UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

CERTIFIED MAILMAI L RETURN RECEIPT REQUESTED

APR 1 6 2015

Robert Chapman
Owner
Groveton Wastewater Lagoons
PO Box 64
Milan, NH 03588

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000. Groveton Wastewater Lagoons site located at 10 Mechanic Street, Groveton, New Hampshire, Coos County; Authorization # NHG910068

Dear Mr. Chapman:

Based on the review of a Notice of Intent (NOI) submitted by Sylvia Clark from Stonecipher & Clark Environmental Solutions, LLC, on your behalf for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Owner to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants which you are required to monitor. Also indicated on the checklist are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the checklist does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at: http://www.epa.gov/region1/npdes/mass.html#dgp.

Please note the enclosed checklist includes the parameters which your consultant has marked "Believed Present".

The checklist also includes parameters your consultant has marked "Believed Absent" and did not submitted a justification (laboratory reports) to indicate their presence or absence in the intake water, as required by the RGP regulations.

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on selected dilution ranges and technology-

based ceiling limitations. For each parameter the dilution factor 67.9 for this site is within a dilution range greater than fifty to one hundred (>50-100), established in the RGP. (See the RGP Appendix IV for Hew Hampshire facilities). Therefore, the limits for antimony of 141 ug/L, arsenic of 500 ug/L, cadmium of 16 ug/L, trivalent chromium of 1,385 ug/L, hexavalent chromium of 570 ug/L, copper of 142 ug/L, nickel of 807 ug/L, zinc of 1,480 ug/L and iron of 5,000 ug/L, are required to achieve permit compliance at your site.

Finally, please note the checklist of pollutants attached to this authorization is subject to a recertification if the operations at the site result in a discharge lasting longer than six months. A recertification can be submitted to EPA within six (6) to twelve (12) months of operations in accordance with the 2010 RGP regulations.

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on December 1, 2015. Please note you may be required to reapply for a new authorization should the clean- up completion lasts longer than the projected termination date. Also, regardless of the termination date you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,

Thelma Murphy

Thelma Murphy, Chief
Storm Water and Construction
Permits Section

Enclosure

cc: Jeffrey Andrews, NHDES
Sylvia Clark, S&C.

2010 Remediation General Permit
Summary of Monitoring Parameters[1]

NPDES Authorization Number:	**NHG910068**
Authorization Issued:	April, 2015
Facility/Site Name:	Groveton Wastewater Lagoons
Facility/Site Address:	10 Mechanic Street, Groveton, NH 03582, Coos County
	Email address of owner: chapmanscrap@yahoo.com
Legal Name of Operator:	Mikel Douglas Stirling Jr.
Operator contact name, title, and Address:	Mike Sterling, General Manager, Ph:602/5248312 180 Lancaster Street, Gorham, NH 03581
	Email:mdstirling@gmail.com
Estimated date of The Project Completion:	December 1, 2015
Category and Sub-Category:	Category. Subcategory Category III. Contaminated Construction Dewatering. Sub-category B. Known Contaminated Sites.
RGP Termination Date:	September 2015
Receiving Water:	
	Connecticut River.

Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples

	Parameter	**Effluent Limit/Method#/ML** (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
√	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing ** Me#160.2/ML5ug/L
	2. Total Residual Chlorine (TRC) [1]	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
	4. Cyanide (CN) [2, 3]	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) [4]	100 ug/L/ Me#8260C/ ML 2ug/L
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l/Me#8260C/ML 10ug/L
	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	13. tert-Amyl Methyl Ether (TAME)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	14. Naphthalene [5]	20 ug/L /Me#8260C/ML 2ug/L
	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/L /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/L /Me#8260C/ ML 5ug/L
	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML 5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML 5ug/L,Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) [6]	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L& Me#625/ML 5ug/L

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/L /Me#8270D/ML 5ug/L,Me#606/ML 10ug/L & Me#625/ML 5ug/L
√	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
√	a. Benzo(a) Anthracene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	b. Benzo(a) Pyrene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	c. Benzo(b)Fluoranthene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	d. Benzo(k)Fluoranthene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	e. Chrysene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	f. Dibenzo(a,h)anthracene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	g. Indeno(1,2,3-cd) Pyrene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
	h. Acenaphthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	i. Acenaphthylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	j. Anthracene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	l. Fluoranthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	m. Fluorene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	n. Naphthalene [5]	20 ug/l / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	o. Phenanthrene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	p. Pyrene	X/Me#8270D/ML5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) [8, 9]	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
√	38. Chloride	Monitor only/Me# 300.0/ ML 100 ug/L

	Metal parameter	Total Recoverable NH/Metal Limit H [10] = 25 mg/l CaCO3, Units = ug/l (11/12)		Minimum level=ML	
		Freshwater Limits	2206 dilution		
√	39. Antimony	141		ML	10
√	40. Arsenic **	500		ML	20
√	41. Cadmium **	16		ML	10
√	42. Chromium III (trivalent) **	1,385		ML	15
√	43. Chromium VI (hexavalent) **	570		ML	10
√	44. Copper **	142		ML	15
	45. Lead **	0.5		ML	20
	46. Mercury **	0.9		ML	02
√	47. Nickel **	807		ML	20
	48. Selenium **	5		ML	20
	49. Silver	0.4		ML	10
√	50. Zinc **	1,480		ML	15
√	51. Iron	5,000		ML	20

	Other Parameters	Limit
√	52. Instantaneous Flow	Site specific in CFS
√	53. Total Flow	Site specific in CFS
√	54. pH Range for Class B Waters in NH	6.5-8.3; 1/Month/Grab[13]
	55. pH Range for Class SB Waters in NH	6.5-8; 1/Month/Grab[13]
	56.	
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab[14]
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab[14]
	59.	
	60. Maximum Change in Temperature in NH- Any Class B water body- Warm Water	5°F; 1/Month/Grab[14]
	61. Maximum Change in Temperature in NH– Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab[14]

Footnotes:

[1] Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).
[2] Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.

[3] Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).
[4] BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.
[5] Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.
[6] The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[7] Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
[8] In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[9]Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).
[10] Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.
[11] For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using DF x 1,000ug/L (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =1,000 x 2 =2,000 ug/L., etc. not to exceed the DF=5.
[12] Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).
[13] pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.
[14] Temperature sampling per Method 170.1

STONECIPHER & CLARK ENVIRONMENTAL SOLUTIONS, LLC
111 Saranac Street, Studio 8, Littleton, NH 03561 603.575.5154 www.stonecipherandclark.com

January 31, 2015

United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912
Attn: Remediation General Permit NOI Processing

Subject: Notice of Intent for Remediation General Permit, Groveton Wastewater Lagoons, 10 Mechanic Street, Groveton New Hampshire

Mr. Alvarez:

Stonecipher & Clark Environmental Solutions, LLC (S&C) is submitting the attached Remediation General Permit Notice of Intent for the above-referenced location (the "Site") on behalf of Mr. Bob Chapman. Please find the NOI form under Attachment A. The Site is the former Wausau Paper Mill and is located on two parcels located in Groveton, NH along the Upper Ammonoosuc River. Please refer to the enclosed locus map (Figure 1). The Site consists of three clarifiers on the 9.5 acre parcel located adjacent to the Upper Ammonoosuc River, and the wastewater lagoon/polishing ponds are located on the 53 acre parcel also adjacent to the Ammonoosuc River.

General Site Information

All processes pertaining to the paper mill have ceased and reportedly the lagoons were discharged and cleaned in 2008 under an individual NPDES permit (Permit No. NH0001562). This permit expired in 2011. The lagoons have reportedly received no additional wastewater since then. Water currently in the open-topped lagoon area and clarifiers is a result of stormwater collection (supernatant) over the past few years. The RGP is being sought in order to discharge the remaining supernatant water as part of a final dewatering in order to install drain-holes and maintain the lagoons in an empty state, as well as eventual demolition of the clarifiers.

Discharge Information

The expired NPDES Individual Permit allowed discharge via Outfall 017 which discharges approximately 0.5 miles west into the Connecticut River. Please see Attachment A for a aerial view of the Site, including the approximate outfall location.This RGP application seeks to maintain the the Outfall 017 discharge point.

In December 2013, John King of EPA approved the "Wastewater Facility Decommissioning, Groveton Mill, Groveton, New Hampshire" report prepared and submitted by Horizons Engineering, Inc. Please find this report under Attachment B. This report outlined the results of the sampling plan completed in October 2013 which included samples from 9 locations: the four quadrants of the main lagoon, the two polishing ponds (lagoons), and the three clarifiers. Three samples were taken at each of the nine sampling locations; one grab sample from mid-depth between the supernatant/sludge interface and the surface, one grab sample from the supernatant interface, and one "sludge" sample from the bottom. The laboratory results are included in the decommissioning plan report and indicate that detected parameter concentrations in the samples obtained from mid-depth between the supernatant interface and the water surface were all within the former NPDES permit standards, with the exception of the sample from Clarifier 1, for which we are NOT seeking coverage under the RGP NOI.

The recommendation of the approved decommissioning report was to pump each lagoon and clarifier down to the supernatant interface individually into Outfall 017 (which discharges directly to the Connecticut River). Pumping rates were specified in the report based on BOD and TSS, and turbidity monitoring was recommended in order to determine when interface was reached.

In November 2014, S&C oversaw discharge of the supernatant from the lagoon area as specified in the approved decommissioning report. The pumping rate was greatly reduced from the allowable rate in the plan due to availability of pumping equipment as well as field conditions. Turbidity was closely monitored. Field observations indicated that the line between the supernatant and the "interface" was quite sharply defined. Close monitoring allowed S&C to be confident in the discharge of only supernatant.

Contaminant Information

For the purposes of this permit application it is assumed that the Site falls under Category III, subcategory B. Upon reviewing Appendix III regarding *Effluent Limits and Monitoring Requirements*, it appears that the supernatant laboratory results for all sampled locations with the exception of Clarifier 1 average 19 mg/l TSS, which is well below the specified TSS effluent limit of 30 mg/l TSS (monthly average). Laboratory results from supernatant collected from Clarifier 3 yielded a TSS value of 45 mg/l. Please note that using this TSS value as a maximum daily TSS value in the NOI application under Appendix III will therefore skew the actual amount of daily TSS, as the dewatering of Clarifier 3 is anticipated at a lesser rate than the 1,000 gpm maximum. In addition, the volume of water in Clarifier 3 (reportedly 9 feet) will be discharged prior to achieving a 24-hr time period.

