10/27/2016	Water	Table II

TABLE II, Analysis and Methods

ANALYSIS	DETERMINATIVE METHOD
Fluoride	4500F C-1997
Sulfite	377.1

Methods are documented in:

Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, APHA, AWWA-WPCF

Manual of Methods for Chemical Analysis of Water and Water Wastes, EPA-600/4-29-020 (Revised 1983), USEPA/EMSL.

40 CFR 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act*, Office of Federal Register National Archives and Records Administration.

EPA-821-B-94-004

This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record.

CASE NARRATIVE

All samples were found to be properly preserved/cooled upon receipt. Procedure/calibration checks required by the designated protocols were within control limits.

The sample was received outside of the method recommended holding time for sulfite analysis.

Case No. C1028-02

E610S90-1C

Parameter	Result, mg/l	Reporting Limit	Date Analyzed
Fluoride	ND	0.3	10/31/2016
Sulfite	ND	0.64	10/28/2016 @ 12:30

ND = Not Detected

MICROBAC®

Chain of Custody

526668-120

For: New England Testing Lab
59 Greenhill Street
West Warwick, RI 02893

C1028-02

Report to	Billing Information	Project Information
Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241 **Email Reports and Invoices to datareporting@premierlaboratory.com**	Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241	Project: E610S90 State Certification: CT DPH Project Manager: EMail: katherine.wall@microbac.com Phone: 860-774-6814 Fax: 860-774-2689 Due Date: Standard TAT

Sample Identification	Date Collected	Time Collected	Sample Type	Sample Matrix	Cont. Type	Cont. Qty	Preservative	Analysis
E610S90-1C	10/27/2016	8:00	G	AQ	P		None	Fluoride by SM4500F-C
								Fluoride Distillation by SM 4500-F-B
								Sulfite by 377.1 in DW/WW

	Custody Transfer	Date	Time
Sampler:			
Received:			
Relinquished:			
Received:	Molly Ramsh	10/27/16	1630
Relinquished:	Molly Ramsh	10/28/16	1000
Received:	molly	10/28/16	1000

Comments:
7 Day Rush Please!

Notify Premier Laboratory of any MCL exceedances with 24 hours of obtaining valid data.

Conditions Upon Receipt (Check One):

☐ Cooled ☐ Ambient °C Upon Receipt at LAB

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com EnvChemistry2@emsl.com

EMSL Order:	011607234
CustomerID:	PREM50
CustomerPO:	
ProjectID:	

Attn: **Katherine Wall**
Microbac Laboratories, Inc.
61 Louisa Viens Drive
Dayville, CT 06241

Phone:	(800) 334-0103
Fax:	(860) 774-2689
Received:	10/28/16 9:30 AM

Project: **E610S90**

Analytical Results

Client Sample Description E610S90-1B ***Collected:*** 10/27/2016 ***Lab ID:*** *0001*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
200.7	Silicon	6500	100	µg/L	11/1/2016	LY	11/2/2016	BE

Definitions:
ND - indicates that the analyte was not detected at the reporting limit
RL - Reporting Limit (Analytical)

NETLLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number C1102-05

Prepared for:

Microbac Laboratory
61 Louisa Viens Drive
Dayville, CT 06241

Report Date: November 3, 2016

Director
New England Testing Laboratory, Inc.
Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
59 Greenhill Street, West Warwick, RI 02893
(401) 353-3420

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The Samples listed in Table I were submitted to New England Testing Laboratory on November 02, 2016. The group of samples appearing in the report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. The case number for this sample submission is C1102-05.

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
E610S90-1D	10/27/2016	Water	Table II

TABLE II, Analysis and Methods

ANALYSIS	DETERMINATIVE METHOD
Total Organic Carbon	5310C-2000

Methods are documented in:

Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, APHA, AWWA-WPCF

Manual of Methods for Chemical Analysis of Water and Water Wastes, EPA-600/4-29-020 (Revised 1983), USEPA/EMSL.

40 CFR 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act*, Office of Federal Register National Archives and Records Administration.

EPA-821-B-94-004

This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record.

CASE NARRATIVE

All samples were found to be properly preserved/cooled upon receipt. All analyses were performed within EPA designated holding-times. Procedure/calibration checks required by the designated protocols were within control limits.

E610S90-1D

Parameter	Result, mg/l	Reporting Limit	Date Analyzed
Total Organic Carbon	7.35	1.00	11/3/2016

ND = Not Detected

MICROBAC®

Chain of Custody

526668-120

For: New England Testing Lab
59 Greenhill Street
West Warwick, RI 02893

C1102-05

Report to	Billing Information	Project Information
Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241 **Email Reports and Invoices to datareporting@premierlaboratory.com**	Microbac Laboratory, Inc. 61 Louisa Viens Drive Dayville, CT 06241	Project: E610S90 State Certification: CT DPH Project Manager: EMail: katherine.wall@microbac.com Phone: 860-774-6814 Fax: 860-774-2689 Due Date: ~~Standard TAT~~ Rush-24 hr TAT

Sample Identification	Date Collected	Time Collected	Sample Type	Sample Matrix	Cont. Type	Cont. Qty	Preservative	Analysis
E610S90-1D	10/27/2016	8:00	G	AQ	V	1	H2SO4	Total Organic Carbon (TOC) by SM5310C

	Custody Transfer	Date	Time
Sampler:			
Received:			
Relinquished:			
Received:	Molly Rauch	11/1/16	16:15
Relinquished:	Molly Rauch	11/2/16	1000
Received:		11/2/16	1000

Comments: WW

Notify Premier Laboratory of any MCL exceedances with 24 hours of obtaining valid data.

Conditions Upon Receipt (Check One):

☐ Cooled ☐ Ambient °C Upon Receipt at LAB

MICROBAC

Microbac Laboratories, Inc.

CHAIN OF CUSTODY FORM

61 Louisa Viens Drive - Dayville, CT 06241
Tel: (860)774-6814 - Fax: (860)774-2689

FOR LAB USE ONLY
Lab WO# E610590
Project Manager KAN

Copy of Report To

CUSTOMER: NTE Connecticut, LLC
ADDRESS:
DELIVERY:
E-MAIL:
PHONE: FAX:

Billing Information

BILL TO: NTE Carolinas II, LLC
ADDRESS: 24 Cathedral Place, Suite 300
St. Augustine, FL 32084
PURCHASE ORDER #
ATTENTION: Accounting Department
PHONE: (904)687-1857

Project Information

PROJECT: Killingly Energy Center
LOCATION: Killingly, CT
ANY QUESTIONS WHEN SAMPLES ARRIVE WE SHOULD CALL
PHONE:
FAX:

Sample Identification	Date Collected	Time Collected	COMPOSITE	GRAB	Sample Matrix	Number of Bottles	Metals*	Alk, Bicarbonate, Cl, N3, N2, OP, SO4, Cond	TDS, TSS, TB, BOD, pH, Silica, MBAS	Fl, Sulfite	Fecal Coliform, HPC	Bromide	TOC	O&G	NH3, TP, TKN, COD	Sulfide	TPH	NON-PRES	HS2O4	HCL	HNO3	OTHER
WPCF Effluent	10/27/16	800	X			2	X														X	
		400	X			5		X	X	X								X				
		810		X		2					X							X				
		400	X			1						X										X
		400	X			2							X						X			
		816		X		2								X					X			
		800	X			1									X				X			
		806	X			1										X						X
		400	X			2											X		X			

PRESERVATIVE VERIFIED Initials CWF

CUSTODY TRANSFER	DATE	TIME
SAMPLER: [signature]	10/27/16	416
RECEIVED:		
RELINQUISHED: [signature]	10/27/16	835
RECEIVED:		
RELINQUISHED:		
RECEIVED: [signature]	10/27/16	0835

TURN AROUND (INDICATE IN CALENDAR DAYS):
FAX ☐ HARD COPY ☐ E-MAIL ☐

EXPIDATED SERVICE MAY BE SUBJECT TO SURCHARGE

COMMENTS: pH, Temp, Cond, Free Cl, and TRC in field

*Metals: Na, K, Ca, Mg, Ba, Sr, Al, Fe, Mn, Sb, As, Be, B, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, Sn, Ti, V, Zn, Hg, Si