Group I PAHs and Group II PAHs fall below the respective 10.0 ug/l and 100.0 ug/l daily limits.

S&C collected and submitted to the laboratory a confirmatory sample of the lagoon supernatant on December 3, 2014. This sample was tested for Volatile Organic Compounds (VOCs), Group I PAHs, Group II PAHs, and all required metals to be tested under Appendix III, Category III, subcategory B with the exception of antimony, copper, nickel, zinc, and iron.

Once the supernatant/sludge interface has been reached, the plan is to dewater the remaining water overland via NHDES Temporary Groundwater Discharge Permit. This will NOT be released to any surface waters.

Treatment System Information

No treatment is proposed during dewatering. The pumping discharge rate is proposed to be a maximum of 1,000 gpm.

Receiving Surface Water(s) Information

Discharge will occur approximately 0.5 miles away to Outfall 017 via underground 32" pipe into the Connecticut River.

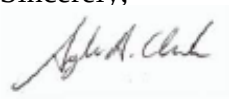
Endangered Species Act & National Historic Preservation Act Reviews

S&C has received verbal response from United States Fish and Wildlife Service that the discharge activities are "unlikely to adversely affect" listed species or critical habitat. When official sign-off is received, S&C will forward that response.

Under Attachment D, please find the correspondence with New Hampshire Division of Historical Resources indicating that findings for this project considered "No Historic Properties Affected".

Please contact the undersigned if you have any questions or require additional information.

Sincerely,



Sylvia A. Clark
Co-Owner/Project Manager
Stonecipher & Clark Environmental Solutions, LLC
Office: 603.575.5154
Cell: 802.734.1403
sclark@stonecipherandclark.com

Attachments:
Figure 1 – Site Aerial Map
Figure 2 – Treatment System Flow Diagram
Attachment A – Notice of Intent Form
Attachment B – EPA Approved Decommissioning Plan
Attachment C – December 3, 2014 Laboratory Results
Attachment D – NH DHR Correspondence
Attachment E - US FWS Correspondence (To be forwarded)

cc: Jeff Andrews, NHDES

Figure 1

Stonecipher& Clark Environmental Solutions, LLC
111 Saranac Street, Studio 8
Littleton, New Hampshire 03561

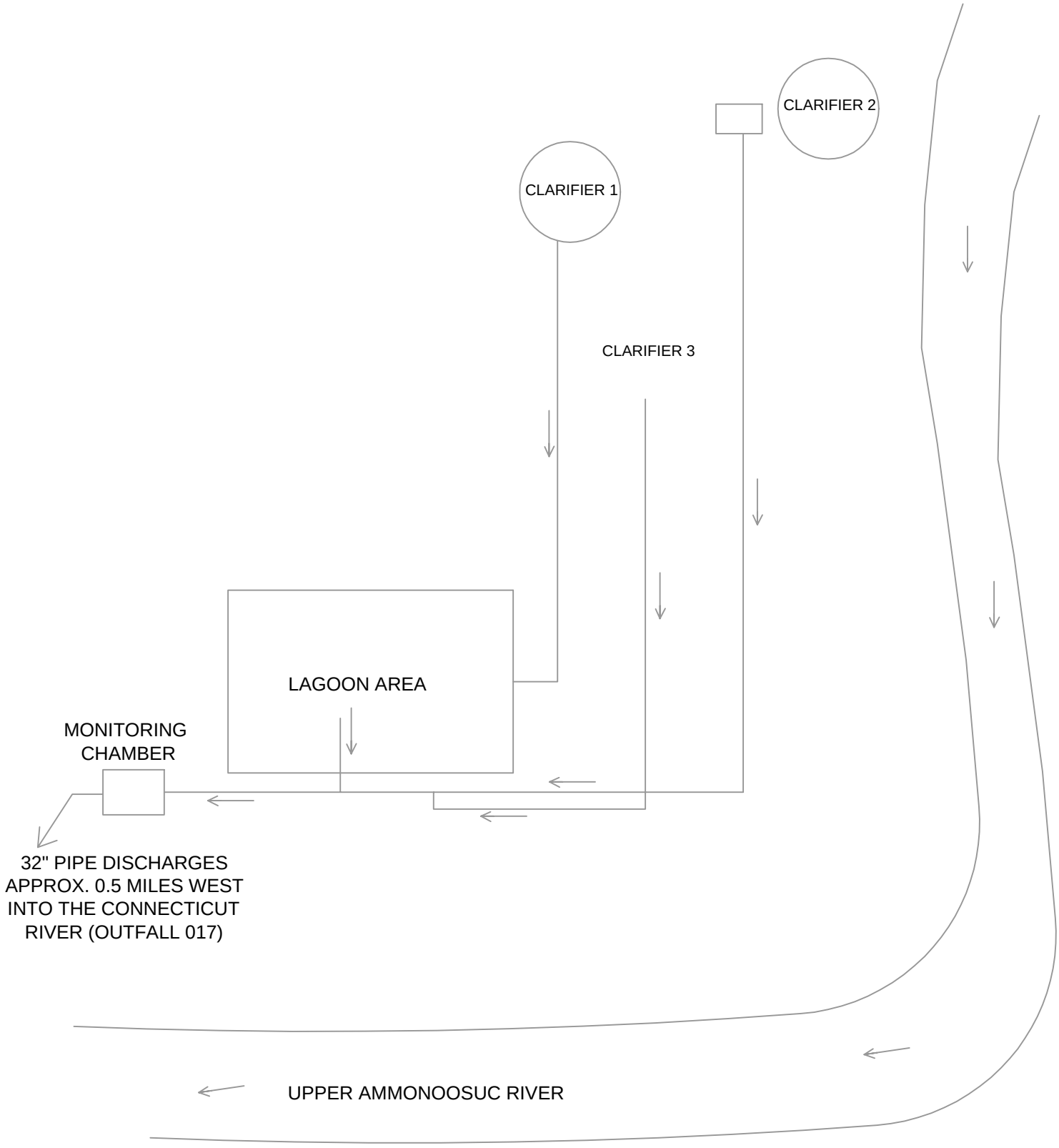
603.575.5154

Groveton Wastewater Lagoons & Clarifiers
Groveton, NH

S&C Project: 2014-062

Aerial Map

Figure 2



STONECIPHER & CLARK ENVIRONMENTAL SOLUTIONS, LLC
111 SARANAC STREET, STUDIO 8
LITTLETON, NEW HAMPSHIRE 03561
603.575.5154

GROVETON WASTEWATER LAGOONS
GROVETON, NEW HAMPSHIRE
FLOW SCHEMATIC

Attachment A

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General facility/site information. Please provide the following information about the site:

a) Name of **facility/site**: Groveton Wastewater Lagoons		**Facility/site** mailing address:		
Location of **facility/site**: longitude: 71 deg 31' 19" W latitude: 44 deg 35' 31" N	Facility SIC code(s): 2621 Paper Mill	Street: PO Box 64		
b) Name of **facility/site owner:**		Town: Milan		
Email address of facility/site owner: Owner: Bob Chapman; email: chapmanscrap@yahoo.com		State: NH	Zip: 03588	County: USA
Telephone no. of facility/site **owner**: 603-466-9966				
Fax no. of facility/site **owner**: 603-466-9960		**Owner** is (check one): 1. Federal__○__ 2. State/Tribal__○__ 3. Private ⊙ 4. Other __○__ if so, describe:		
Address of **owner** (if different from site):				
Street:				
Town:	State:	Zip:	County:	
c) Legal name of **operator**:	**Operator** telephone no: 602-524-8312			
Michael Douglas Stirling Jr.	**Operator** fax no.: 603-466-9960	**Operator** email: mdstirling@gmail.com		
Operator contact name and title: Mike Stirling, General Manager				
Address of **operator** (if different from owner):	Street: 180 Lancaster Street			
Town: Gorham	State: NH	Zip: 03581	County: USA	

d) Check Y for "yes" or N for "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Y___ N___, if Y, number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge?
Y___ N___, if Y, date and tracking #: The Site formerly held individual NPDES Permit No. NH0001562, issued September 2006 and expired May 2011.
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y___ N___
4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y___ N___

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y___ N___
If Y, please list:
1. site identification # assigned by the state of NH or MA:
2. permit or license # assigned:
3. state agency contact information: name, location, and telephone number:

f) Is the site/facility covered by any other EPA permit, including:
1. Multi-Sector General Permit? Y___ N___,
if Y, number:
2. Final Dewatering General Permit? Y___ N___,
if Y, number:
3. EPA Construction General Permit? Y___ N___,
if Y, number:
4. Individual NPDES permit? Y___ N___,
if Y, number: Permit expired in 2011.
5. any other water quality related individual or general permit? Y___ N___, if Y, number:

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y___ N___

h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.

Activity Category	**Activity Sub-Category**
I - Petroleum Related Site Remediation	A. Gasoline Only Sites ___ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ___ C. Petroleum Sites with Additional Contamination ___
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites ___ B. VOC Sites with Additional Contamination ___ C. Primarily Heavy Metal Sites ___
III - Contaminated Construction Dewatering	A. General Urban Fill Sites ___ B. Known Contaminated Sites ___

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ☐ B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites ☐ C. Hydrostatic Testing of Pipelines and Tanks ☐ D. Long-Term Remediation of Contaminated Sumps and Dikes ☐ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ☒

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

a) Describe the discharge activities for which the owner/applicant is seeking coverage:

The lagoon & clarifiers have remained dormant for several years and as a result have only accepted stormwater. Reportedly, the lagoon was cleaned in 2008. Owner is seeking permit in order to dewater the lagoon & clarifier supernatant/stormwater.

b) Provide the following information about each discharge:

1) Number of discharge points: 1	2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)? Max. flow 2.9 Is maximum flow a **design value**? Y ○ N ⊙ Average flow (include units) 2.2 Is average flow a design value or estimate? estimate

3) Latitude and longitude of each discharge within 100 feet:

pt.1: lat 44 deg 35' 31" N long 71 deg 31' 20" W pt.2: lat. long. ;
pt.3: lat long pt.4: lat. long. ;
pt.5: lat long pt.6: lat. long. ;
pt.7: lat long pt.8: lat. long. ; etc.