CONDITIONS UPON RECEIPT (CHECK ONE): COMPLIANT ☐
COOLED ☐ AMBIENT ☐ 5.1

PREMIER LABORATORY, INC.
A MICROBAC LABORATORY

Groundwater Sampling Log

Location (Site/Facility/Project): NTE Wastewater Date: 10/27/16
Field Personnel: CE Well ID: EFF

Date: / Time:	Color	Odor	Temp.	pH	Specific Cond.	DO	ORP	Turbidity	
807									
DRY? Y / N	Clear	organic	16.02	7.4	1023	—	—	—	
Units:			°C	STD	µS/cm	mg/L	mv	NTU	

Well Inspection

Inspection	Situation	Status	Observation
Well Tag/ID	Is it in sight, on the well?	S / U	
Well Security	Condition of casing, cap, lock	S / U	
Well Pad	Type and Condition	S / U	
Area around well	Standing water? Trash? Etc...	S / U	
Dedicated Equipment	Type and Condition	S / U	
PVC Riser	Condition...	S / U	

S = Satisfactory U = Unsatisfactory circle one

Comments

TRC – ND

FC – ND

SCANNED

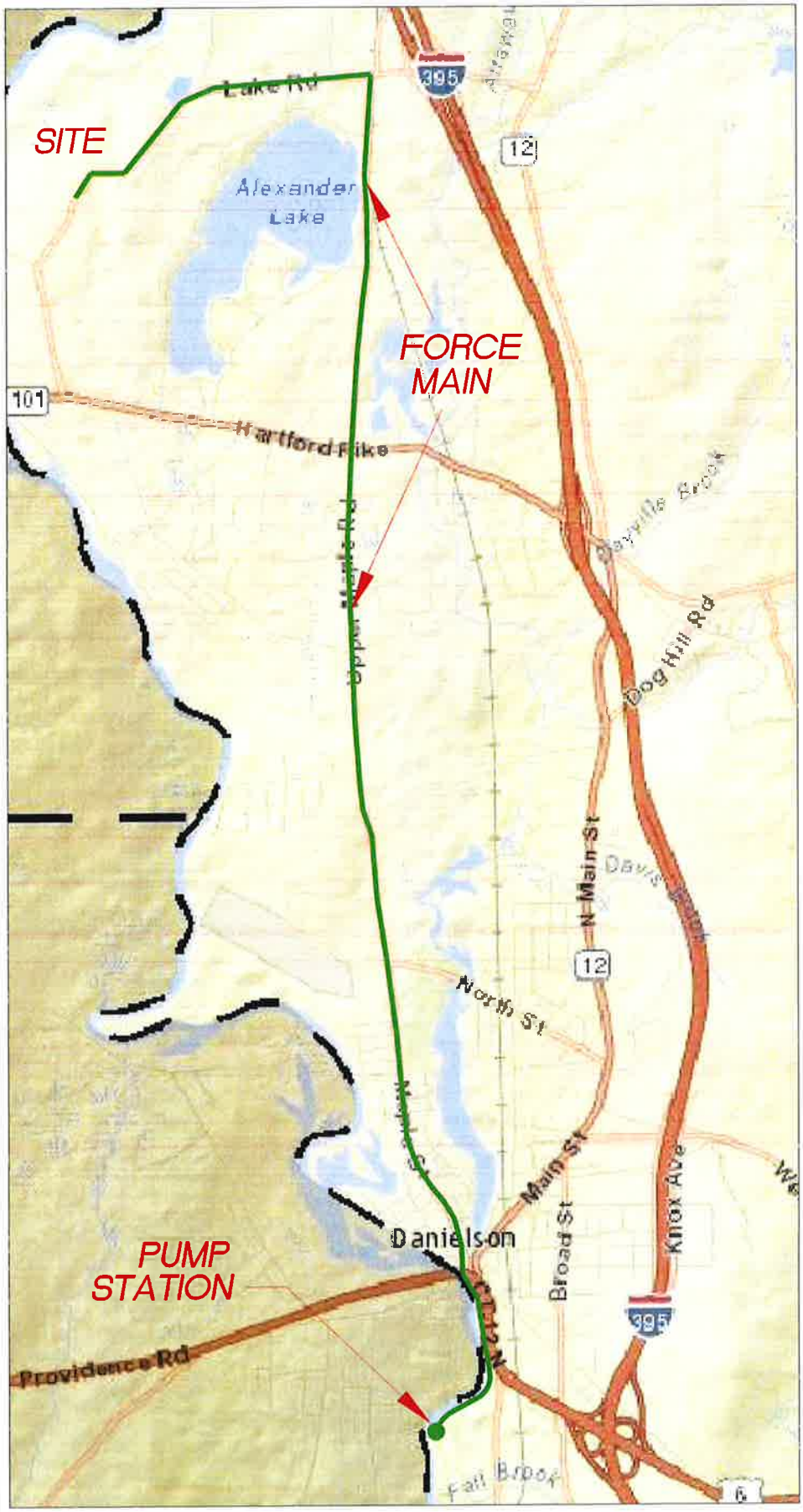
Well purged with (Bailer / Pump / Watara) Well sampled with (Bailer / Pump / Watara)