4) If hydrostatic testing, total volume of the discharge (gals): N/A	5) Is the discharge intermittent ⊙ or seasonal ○ ? Is discharge ongoing? Y ○ N ⊙

c) Expected dates of discharge (mm/dd/yy): start 3/1/2015 end 12/1/2015

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s). Please see attached.

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids (TSS)		☐	☒	8	GRAB	2540D-97	5 mg/l	45,000	245	19,000	103
2. Total Residual Chlorine (TRC)		☒	☐								
3. Total Petroleum Hydrocarbons (TPH)		☒	☐								
4. Cyanide (CN)	57125	☒	☐								
5. Benzene (B)	71432	☒	☐								
6. Toluene (T)	108883	☒	☐								
7. Ethylbenzene (E)	100414	☒	☐								
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☒	☐								
9. Total BTEX [2]	n/a	☒	☐								
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☒	☐								
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐								
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐								

***** Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

[2] BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

[3] EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
13. tert-Amyl Methyl Ether (TAME)	9940508	☒	☐								
14. Naphthalene	91203	☒	☐								
15. Carbon Tetrachloride	56235	☒	☐								
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐								
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐								
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐								
18a. Total dichlorobenzene		☒	☐								
19. 1,1 Dichloroethane (DCA)	75343	☒	☐								
20. 1,2 Dichloroethane (DCA)	107062	☒	☐								
21. 1,1 Dichloroethene (DCE)	75354	☒	☐								
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐								
23. Methylene Chloride	75092	☒	☐								
24. Tetrachloroethene (PCE)	127184	☒	☐								
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐								
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐								
27. Trichloroethene (TCE)	79016	☒	☐								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
28. Vinyl Chloride (Chloroethene)	75014	☒	☐								
29. Acetone	67641	☒	☐								
30. 1,4 Dioxane	123911	☒	☐								
31. Total Phenols	108952	☒	☐								
32. Pentachlorophenol (PCP)	87865	☒	☐								
33. Total Phthalates (Phthalate esters) [4]		☒	☐								
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐								
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☐	☒	2	GRAB	8270D	0.1	0.23	0.0014	0.22	0.0011
a. Benzo(a) Anthracene	56553	☐	☒	1	GRAB	8270D	0.1	0.10	0.0005	0.10	0.0005
b. Benzo(a) Pyrene	50328	☒	☐								
c. Benzo(b)Fluoranthene	205992	☒	☐								
d. Benzo(k)Fluoranthene	207089	☒	☐								
e. Chrysene	21801	☐	☒	2	GRAB	8270D	0.1	0.13	0.0009	0.12	0.0006
f. Dibenzo(a,h)anthracene	53703	☒	☐								
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐								
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☐	☒	3	GRAB	8270D	0.1	0.64	0.004	0.51	0.003

[4] The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
h. Acenaphthene	83329	☒	☐								
i. Acenaphthylene	208968	☒	☐								
j. Anthracene	120127	☒	☐								
k. Benzo(ghi) Perylene	191242	☒	☐								
l. Fluoranthene	206440	☐	☒	3	GRAB	8270D	0.1	0.34	0.002	0.24	0.0014
m. Fluorene	86737	☒	☐								
n. Naphthalene	91203	☒	☐								
o. Phenanthrene	85018	☒	☐								
p. Pyrene	129000	☐	☒	2	GRAB	8270D	0.1	0.30	0.002	0.27	0.0014
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐								
38. Chloride	16887006	☒	☐								
39. Antimony	7440360	☒	☐								
40. Arsenic	7440382	☒	☐								
41. Cadmium	7440439	☒	☐								
42. Chromium III (trivalent)	16065831	☒	☐								
43. Chromium VI (hexavalent)	18540299	☒	☐								
44. Copper	7440508	☒	☐								
45. Lead	7439921	☒	☐								
46. Mercury	7439976	☒	☐								
47. Nickel	7440020	☒	☐								
48. Selenium	7782492	☒	☐								
49. Silver	7440224	☒	☐								
50. Zinc	7440666	☒	☐								
51. Iron	7439896	☒	☐								
Other (describe):		☐	☐								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
		☐	☐								
		☐	☐								

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

Step 1: Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y____ N____	If yes, which metals?
Step 2: For any metals which exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metal:_____ DF:_____ Metal:_____ DF:_____ Metal:_____ DF:_____ Metal:_____ DF:_____ Etc.	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y____ N____ If Y, list which metals:

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

As the lagoons and clarifiers have only accepted stormwater in recent years, treatment occurs only in the form of settling. All other processes at the plant are discontinued.

b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☐	Air stripper ☐	Oil/water separator ☐	Equalization tanks ☐	Bag filter ☐	GAC filter ☐
	Chlorination ☐	De-chlorination ☐	Other (please describe):			

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate**(s) (gallons per minute) of the treatment system:
Average flow rate of discharge N/A gpm Maximum flow rate of treatment system N/A gpm
Design flow rate of treatment system N/A gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

N/A

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct to receiving water ☒	Within facility (sewer) ☐	Storm drain ☐	Wetlands ☐	Other (describe):

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
32" Effluent Pipe that discharges approx. 0.5 mile westerly into the Connecticut River.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:
1. For multiple discharges, number the discharges sequentially.
2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water
The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water Class B

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 216 cfs
Please attach any calculation sheets used to support stream flow and dilution calculations.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ◉ N ○ If yes, for which pollutant(s)? pH and E. Coli
Is there a final TMDL? Y ○ N ◉ If yes, for which pollutant(s)?

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A ___ B ___ C ___ D ___ E ___ F ___

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y___ N___ Underway___

c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y___ N___

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

1 ___ 2 ___ 3 ___

f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

7. 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.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, 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/Site Name:	Groveton Wastewater Lagoons
Operator signature:	Robert Chapman SR
Printed Name &Title:	Robert Chapman, Owner
Date:	January 31, 2015

Attachment B – Decommissioning Plan

34 SCHOOL STREET • LITTLETON, NH 03561 • PHONE 603-444-4111 • FAX 603-444-1343 • www.horizonsengineering.com

Project No. 13087
November 26, 2013

Mr. Jeffery G. Andrews, P.E.
Wastewater Engineering Bureau
New Hampshire Department of Environmental Services
29 Hazen Drive, P.O. Box 95
Concord, NH 03302-0095

Subject: Wastewater Facility Decommissioning, Groveton Mill, Groveton, New Hampshire

Dear Mr. Andrews:

At the request of Green Steel ("Client") Horizons Engineering Inc. ("Horizons") has completed a proposed sampling plan to characterize the wastewater lagoon, polishing ponds, and clarifiers. The treatment facility in question is located in Groveton, NH ("Site").

Horizons representative, Michael Czok, was onsite on October 22nd to obtain water samples from the four (4) quadrants of the main lagoon, two (2) polishing ponds, and three (3) clarifiers. Samples from the clarifier and polishing lagoons were obtained from catwalks which extended into the sampling area. The four (4) quadrants of the lagoons were sampled via boat. Two sampling depths were collected per sampling location. These depths consisted of a grab sample from mid-depth between the supernatant interface and the surface. The second consisted of a grab sample from the supernatant interface. A sludge sample was also obtained from each sampling area for analysis. Total depth of water was recorded, as well as sludge depth for each sampling area. These are summarized in attached **Table 1**.

Grab samples of water and sludge were obtained and placed on ice and transported to Eastern Analytical Inc. under proper chain of custody documentation. Water samples were analyzed for; total phosphorus, pH, e. Coli, polycyclic aromatic hydrocarbons (PAHs), total nitrogen, nitrate, nitrite, total kjeldahl nitrogen (TKN), aluminum, biochemical oxygen demand (BOD), total suspended solids (TSS), and turbidity. Sludge samples were analyzed for total metals and volatile organic compounds (VOCs). **Laboratory Analytical results** are attached in accordance with the EPA preapproved sampling plan.

Results:

Analytical results returned indicated that detected concentrations in the wastewater for the parameters outlined in the NPDES permit # NH0001562 were within the permit standards for

samples obtained from mid-depth between the supernatant interface and the water surface, except in clarifier 1.

Samples obtained from the supernatant interface had detected concentrations of aluminum above the Secondary Maximum Contaminant Level standard (SMCLs) of 0.2 mg/l. Samples ranged in detected concentration of 0.08 to 40 mg/l. Detected concentrations of multiple PAHs were found in the supernatant interface samples. The detected concentrations for each PAH violation are summarized in the **Sample Results Tables** attached.

Sludge samples taken from each of the nine (9) sampling areas had detected concentrations of metals below the NHDES soil quality standards. No VOCs were detected in any of the samples obtained from the Site.

Results are listed below and correspond to the two depths where water samples were obtained f. They are listed from mid-depth to the interface respectively.