Measured		Sampled: Y / N	
Date:	Time:	Date:	Time:

Surface Volume found using PVC riser Diameter
Formula for Total Volume to be removed: (TD - DTW) * SV * 3 = TV

Total Depth (ft):	Depth To Water (ft):
Well Constant per Diameter (Single Volume) Circle One 1.25" = .077 / 2" = .162 / 4" = .650	Total Volume to be removed (gal):
Actual Volume removed (if different):	Number of Sample Bottles:

ATTACHMENT B



N

1000 500 0 1000
GRAPHIC SCALE IN FEET

FORCE MAIN LENGTH = ±35,000 L.F.

DATE	DESCRIPTION

REVISIONS

GRAYWATER ROUTING PLAN

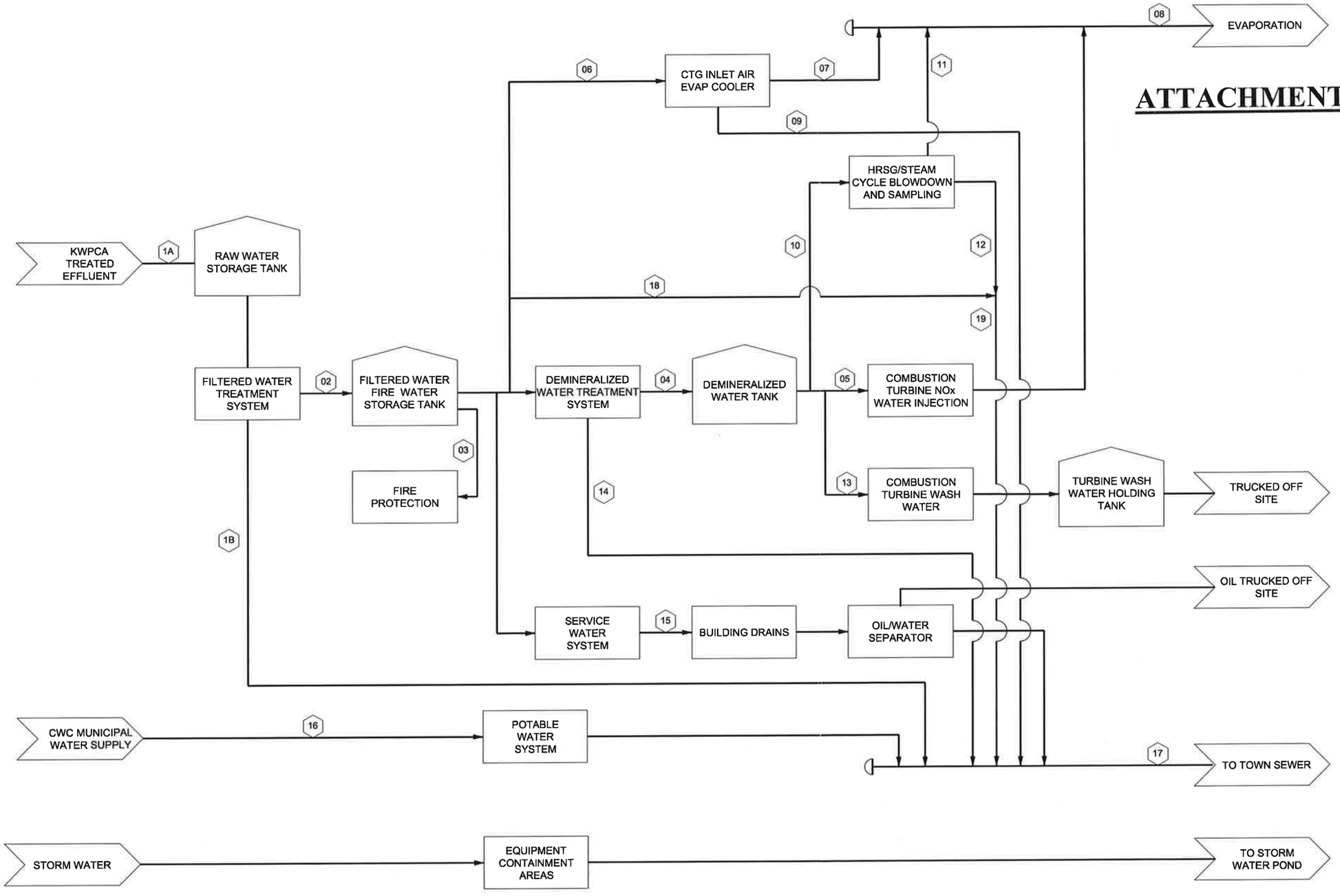
PREPARED FOR

NET CONNECTICUT

ROUTE 12 TO LAKE ROAD
KILLINGLY, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying

DATE: 05/27/2015	DRAWN: NET
SCALE: 1"=1,000'	DESIGN: NET
SHEET: 1 OF 1	CHK. BY: --
DWG. No.	JOB No. 14042



ATTACHMENT C

Notes

1. CASE 1 ASSUMES OPERATION AT WINTER AMBIENT CONDITIONS, 100% CT LOAD ON GAS, DUCT BURNER OFF, EVAP COOLER OFF.
2. CASE 2 ASSUMES OPERATION AT ANNUAL AVERAGE AMBIENT CONDITIONS, 100% CT LOAD ON GAS, DUCT BURNER OFF, EVAP COOLER OFF.
3. CASE 3 ASSUMES OPERATION AT SUMMER AMBIENT CONDITIONS, 100% CT LOAD ON GAS, DUCT BURNER ON 12 HRS/DAY, EVAP COOLER ON 12 HRS/DAY.
4. CASE 4 ASSUMES OPERATION AT WINTER AMBIENT CONDITIONS, 100% CT LOAD ON ULSD, DUCT BURNER OFF, EVAP COOLER OFF.
5. CASE 5 ASSUMES OPERATION AT SUMMER AMBIENT CONDITIONS, 100% CT LOAD ON ULSD, DUCT BURNER OFF, EVAP COOLER ON 12 HR/DAY.
6. PROCESS IS SHOWN FOR DIAGRAMMATIC PURPOSES BUT CONSUMPTION IS NEGLIGIBLE.

Legend

Reference Drawings

Rev	Date	Drawn	Description	Ch'k'd	App'd
D	11/30/16	AF	FOR CLIENT REVIEW	JW	JW
C	11/22/16	AF	FOR CLIENT REVIEW	JW	JW
B	08/15/16	AF	FOR CLIENT REVIEW	JW	JW
A	08/15/16	AF	FOR CLIENT REVIEW	JW	JW

Mott MacDonald
One University Avenue
Suite 100, North Lobby
Westwood, MA 02090
United States
T +1 (781) 915-0015
F +1 (781) 915-0001
W www.mottmac.com

Client: NTE ENERGY

KILLINGLY ENERGY CENTER
NTE CONNECTICUT, LLC

Title: WATER BALANCE DIAGRAM

PRELIMINARY
NOT FOR CONSTRUCTION
REPLACE WITH ENGINEERS STAMP AT CONSTRUCTION AND/OR FABRICATION

Designed	-	Eng check	-
Drawn	-	Approved	-
Dwg check	-	Project Mngr	-
Scale at ANSI D SCALE		Date 08/05/16	Rev D