<u>Polishing Pond 1 (Polish 1-1 - mid-depth and Polish 1-2 - interface):</u>

- Total Phosphorous - 0.32 and 3.7 mg/l
- pH - 6.6 and 6.5 SU
- E. Coli - 70.3 and 114.5 MPN/100ml
- PAHs - Detected in Polish 1-2, see attached **Sample Results Tables**.
- Total Nitrogen - 3.7 and 14 mg/l
- Nitrate - <0.5 and <0.5 mg/l
- Nitrite - <0.5 and <0.5 mg/l
- TKN - 3.7 and 14 mg/l
- Aluminum - 0.5 and 15 mg/l
- BOD - 11 and 31 mg/l
- TSS - 18 and 240 mg/l
- Turbidity - 12 and 130 NTU

<u>Polishing Pond 2 (Polish 2-1 -mid-depth and Polish 2-2 - interface):</u>

- Total Phosphorous - 0.53 and 8.1 mg/l
- pH - 6.4 and 6.4 SU
- E. Coli - 6.3 and 16 MPN/100ml
- PAHs - Detected in Polish 2-2, see attached **Sample Results Tables**.
- Total Nitrogen - 5.6 and 28 mg/l
- Nitrate - <0.5 and <0.5 mg/l
- Nitrite - <0.5 and <0.5 mg/l
- TKN - 5.6 and 28 mg/l
- Aluminum - 0.08 and 35 mg/l
- BOD - 15 and 22 mg/l
- TSS - 35 and 300 mg/l
- Turbidity - 17 and 150 NTU

Quad 1 (Quad 1-1 - mid-depth and Quad 1-2 - inteface):

- Total Phosphorous - 1.8 and 5.3 mg/l
- pH - 7.3 and 7.0 SU
- E. Coli - 3.1 and 3.1 MPN/100ml
- PAHs - AGQS violations were detected in Quad 1-2, see attached **Sample Results Tables**.
- Total Nitrogen - 9.3 and 14 mg/l
- Nitrate - <0.5 and <0.5 mg/l
- Nitrite - <0.5 and <0.5 mg/l
- TKN - 9.3and 14 mg/l
- Aluminum - <0.05 and 38 mg/l
- BOD - 12 and <30 mg/l
- TSS - 15 and 370 mg/l
- Turbidity - 7 and 150 NTU

Quad 2 (Quad 2-1-mid-depth and Quad 2-2-interface):

- Total Phosphorous - 1.8 and 4.9 mg/l
- pH - 7.2 and 7.1 SU
- E. Coli - 4.1 and <1 MPN/100ml
- PAHs - Detected in Quad 2-2, see attached **Sample Results Tables**.
- Total Nitrogen - 9.3 and 17 mg/l
- Nitrate - <0.5 and <0.5 mg/l
- Nitrite - <0.5 and <0.5 mg/l
- TKN - 9.3 and 17 mg/l
- Aluminum - <0.05 and 4.2 mg/l
- BOD - 17 and 69 mg/l
- TSS - 16 and 480 mg/l
- Turbidity - 7 and 33 NTU

Quad 3 (Quad 3-1-mid-depth and Quad 3-2-interface):

- Total Phosphorous - 1.9 and 15 mg/l
- pH - 7.3 and 7.0SU
- E. Coli - 2.0 and 11.9 MPN/100ml
- PAHs - Detected in Quad 1-2, see attached **Sample Results Tables**.
- Total Nitrogen - 9.5 and 56 mg/l
- Nitrate - <0.5 and <0.5 mg/l
- Nitrite - <0.5 and <0.5 mg/l
- TKN - 9.5 and 56 mg/l
- Aluminum - <0.05 and 40 mg/l
- BOD - 13 and 71 mg/l
- TSS - 14 and 1400 mg/l
- Turbidity - 7 and 650 NTU

Quad 4 (Quad 4-1-mid-depth and Quad 4-2-interface):

- Total Phosphorous - 1.9 and 10 mg/l
- pH - 7.3 and 7.1 SU
- E. Coli - 3.1 and 1MPN/100ml
- PAHs - Detected in Quad 1-2, see attached **Sample Results Tables**.
- Total Nitrogen - 9.3 and 35 mg/l
- Nitrate - <0.5 and <0.5 mg/l
- Nitrite - <0.5 and <0.5 mg/l
- TKN - 9.3 and 35 mg/l
- Aluminum - <0.05 and 6.5 mg/l
- BOD - 11 and 24 mg/l
- TSS - 15 and 400 mg/l
- Turbidity - 9 and 110 NTU

Clarifier 1 (Clarifier 1-1-mid-depth and Clarifier 1-2-interface):

- Total Phosphorous - 9.1 and 17 mg/l
- pH - 7.3 and 7.1 SU
- E. Coli - 90.6 and 152.9 MPN/100ml
- PAHs - Detected in Clarifier 1-2, see attached **Sample Results Tables**.
- Total Nitrogen - 60 and 120 mg/l
- Nitrate - <0.5 and <0.5 mg/l
- Nitrite - <0.5 and <0.5 mg/l
- TKN - 60 and 120 mg/l
- Aluminum - 27 and 23 mg/l
- BOD - 42 and 100 mg/l
- TSS - 990 and 3300 mg/l
- Turbidity - 670 and 1300 NTU

Clarifier 2 (Clarifier 2-1-mid-depth Clarifier 2-2-interface):

- Total Phosphorous - 0.02 and 3.7 mg/l
- pH - 8.2 and 7.2 SU
- E. Coli - <1 and <1 MPN/100ml
- PAHs - Detected in Clarifier 1-2, see attached **Sample Results Tables**.
- Total Nitrogen - <0.5 and 16 mg/l
- Nitrate - <0.5 and <0.5 mg/l
- Nitrite - <0.5 and <0.5 mg/l
- TKN - <0.5 and 16 mg/l
- Aluminum - <0.05 and 8.6 mg/l
- BOD - <6 and 40 mg/l
- TSS - <5 and 990 mg/l
- Turbidity - 1 and 340 NTU

Clarifier 3 (Clarifier 3-1-mid-depth and Clarifier 3-2-interface):

- Total Phosphorous - 0.08 and 11 mg/l
- pH - 7.2 and 7.1 SU
- E. Coli - <1 and 1 MPN/100ml
- PAHs - Detected in Clarifier 1-2, see attached **Sample Results Tables**.
- Total Nitrogen - 1 and 26 mg/l
- Nitrate - <0.5 and <0.5 mg/l
- Nitrite - <0.5 and <0.5 mg/l
- TKN - 1 and 26 mg/l
- Aluminum - <0.05 and 3.8 mg/l
- BOD - 9 and 47 mg/l
- TSS - 45 and 750 mg/l
- Turbidity - 5 and 1 NTU

Recommendations:

Based on the Analytical Results completed by Eastern Analytical Inc., Horizons Engineering Inc. recommends pumping each lagoon and clarifier down to the supernatant interface individually and discharging to the nearby Upper Ammonoonsuc River in fall/winter 2013. Allowable pumping rates will be established based on BOD and TSS to meet the permit conditions while discharging. Horizons proposes that turbidity be monitored during the discharge to determine when the wastewater has reached the supernatant interface. An established allowable amount of turbidity will be determined based on the relationship between turbidity and total suspended solids detected in the samples obtained (see to **TSS vs Turbidity Graph**).

Once initial dewatering is completed Horizons proposes in the spring of 2014 that the remaining sludge and supernatant water within the lagoons and clarifiers be pumped, dewatered and disposed of at the proper facility. Water removed from sludge will be run through a bag filter and discharged to the outfall of the treatment facility and to the nearby Upper Ammonoosuc River.

Michael Czok
Project Engineer
Horizons Engineering, Inc.

Attachments: Analytical Results
Sample Results Tables
TSS vs Turbidity Graph
Table 1
Sampling Location Site Plan

cc: Mike Stirling, Green Steel

Eastern Analytical, Inc.

Professional laboratory & drilling services

Jon Warzocha
Horizons Engineering PLLC
34 School Street
Littleton , NH 03561

ACCREDITED IN ACCORDANCE WITH nelac

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 125746
Client Identification: Groveton Lagoons | 13087
Date Received: 10/22/2013

Dear Mr. Warzocha :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director | 10-30-13 Date | 8 # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **125746**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Temperature upon receipt (°C): 1.7 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
125746.01	Polish 1	10/22/13	10/22/13	sludge	16.5	Adheres to Sample Acceptance Policy
125746.02	Polish 2	10/22/13	10/22/13	sludge	4.1	Adheres to Sample Acceptance Policy
125746.03	Quadrant 1	10/22/13	10/22/13	sludge	2.1	Adheres to Sample Acceptance Policy
125746.04	Quadrant 2	10/22/13	10/22/13	sludge	1.9	Adheres to Sample Acceptance Policy
125746.05	Quadrant 3	10/22/13	10/22/13	sludge	2.3	Adheres to Sample Acceptance Policy
125746.06	Quadrant 4	10/22/13	10/22/13	sludge	2.3	Adheres to Sample Acceptance Policy
125746.07	Clarifier 1	10/22/13	10/22/13	sludge	3.9	Adheres to Sample Acceptance Policy
125746.08	Clarifier 2	10/22/13	10/22/13	sludge	6.4	Adheres to Sample Acceptance Policy
125746.09	Clarifier 3	10/22/13	10/22/13	sludge	2.1	Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater,20th Edition, 1998 and 22nd Edition, 2012
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

LABORATORY REPORT

EAI ID#: **125746**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID:	Polish 1	Polish 2	Quadrant 1	Quadrant 2	Quadrant 3	Quadrant 4	Clarifier 1
Lab Sample ID:	125746.01	125746.02	125746.03	125746.04	125746.05	125746.06	125746.07
Matrix:	sludge	sludge	sludge	sludge	sludge	sludge	sludge
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	10/25/13	10/25/13	10/25/13	10/25/13	10/25/13	10/25/13	10/25/13
Analyst:	BML	BML	BML	BML	BML	BML	BML
Method:	8260B	8260B	8260B	8260B	8260B	8260B	8260B
Dilution Factor:	6	23	50	53	42	67	32
Dichlorodifluoromethane	< 0.6	< 2	< 5	< 5	< 4	< 7	< 3
Chloromethane	< 0.6	< 2	< 5	< 5	< 4	< 7	< 3
Vinyl chloride	< 0.6	< 2	< 5	< 5	< 4	< 7	< 3
Bromomethane	< 0.6	< 2	< 5	< 5	< 4	< 7	< 3
Chloroethane	< 0.6	< 2	< 5	< 5	< 4	< 7	< 3
Trichlorofluoromethane	< 0.6	< 2	< 5	< 5	< 4	< 7	< 3
Diethyl Ether	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Acetone	< 10	< 50	< 100	< 100	< 80	< 100	< 60
1,1-Dichloroethene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
tert-Butyl Alcohol (TBA)	< 10	< 50	< 100	< 100	< 80	< 100	< 60
Methylene chloride	< 0.6	< 2	< 5	< 5	< 4	< 7	< 3
Carbon disulfide	< 0.6	< 2	< 5	< 5	< 4	< 7	< 3
Methyl-t-butyl ether(MTBE)	< 0.6	< 2	< 5	< 5	< 4	< 7	< 3
Ethyl-t-butyl ether(ETBE)	< 0.6	< 2	< 5	< 5	< 4	< 7	< 3
Isopropyl ether(DIPE)	< 0.6	< 2	< 5	< 5	< 4	< 7	< 3
tert-amyl methyl ether(TAME)	< 0.6	< 2	< 5	< 5	< 4	< 7	< 3
trans-1,2-Dichloroethene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,1-Dichloroethane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
2,2-Dichloropropane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
cis-1,2-Dichloroethene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
2-Butanone(MEK)	< 3	< 10	< 20	< 30	< 20	< 30	< 20
Bromochloromethane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Tetrahydrofuran(THF)	< 3	< 10	< 20	< 30	< 20	< 30	< 20
Chloroform	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,1,1-Trichloroethane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Carbon tetrachloride	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,1-Dichloropropene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Benzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,2-Dichloroethane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Trichloroethene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,2-Dichloropropane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Dibromomethane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Bromodichloromethane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,4-Dioxane	< 20	< 70	< 100	< 200	< 100	< 200	< 100
4-Methyl-2-pentanone(MIBK)	< 3	< 10	< 20	< 30	< 20	< 30	< 20
cis-1,3-Dichloropropene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Toluene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
trans-1,3-Dichloropropene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,1,2-Trichloroethane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
2-Hexanone	< 0.6	< 2	< 5	< 5	< 4	< 7	< 3
Tetrachloroethene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,3-Dichloropropane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Dibromochloromethane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,2-Dibromoethane(EDB)	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Chlorobenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,1,1,2-Tetrachloroethane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Ethylbenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2

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LABORATORY REPORT

EAI ID#: **125746**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID:	Polish 1	Polish 2	Quadrant 1	Quadrant 2	Quadrant 3	Quadrant 4	Clarifier 1
Lab Sample ID:	125746.01	125746.02	125746.03	125746.04	125746.05	125746.06	125746.07
Matrix:	sludge	sludge	sludge	sludge	sludge	sludge	sludge
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	10/25/13	10/25/13	10/25/13	10/25/13	10/25/13	10/25/13	10/25/13
Analyst:	BML	BML	BML	BML	BML	BML	BML
Method:	8260B	8260B	8260B	8260B	8260B	8260B	8260B
Dilution Factor:	6	23	50	53	42	67	32
mp-Xylene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
o-Xylene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Styrene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Bromoform	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
IsoPropylbenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Bromobenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,1,2,2-Tetrachloroethane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,2,3-Trichloropropane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
n-Propylbenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
2-Chlorotoluene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
4-Chlorotoluene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,3,5-Trimethylbenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
tert-Butylbenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,2,4-Trimethylbenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
sec-Butylbenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,3-Dichlorobenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
p-Isopropyltoluene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,4-Dichlorobenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,2-Dichlorobenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
n-Butylbenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,2-Dibromo-3-chloropropane	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,3,5-Trichlorobenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
1,2,4-Trichlorobenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Hexachlorobutadiene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
Naphthalene	< 0.6	< 2	< 5	< 5	< 4	< 7	< 3
1,2,3-Trichlorobenzene	< 0.3	< 1	< 2	< 3	< 2	< 3	< 2
4-Bromofluorobenzene (surr)	**97 %R**	**98 %R**	**97 %R**	**99 %R**	**99 %R**	**99 %R**	**97 %R**
1,2-Dichlorobenzene-d4 (surr)	**101 %R**	**100 %R**	**99 %R**	**100 %R**	**99 %R**	**100 %R**	**100 %R**
Toluene-d8 (surr)	**99 %R**	**99 %R**	**99 %R**	**98 %R**	**100 %R**	**98 %R**	**99 %R**

Reporting limits are elevated due to the low solids content of the sample.

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LABORATORY REPORT

EAI ID#: **125746**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID:	Clarifier 2	Clarifier 3
Lab Sample ID:	125746.08	125746.09
Matrix:	sludge	sludge
Date Sampled:	10/22/13	10/22/13
Date Received:	10/22/13	10/22/13
Units:	mg/kg	mg/kg
Date of Analysis:	10/28/13	10/28/13
Analyst:	VG	VG
Method:	8260B	8260B
Dilution Factor:	15	47
Dichlorodifluoromethane	< 2	< 5
Chloromethane	< 2	< 5
Vinyl chloride	< 2	< 5
Bromomethane	< 2	< 5
Chloroethane	< 2	< 5
Trichlorofluoromethane	< 2	< 5
Diethyl Ether	< 0.8	< 2
Acetone	< 30	< 90
1,1-Dichloroethene	< 0.8	< 2
tert-Butyl Alcohol (TBA)	< 30	< 90
Methylene chloride	< 2	< 5
Carbon disulfide	< 2	< 5
Methyl-t-butyl ether(MTBE)	< 2	< 5
Ethyl-t-butyl ether(ETBE)	< 2	< 5
Isopropyl ether(DIPE)	< 2	< 5
tert-amyl methyl ether(TAME)	< 2	< 5
trans-1,2-Dichloroethene	< 0.8	< 2
1,1-Dichloroethane	< 0.8	< 2
2,2-Dichloropropane	< 0.8	< 2
cis-1,2-Dichloroethene	< 0.8	< 2
2-Butanone(MEK)	< 8	< 20
Bromochloromethane	< 0.8	< 2
Tetrahydrofuran(THF)	< 8	< 20
Chloroform	< 0.8	< 2
1,1,1-Trichloroethane	< 0.8	< 2
Carbon tetrachloride	< 0.8	< 2
1,1-Dichloropropene	< 0.8	< 2
Benzene	< 0.8	< 2
1,2-Dichloroethane	< 0.8	< 2
Trichloroethene	< 0.8	< 2
1,2-Dichloropropane	< 0.8	< 2
Dibromomethane	< 0.8	< 2
Bromodichloromethane	< 0.8	< 2
1,4-Dioxane	< 50	< 100
4-Methyl-2-pentanone(MIBK)	< 8	< 20
cis-1,3-Dichloropropene	< 0.8	< 2
Toluene	< 0.8	< 2
trans-1,3-Dichloropropene	< 0.8	< 2
1,1,2-Trichloroethane	< 0.8	< 2
2-Hexanone	< 2	< 5
Tetrachloroethene	< 0.8	< 2
1,3-Dichloropropane	< 0.8	< 2
Dibromochloromethane	< 0.8	< 2
1,2-Dibromoethane(EDB)	< 0.8	< 2
Chlorobenzene	< 0.8	< 2
1,1,1,2-Tetrachloroethane	< 0.8	< 2
Ethylbenzene	< 0.8	< 2

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LABORATORY REPORT

EAI ID#: **125746**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID:	Clarifier 2	Clarifier 3
Lab Sample ID:	125746.08	125746.09
Matrix:	sludge	sludge
Date Sampled:	10/22/13	10/22/13
Date Received:	10/22/13	10/22/13
Units:	mg/kg	mg/kg
Date of Analysis:	10/28/13	10/28/13
Analyst:	VG	VG
Method:	8260B	8260B
Dilution Factor:	15	47
mp-Xylene	< 0.8	< 2
o-Xylene	< 0.8	< 2
Styrene	< 0.8	< 2
Bromoform	< 0.8	< 2
IsoPropylbenzene	< 0.8	< 2
Bromobenzene	< 0.8	< 2
1,1,2,2-Tetrachloroethane	< 0.8	< 2
1,2,3-Trichloropropane	< 0.8	< 2
n-Propylbenzene	< 0.8	< 2
2-Chlorotoluene	< 0.8	< 2
4-Chlorotoluene	< 0.8	< 2
1,3,5-Trimethylbenzene	< 0.8	< 2
tert-Butylbenzene	< 0.8	< 2
1,2,4-Trimethylbenzene	< 0.8	< 2
sec-Butylbenzene	< 0.8	< 2
1,3-Dichlorobenzene	< 0.8	< 2
p-Isopropyltoluene	< 0.8	< 2
1,4-Dichlorobenzene	< 0.8	< 2
1,2-Dichlorobenzene	< 0.8	< 2
n-Butylbenzene	< 0.8	< 2
1,2-Dibromo-3-chloropropane	< 0.8	< 2
1,3,5-Trichlorobenzene	< 0.8	< 2
1,2,4-Trichlorobenzene	< 0.8	< 2
Hexachlorobutadiene	< 0.8	< 2
Naphthalene	< 2	< 5
1,2,3-Trichlorobenzene	< 0.8	< 2
4-Bromofluorobenzene (surr)	**100 %R**	**101 %R**
1,2-Dichlorobenzene-d4 (surr)	**100 %R**	**101 %R**
Toluene-d8 (surr)	**96 %R**	**98 %R**

Reporting limits are elevated due to the low solids content of the sample.