Drawing Number: 334954CT-WBD-101 01

SUMMARY FLOW TABLE (kgpd)						
NODE #	DESCRIPTION	CASE1[1]	CASE2[2]	CASE3[3]	CASE4[4]	CASE5[5]
1a	KWPCA Treated Effluent	71.0	67.7	131.3	416.3	457.3
1b	Filtered Water Treatment Waste	7.1	6.8	13.1	41.6	45.8
2	Filtered Water to Storage Tank	63.9	60.9	118.2	374.7	411.6
3	Fire Protection	Note 6	Note 6	Note 6	Note 6	Note 6
4	Demineralized Water Treatment Product	29.2	27.8	34.7	260.7	257.8
5	CTG Water Injection	0.0	0.0	0.0	231.5	231.5
6	Make-up to CTG Inlet Air Coolers	0.0	0.0	42.8	0.0	42.8
7	CTG Inlet Air Cooler Evaporation	0.0	0.0	14.3	0.0	14.3
8	Total Evaporation	11.6	11.0	28.1	243.1	256.2
9	CTG Inlet Air Cooler Blowdown	0.0	0.0	28.5	0.0	28.5
10	Make-up to Steam Cycle	29.2	27.8	34.7	29.2	26.2
11	Steam Cycle Vent	11.6	11.0	13.8	11.6	10.4
12	Steam Cycle Blowdown	17.6	16.7	20.9	17.6	15.8
13	Combustion Turbine Wash Water	Note 6	Note 6	Note 6	Note 6	Note 6
14	Demineralized Water Treatment Waste	10.8	10.2	12.8	90.1	89.1
15	Equipment Washdown	2.9	2.9	2.9	2.9	2.9
16	Potable Water Supply	2.9	2.9	2.9	2.9	2.9
17	Discharge to Town Sewer (Total)	62.2	59.5	106.2	176.2	204.1
18	Quench Water	21.0	20.0	25.1	21.0	19.0
19	Quench and Blowdown	38.6	36.7	45.9	38.6	34.8

Notes

1. CASE 1 ASSUMES OPERATION AT WINTER AMBIENT CONDITIONS, 100% CT LOAD ON GAS, DUCT BURNER OFF, EVAP COOLER OFF.
2. CASE 2 ASSUMES OPERATION AT ANNUAL AVERAGE AMBIENT CONDITIONS, 100% CT LOAD ON GAS, DUCT BURNER OFF, EVAP COOLER OFF.
3. CASE 3 ASSUMES OPERATION AT SUMMER AMBIENT CONDITIONS, 100% CT LOAD ON GAS, DUCT BURNER ON 12 HRS/DAY, EVAP COOLER ON 12 HRS/DAY.
4. CASE 4 ASSUMES OPERATION AT WINTER AMBIENT CONDITIONS, 100% CT LOAD ON ULSD, DUCT BURNER OFF, EVAP COOLER OFF.
5. CASE 5 ASSUMES OPERATION AT SUMMER AMBIENT CONDITIONS, 100% CT LOAD ON ULSD, DUCT BURNER OFF, EVAP COOLER ON 12 HR/DAY.
6. PROCESS IS SHOWN FOR DIAGRAMMATIC PURPOSES BUT CONSUMPTION IS NEGLIGIBLE.

Legend

Reference Drawings

Rev	Date	Drawn	Description	Ch'k'd	App'd
D	11/30/16	AF	FOR CLIENT REVIEW	JW	JW
C	11/22/16	AF	FOR CLIENT REVIEW	JW	JW
B	08/15/16	AF	FOR CLIENT REVIEW	JW	JW
A	08/15/16	AF	FOR CLIENT REVIEW	JW	JW

Mott MacDonald
One University Avenue
Suite 100, North Lobby
Westwood, MA 02090
United States
T +1 (781) 915-0015
F +1 (781) 915-0001
W www.mottmac.com

Client

NTE ENERGY

KILLINGLY ENERGY CENTER
NTE CONNECTICUT, LLC

Title

WATER BALANCE DIAGRAM

PRELIMINARY
NOT FOR CONSTRUCTION
REPLACE WITH ENGINEERS STAMP AT CONSTRUCTION AND/OR FABRICATION

Designed	-	Eng check	-
Drawn	-	Approved	-
Dwg check	-	Project Mngr	-
Scale at ANSI D SCALE		Date 08/05/16	Rev D

Drawing Number
334954CT-WBD-101 02