LABORATORY REPORT

EAI ID#: **125746**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID:	Polish 1	Polish 2	Quadrant 1	Quadrant 2					
Lab Sample ID:	125746.01	125746.02	125746.03	125746.04					
Matrix:	sludge	sludge	sludge	sludge					
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13					
Arsenic	**1.5**	**2.1**	**3.3**	**3.0**	SolTotDry	mg/kg	10/28/13	6020	DS
Barium	**57**	**180**	**470**	**480**	SolTotDry	mg/kg	10/28/13	6020	DS
Cadmium	**0.7**	**4.7**	**5.8**	**5.2**	SolTotDry	mg/kg	10/28/13	6020	DS
Chromium	**15**	**26**	**57**	**58**	SolTotDry	mg/kg	10/28/13	6020	DS
Lead	**4.2**	**14**	**7.6**	**6.8**	SolTotDry	mg/kg	10/28/13	6020	DS
Mercury	< 0.1	**0.1**	**0.6**	**0.6**	SolTotDry	mg/kg	10/28/13	6020	DS
Selenium	< 0.5	< 0.6	**1.1**	**1.7**	SolTotDry	mg/kg	10/28/13	6020	DS
Silver	< 0.5	< 0.6	< 0.5	< 0.5	SolTotDry	mg/kg	10/28/13	6020	DS

Sample ID:	Quadrant 3	Quadrant 4	Clarifier 1	Clarifier 2					
Lab Sample ID:	125746.05	125746.06	125746.07	125746.08					
Matrix:	sludge	sludge	sludge	sludge					
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13					
Arsenic	**2.9**	**3.0**	**3.4**	**9.3**	SolTotDry	mg/kg	10/28/13	6020	DS
Barium	**400**	**440**	**300**	**260**	SolTotDry	mg/kg	10/28/13	6020	DS
Cadmium	**7.4**	**3.4**	**7.3**	**5.5**	SolTotDry	mg/kg	10/28/13	6020	DS
Chromium	**53**	**55**	**35**	**73**	SolTotDry	mg/kg	10/28/13	6020	DS
Lead	**17**	**9.1**	**27**	**69**	SolTotDry	mg/kg	10/28/13	6020	DS
Mercury	**0.5**	**1.1**	**0.3**	**0.9**	SolTotDry	mg/kg	10/28/13	6020	DS
Selenium	**1.3**	**1.4**	**1.3**	**1.2**	SolTotDry	mg/kg	10/28/13	6020	DS
Silver	< 0.5	**0.8**	< 0.6	< 0.5	SolTotDry	mg/kg	10/28/13	6020	DS

LABORATORY REPORT

EAI ID#: **125746**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID: Clarifier 3

Lab Sample ID: 125746.09

Matrix: sludge

Date Sampled: 10/22/13

Date Received: 10/22/13

		Analytical Matrix	Units	Date of Analysis	Method	Analyst
Arsenic	**2.9**	SolTotDry	mg/kg	10/28/13	6020	DS
Barium	**320**	SolTotDry	mg/kg	10/28/13	6020	DS
Cadmium	**4.8**	SolTotDry	mg/kg	10/28/13	6020	DS
Chromium	**44**	SolTotDry	mg/kg	10/28/13	6020	DS
Lead	**11**	SolTotDry	mg/kg	10/28/13	6020	DS
Mercury	**0.34**	SolTotDry	mg/kg	10/28/13	6020	DS
Selenium	**0.8**	SolTotDry	mg/kg	10/28/13	6020	DS
Silver	< 0.4	SolTotDry	mg/kg	10/28/13	6020	DS

Chain-of-Custody Record

125746

Page _____ of _____

Bold Fields Required. Please Circle Requested Analysis.

Sample I.D.	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	VOC: 524.2 BTEX / 524.2 MTBE only	VOC: 8260B / 624 / 1,4-Dioxane	VOC: 8021B BTEX HALOS	VOC: 8015B GRO MAVPH	SVOC: 8270D 625 SVTICs EDB DBCP ABN A BN PAH	SVOC: TPH8100 L1 L2	SVOC: 8015B DRO MAEPH	SVOC: PEST 608 PCB 608 PEST 8081A PCB 8082	SVOC: Oil & Grease 1664 TPH 1664	TCLP: TCLP 1311 ABN Metals VOC Pest Herb	Metals: Dissolved Metals (List Below)	Metals: Total Metals (List Below)	Inorganics: TS TSS TDS Spec. Con.	Inorganics: Br Cl F SO_4 NO_2 NO_3 NO_2NO_2	Inorganics: BOD CBOD T. Alk.	Inorganics: TKN NH_3 T. Phos. O. Phos.	Inorganics: pH T. Res. Chlorine	Inorganics: COD Phenols TOC DOC	Inorganics: Total Cyanide Total Sulfide	Inorganics: Reactive Cyanide Reactive Sulfide Flashpoint Ignitability	Micro: Total Coliform E. Coli Fecal Coliform	Micro: Enterococci Heterotrophic Plate Count	Other	Other	Other	# of Containers	Notes MeOH Vial #
Polish 1	10/22/13 9:00				*										*															
Polish 2	10/22/13 9:30				↓										↓															
~~Eng~~ Quadrant 1	10/22/13 12:30																													
Quadrant 2	10/22/13 12:00																													
Quadrant 3	10/22/13 1:00																													
Quadrant 4	10/22/13 11:00																													
Clarifier 1	10/22/13 1:30																													
Clarifier 2	10/22/13 1:45																													
Clarifier 3	10/22/13 2:00				↓										↓															

Matrix: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste Water

Preservative: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

Project Manager: Jon Warzocha

Company: Horizons Engineering

Address: 34 School Street

City: Littleton **State:** NH **Zip:** 03561

Phone: 603-444-4111 **Ext.:**

Fax:

E-Mail: mczok@HorizonsEngineering.com

Site Name: Groveton Lagoons

Project #: 13094

State: NH MA ME VT **Other:**

Regulatory Program: NPDES: RGP POTW Stormwater or GWP, Oil Fund, Brownfield or Other:

Quote #: **PO #:**

Date Needed:

QA/QC Reporting Level A B C

OR

Presumptive Certainty

Reporting Options Prelims: Yes or No

If Yes: Fax or PDF

Electronic Options No Fax E-Mail PDF Equis

Temp. 1.7 °C

Ice? Yes No

Sampler(s): Michael Czok

Michael Czok 10/22/13 6:12PM

Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Metals: 8 RCRA 13 PP Fe, Mn Pb, Cu

Other Metals: [redacted]

Samples Field Filtered? ☐ Yes ☐ No

Notes: (ie: Special Detection Limits, Billing Info, If Different)

[redacted]

Hold until notified by J. Warzocha to proceed. JW 10/23

Site History:

Suspected Contamination:

Field Readings:

Eastern Analytical, Inc.
Professional laboratory & drilling services
25 Chenell Drive | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | Fax: 603.228.4591 | E-Mail: customerservice@eailabs.com | www.eailabs.com

(White: Original Green: Project Manager)

* OK to run all samples per customer DOB 10/22/13

Invoice

126880

Eastern Analytical, Inc.
25 Chenell Drive
Concord, NH 03301

(603)-228-0525
1-800-287-0525
FAX: (603)-228-4591

Job Description **125746**

Site Name: Groveton Lagoons | 13087
Contact: Jon Warzocha
Date Received: 10/22/2013

Horizons Engineering PLLC
34 School Street
Littleton NH 03561
ATTN: Accounts Payable

Invoice Date	Your Order Number	Terms
10/29/2013	Verbal	1:Net 30

Quantity	Item Description	Discountable	List Price	Extended Price Gross
9	Metals Solid Prep	Y	30.00	270.00
9	8 RCRA Metals (As, Ba, Cd, Cr, Pb, Hg, Se, Ag)	Y	120.00	1080.00
9	VOCs 8260B NH	Y	165.00	1485.00

Gross Invoice Amount		$2,835.00
Discount of 20 %	-	$567.00
Please pay this amount:		**$2,268.00**

Thank you for this opportunity to be of service

Eastern Analytical, Inc.

professional laboratory & drilling services

Jon Warzocha
Horizons Engineering PLLC
34 School Street
Littleton , NH 03561

ACCREDITED IN ACCORDANCE WITH nelac

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 125747
Client Identification: Groveton Lagoons | 13087
Date Received: 10/22/2013

Dear Mr. Warzocha :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director	10.30.13 Date	12 # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **125747**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Temperature upon receipt (°C): 1.7 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
125747.01	Polish-1-1	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy E.coli sample was run past its hold time per client instructions.
125747.02	Polish-1-2	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy E.coli sample was run past its hold time per client instructions.
125747.03	Quad-1-1	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy
125747.04	Quad-1-2	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy
125747.05	Quad-2-1	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy
125747.06	Quad-2-2	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy
125747.07	Quad-3-1	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy
125747.08	Quad-3-2	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy
125747.09	Quad-4-1	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy
125747.1	Quad-4-2	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy
125747.11	Clarifier-1-1	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy
125747.12	Clarifier-1-2	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy
125747.13	Clarifier-2-1	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy
125747.14	Clarifier-2-2	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy
125747.15	Clarifier-3-1	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy
125747.16	Clarifier-3-2	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy
125747.17	Polish-2-1	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy E.coli sample was run past its hold time per client instructions.
125747.18	Polish-2-2	10/22/13	10/22/13	aqueous		Adheres to Sample Acceptance Policy E.coli sample was run past its hold time per client instructions.

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater,20th Edition, 1998 and 22nd Edition, 2012
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

LABORATORY REPORT

EAI ID#: **125747**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID:	Polish-1-1	Polish-1-2	Quad-1-1	Quad-1-2	Quad-2-1	Quad-2-2	Quad-3-1
Lab Sample ID:	125747.01	125747.02	125747.03	125747.04	125747.05	125747.06	125747.07
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Extraction/Prep:	10/28/13	10/28/13	10/28/13	10/28/13	10/28/13	10/28/13	10/28/13
Date of Analysis:	10/28/13	10/28/13	10/28/13	10/28/13	10/28/13	10/28/13	10/28/13
Analyst:	JMR	JMR	JMR	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	1	1	1	1	1
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	< 0.1	**0.37**	< 0.1	< 0.1	< 0.1	**0.13**	< 0.1
Anthracene	< 0.1	**0.12**	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	**0.34**	**4.8**	< 0.1	**0.56**	< 0.1	**1.3**	< 0.1
Pyrene	**0.30**	**4.3**	< 0.1	**0.55**	< 0.1	**1.2**	< 0.1
Benzo[a]anthracene	< 0.1	**1.9**	< 0.1	**0.31**	< 0.1	**0.54**	< 0.1
Chrysene	**0.13**	**3.4**	< 0.1	**0.58**	< 0.1	**1.1**	< 0.1
Benzo[b]fluoranthene	< 0.1	**3.8**	< 0.1	**0.70**	< 0.1	**1.2**	< 0.1
Benzo[k]fluoranthene	< 0.1	**0.93**	< 0.1	**0.18**	< 0.1	**0.31**	< 0.1
Benzo[a]pyrene	< 0.1	**2.8**	< 0.1	**0.48**	< 0.1	**0.83**	< 0.1
Indeno[1,2,3-cd]pyrene	< 0.1	**2.9**	< 0.1	**0.56**	< 0.1	**1.0**	< 0.1
Dibenz[a,h]anthracene	< 0.1	**0.49**	< 0.1	< 0.1	< 0.1	**0.17**	< 0.1
Benzo[g,h,i]perylene	< 0.1	**3.3**	< 0.1	**0.66**	< 0.1	**1.2**	< 0.1
p-Terphenyl-D14 (surr)	**96 %R**	**66 %R**	**83 %R**	**72 %R**	**76 %R**	**72 %R**	**68 %R**

LABORATORY REPORT

EAI ID#: **125747**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID:	Quad-3-2	Quad-4-1	Quad-4-2	Clarifier-1-1	Clarifier-1-2	Clarifier-2-1	Clarifier-2-2
Lab Sample ID:	125747.08	125747.09	125747.1	125747.11	125747.12	125747.13	125747.14
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13	10/22/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Extraction/Prep:	10/28/13	10/28/13	10/28/13	10/28/13	10/28/13	10/28/13	10/28/13
Date of Analysis:	10/28/13	10/28/13	10/28/13	10/28/13	10/28/13	10/28/13	10/28/13
Analyst:	JMR	JMR	JMR	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	1	1	1	1	1
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.1	**0.22**	< 0.1	< 0.1
2-Methylnaphthalene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	< 0.1	**0.11**	< 0.1	< 0.1
Acenaphthene	< 0.1	< 0.1	< 0.1	< 0.1	**0.36**	< 0.1	**0.12**
Fluorene	< 0.1	< 0.1	< 0.1	< 0.1	**0.33**	< 0.1	**0.12**
Phenanthrene	**0.54**	< 0.1	**0.40**	**1.0**	**3.8**	< 0.1	**0.66**
Anthracene	**0.21**	< 0.1	**0.15**	**0.41**	**1.4**	< 0.1	**0.21**
Fluoranthene	**6.5**	< 0.1	**4.5**	**16**	**43**	< 0.1	**3.3**
Pyrene	**6.1**	< 0.1	**4.4**	**14**	**44**	< 0.1	**3.1**
Benzo[a]anthracene	**2.7**	< 0.1	**1.9**	**5.2**	**16**	< 0.1	**1.4**
Chrysene	**4.9**	< 0.1	**3.4**	**9.0**	**27**	< 0.1	**2.6**
Benzo[b]fluoranthene	**5.4**	< 0.1	**3.7**	**8.5**	**25**	< 0.1	**2.9**
Benzo[k]fluoranthene	**1.4**	< 0.1	**1.0**	**2.2**	**5.8**	< 0.1	**0.80**
Benzo[a]pyrene	**4.4**	< 0.1	**2.9**	**7.2**	**21**	< 0.1	**2.1**
Indeno[1,2,3-cd]pyrene	**4.7**	< 0.1	**3.3**	**6.3**	**18**	< 0.1	**2.1**
Dibenz[a,h]anthracene	**0.78**	< 0.1	**0.54**	**1.1**	**3.1**	< 0.1	**0.38**
Benzo[g,h,i]perylene	**5.2**	< 0.1	**3.7**	**6.8**	**17**	< 0.1	**2.3**
p-Terphenyl-D14 (surr)	**57 %R**	**72 %R**	**61 %R**	**68 %R**	**64 %R**	**83 %R**	**72 %R**

LABORATORY REPORT

EAI ID#: **125747**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID:	Clarifier-3-1	Clarifier-3-2	Polish-2-1	Polish-2-2
Lab Sample ID:	125747.15	125747.16	125747.17	125747.18
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13
Units:	ug/l	ug/l	ug/l	ug/l
Date of Extraction/Prep:	10/28/13	10/28/13	10/28/13	10/28/13
Date of Analysis:	10/28/13	10/28/13	10/28/13	10/29/13
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	1	1
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	< 0.1	**0.87**	< 0.1	**0.58**
Anthracene	< 0.1	**0.20**	< 0.1	**0.21**
Fluoranthene	**0.13**	**8.2**	**0.25**	**6.6**
Pyrene	< 0.1	**8.0**	**0.23**	**6.2**
Benzo[a]anthracene	< 0.1	**3.5**	**0.10**	**2.6**
Chrysene	< 0.1	**6.3**	**0.11**	**4.5**
Benzo[b]fluoranthene	< 0.1	**6.1**	< 0.1	**4.6**
Benzo[k]fluoranthene	< 0.1	**1.7**	< 0.1	**1.1**
Benzo[a]pyrene	< 0.1	**4.8**	< 0.1	**3.8**
Indeno[1,2,3-cd]pyrene	< 0.1	**4.0**	< 0.1	**3.6**
Dibenz[a,h]anthracene	< 0.1	**0.76**	< 0.1	**0.64**
Benzo[g,h,i]perylene	< 0.1	**4.3**	< 0.1	**3.9**
p-Terphenyl-D14 (surr)	**85 %R**	**62 %R**	**75 %R**	**71 %R**

LABORATORY REPORT

EAI ID#: **125747**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID:	Polish-1-1	Polish-1-2	Quad-1-1	Quad-1-2					
Lab Sample ID:	125747.01	125747.02	125747.03	125747.04					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13		**Analysis**			
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13	**Units**	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**18**	**240**	**15**	**370**	mg/L	10/28/13	12:25	2540D-97	SCW
Nitrite-N	< 0.5	< 0.5	< 0.5	< 0.5	mg/L	10/23/13	11:02	353.2	KD
Nitrate-N	< 0.5	< 0.5	< 0.5	< 0.5	mg/L	10/23/13	11:02	353.2	KD
TKN	**3.7**	**14**	**9.3**	**14**	mg/L	10/28/13	12:00	4500N$_{orm}$C/N	SEL
Total Nitrogen	**3.7**	**14**	**9.3**	**14**	mg/L	10/28/13	13:30	4500N$_{orm}$C/N	SEL
Total Phosphorus-P	**0.32**	**3.7**	**1.8**	**5.3**	mg/L	10/28/13	10:50	365.1	SEL
BOD	**11**	**31**	**12**	< 30	mg/L	10/23/13	10:39	5210B-97	SCW
Turbidity	**12**	**130**	**7**	**150**	NTU	10/22/13	20:10	180.1	JL
pH	**6.6**	**6.5**	**7.3**	**7.0**	SU	10/22/13	19:30	4500H+B	JL
E.coli	**70.3**	**114.5**	**3.1**	**3.1**	MPN/100ml	10/22/13	17:50	9223B	KL

Sample ID:	Quad-2-1	Quad-2-2	Quad-3-1	Quad-3-2					
Lab Sample ID:	125747.05	125747.06	125747.07	125747.08					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13		**Analysis**			
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13	**Units**	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**16**	**480**	**14**	**1400**	mg/L	10/28/13	12:25	2540D-97	SCW
Nitrite-N	< 0.5	< 0.5	< 0.5	< 0.5	mg/L	10/23/13	11:07	353.2	KD
Nitrate-N	< 0.5	< 0.5	< 0.5	< 0.5	mg/L	10/23/13	11:07	353.2	KD
TKN	**9.3**	**17**	**9.5**	**56**	mg/L	10/28/13	12:00	4500N$_{orm}$C/N	SEL
Total Nitrogen	**9.3**	**17**	**9.5**	**56**	mg/L	10/28/13	13:30	4500N$_{orm}$C/N	SEL
Total Phosphorus-P	**1.8**	**4.9**	**1.9**	**15**	mg/L	10/28/13	12:49	365.1	SEL
BOD	**17**	**69**	**13**	**71**	mg/L	10/23/13	10:39	5210B-97	SCW
Turbidity	**7**	**33**	**7**	**650**	NTU	10/22/13	20:10	180.1	JL
pH	**7.2**	**7.1**	**7.3**	**7.0**	SU	10/22/13	19:30	4500H+B	JL
E.coli	**4.1**	< 1	**2.0**	**11.9**	MPN/100ml	10/22/13	17:50	9223B	KL

E.coli: The samples "Polish-1-1" and "Polish-1-2" were run past their hold time per client instructions. The hold time for E.coli in waste water is 8 hours.

BOD "Quad-1-2": The DO depletion in the dilutions analyzed did not meet the recommended criteria of 2 mg/L for a valid BOD reading resulting in an elevated reporting limit.

Total Nitrogen is determined by the addition of Nitrate-N, Nitrite-N and TKN (TKN = Ammonia plus TON) concentrations.

LABORATORY REPORT

EAI ID#: **125747**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID:	Quad-4-1	Quad-4-2	Clarifier-1-1	Clarifier-1-2					
Lab Sample ID:	125747.09	125747.1	125747.11	125747.12					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13		**Analysis**			
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13	**Units**	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**15**	**400**	**990**	**3300**	mg/L	10/28/13	12:25	2540D-97	SCW
Nitrite-N	< 0.5	< 0.5	< 0.5	< 0.5	mg/L	10/23/13	11:11	353.2	KD
Nitrate-N	< 0.5	< 0.5	< 0.5	< 0.5	mg/L	10/23/13	11:11	353.2	KD
TKN	**9.3**	**35**	**60**	**120**	mg/L	10/28/13	12:00	4500N$_{org}$C/N	SEL
Total Nitrogen	**9.3**	**35**	**60**	**120**	mg/L	10/28/13	13:30	4500N$_{org}$C/N	SEL
Total Phosphorus-P	**1.9**	**10**	**9.1**	**17**	mg/L	10/28/13	12:51	365.1	SEL
BOD	**11**	**24E**	**42**	**100**	mg/L	10/23/13	11:27	5210B-97	SCW
Turbidity	**9**	**110**	**670**	**1300**	NTU	10/22/13	20:10	180.1	JL
pH	**7.3**	**7.1**	**7.3**	**7.1**	SU	10/22/13	19:40	4500H+B	JL
E.coli	**3.1**	**1**	**90.6**	**152.9**	MPN/100ml	10/22/13	17:50	9223B	KL

Sample ID:	Clarifier-2-1	Clarifier-2-2	Clarifier-3-1	Clarifier-3-2					
Lab Sample ID:	125747.13	125747.14	125747.15	125747.16					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13		**Analysis**			
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13	**Units**	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	< 5	**990**	**45**	**750**	mg/L	10/28/13	12:25	2540D-97	SCW
Nitrite-N	< 0.5	< 0.5	< 0.5	< 0.5	mg/L	10/23/13	11:36	353.2	KD
Nitrate-N	< 0.5	< 0.5	< 0.5	< 0.5	mg/L	10/23/13	11:36	353.2	KD
TKN	< 0.5	**16**	**1.0**	**26**	mg/L	10/28/13	12:00	4500N$_{org}$C/N	SEL
Total Nitrogen	< 0.5	**16**	**1.0**	**26**	mg/L	10/28/13	13:30	4500N$_{org}$C/N	SEL
Total Phosphorus-P	**0.02**	**3.7**	**0.08**	**11**	mg/L	10/28/13	12:04	365.1	SEL
BOD	< 6	**40**	**9**	**47**	mg/L	10/23/13	11:27	5210B-97	SCW
Turbidity	**1**	**340**	**5**	**1**	NTU	10/22/13	20:25	180.1	JL
pH	**8.2**	**7.4**	**7.2**	**7.1**	SU	10/22/13	19:50	4500H+B	JL
E.coli	< 1	< 1	< 1	**1**	MPN/100ml	10/22/13	17:50	9223B	KL

BOD E "Quad-4-2": The DO depletion in the dilutions analyzed did not meet the recommended criteria of 2 mg/L for a valid BOD reading. This is an estimated value.

Total Nitrogen is determined by the addition of Nitrate-N, Nitrite-N and TKN (TKN = Ammonia plus TON) concentrations.

LABORATORY REPORT

EAI ID#: **125747**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID:	Polish-2-1	Polish-2-2						
Lab Sample ID:	125747.17	125747.18						
Matrix:	aqueous	aqueous						
Date Sampled:	10/22/13	10/22/13		**Analysis**				
Date Received:	10/22/13	10/22/13		**Units**	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**35**	**300**		mg/L	10/28/13	12:25	2540D-97	SCW
Nitrite-N	< 0.5	< 0.5		mg/L	10/23/13	11:34	353.2	KD
Nitrate-N	< 0.5	< 0.5		mg/L	10/23/13	11:34	353.2	KD
TKN	**5.6**	**28**		mg/L	10/28/13	12:00	$4500N_{org}C/$	SEL
Total Nitrogen	**5.6**	**28**		mg/L	10/28/13	13:30	$4500N_{orm}C/$	SEL
Total Phosphorus-P	**0.53**	**8.1**		mg/L	10/28/13	12:09	365.1	SEL
BOD	**15**	**22E**		mg/L	10/23/13	11:52	5210B-97	SCW
Turbidity	**17**	**150**		NTU	10/22/13	20:25	180.1	JL
pH	**6.4**	**6.4**		SU	10/22/13	19:50	4500H+B	JL
E.coli	**6.3**	**16**		MPN/100ml	10/22/13	17:50	9223B	KL

E.coli: The samples "Polish-2-1" and "Polish-2-2" were run past their hold time per client instructions. The hold time for E.coli in waste water is 8 hours.

BOD E "Polish-2-2": The DO depletion in the dilutions analyzed did not meet the recommended criteria of 2 mg/L for a valid BOD reading. This is an estimated value.

Total Nitrogen is determined by the addition of Nitrate-N, Nitrite-N and TKN (TKN = Ammonia plus TON) concentrations.

LABORATORY REPORT

EAI ID#: **125747**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID:	Polish-1-1	Polish-1-2	Quad-1-1	Quad-1-2					
Lab Sample ID:	125747.01	125747.02	125747.03	125747.04					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13					
Aluminum	**0.15**	**15**	< 0.05	**38**	AqTot	mg/L	10/28/13	200.8	DS

Sample ID:	Quad-2-1	Quad-2-2	Quad-3-1	Quad-3-2					
Lab Sample ID:	125747.05	125747.06	125747.07	125747.08					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13					
Aluminum	< 0.05	**4.2**	< 0.05	**40**	AqTot	mg/L	10/28/13	200.8	DS

LABORATORY REPORT

EAI ID#: **125747**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID:	Quad-4-1	Quad-4-2	Clarifier-1-1	Clarifier-1-2					
Lab Sample ID:	125747.09	125747.1	125747.11	125747.12					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13					
Aluminum	< 0.05	**6.5**	**27**	**23**	AqTot	mg/L	10/28/13	200.8	DS

Sample ID:	Clarifier-2-1	Clarifier-2-2	Clarifier-3-1	Clarifier-3-2					
Lab Sample ID:	125747.13	125747.14	125747.15	125747.16					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	10/22/13	10/22/13	10/22/13	10/22/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	10/22/13	10/22/13	10/22/13	10/22/13					
Aluminum	< 0.05	**8.6**	< 0.05	**3.8**	AqTot	mg/L	10/28/13	200.8	DS

LABORATORY REPORT

EAI ID#: **125747**

Client: **Horizons Engineering PLLC**

Client Designation: **Groveton Lagoons | 13087**

Sample ID:	Polish-2-1	Polish-2-2					
Lab Sample ID:	125747.17	125747.18					
Matrix:	aqueous	aqueous					
Date Sampled:	10/22/13	10/22/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	10/22/13	10/22/13					
Aluminum	**0.08**	**35**	AqTot	mg/L	10/28/13	200.8	DS

Page _____ of _____

CHAIN-OF-CUSTODY RECORD

FOR 125747

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 524.2 BTEX 524.2 MTBE ONLY	VOC: 8260B 624 VTICs 1, 4 DIOXANE	VOC: 8021B BTEX HALOS	VOC: 8015B GRO MAVPH	SVOC: 8270D 625 SVTICs EDB DBCP ABN A BN PAH	SVOC: TPH8100 L1 L2	SVOC: 8015B DRO MAEPH	SVOC: PEST 608 PCB 608 PEST 8081A PCB 8082	SVOC: OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW)	METALS: TOTAL METALS (LIST BELOW)	INORGANICS: TS TSS TDS SPEC. CON.	INORGANICS: Br Cl F SO4 NO2 NO3 NO2NO2	INORGANICS: BOD CBOD T. ALK.	INORGANICS: TKN NH3 T. PHOS. O. PHOS.	INORGANICS: pH T. RES. CHLORINE	INORGANICS: COD PHENOLS TOC DOC	INORGANICS: TOTAL CYANIDE TOTAL SULFIDE	INORGANICS: REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI FECAL COLIFORM	MICRO: ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: Total Nitrogen	OTHER: Turbidity		# OF CONTAINERS	NOTES MEOH VIAL #
Polish-1-1	10/22/13 9:00							*							*	*	*	*	*	*				*		*	*			①
Polish-1-2	10/22/13 9:00																													①
Qaud-1-1	10/22/13 11:30																													
Qaud-1-2	10/22/13 11:30																													
Qaud-2-1	10/22/13 12:00																													
Qaud-2-2	10/22/13 12:00																													
Qaud-3-1	10/22/13 12:30																													
Qaud-3-2	10/22/13 12:30																													
Qaud-4-1	10/22/13 1:00																													
Qaud-4-2	10/22/13 1:00																													

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: Jon Warzocha

COMPANY: Horizons Engineering Inc

ADDRESS:

CITY: STATE: ZIP:

PHONE: EXT.:

FAX:

E-MAIL:

SITE NAME: Groveton Lagoons

PROJECT #: 13087

STATE: NH MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL

A B C

OR

PRESUMPTIVE CERTAINTY

REPORTING OPTIONS

PRELIMS: YES OR NO

IF YES: FAX OR PDF

ELECTRONIC OPTIONS

NO FAX E-MAIL PDF EQUIS

TEMP. 1.7 °C

ICE? YES NO

SAMPLER(S): Michael Czok

Michael Czok 10/22/13 6:20PM

RELINQUISHED BY: DATE: TIME: RECEIVED BY:

RELINQUISHED BY: DATE: TIME: RECEIVED BY:

RELINQUISHED BY: DATE: TIME: RECEIVED BY:

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS: Aluminum

SAMPLES FIELD FILTERED? ☐ YES ☐ NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

~~PAH - Benzo(B) fluorothane~~

① Run micro past hold and flag on report per John W. 10/23 JW

PAH full list ok per customer

SITE HISTORY: ADB 10/29/13

SUSPECTED CONTAMINATION:

FIELD READINGS:

Eastern Analytical, Inc.
professional laboratory & drilling services

25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

Page _____ of _____

CHAIN-OF-CUSTODY RECORD

125747

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

Sample I.D.	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	VOC: 524.2 BTEX; 524.2 MTBE only	VOC: 8260B 624 1, 4 Dioxane; VTICs	VOC: 8021B BTEX HALOS	VOC: 8015B GRO MAVPH	SVOC: 8270D 625 ABN A BN; SVTICs—EDB DBCP (PAH)	SVOC: TPH8100 L1 L2	SVOC: 8015B DRO MAEPH	SVOC: PEST 608 PEST 8081A; PCB 608 PCB 8082	SVOC: Oil & Grease 1664; TPH 1664	TCLP: TCLP 1311 VOC; ABN Pest Metals Herb	Dissolved Metals (List Below)	Total Metals (List Below)	Inorganics: TS; TDS (TSS) Spec. Con.	Inorganics: Br, Cl, F, SO_4; NO_3 (NO_2), NO_2, NO_3	Inorganics: BOD; CBOD; T. Alk.	Inorganics: TKN; NH_3; T. Phos. O. Phos.	Inorganics: pH; T. Res. Chlorine	Inorganics: COD; Phenols; TOC; DOC	Inorganics: Total Cyanide; Total Sulfide	Inorganics: Reactive Cyanide; Reactive Sulfide; Flashpoint; Ignitability	Micro: Total Coliform; Fecal Coliform (E. Coli); Enterococci; Heterotrophic Plate Count	Other: Total Nitrogen	Other: Turbidity	# of Containers	Notes MeOH Vial #
Clarifier-1-1	10/22/13 1:30							*							*	*	*	*	*	*				*		*	*		
Clarifier-1-2	10/22/13 1:30							↓							↓	↓	↓	↓	↓	↓				↓		↓	↓		
Clarifier-2-1	10/22/13 1:45							↓							↓	↓	↓	↓	↓	↓				↓		↓	↓		
Clarifier 2-2	10/22/13 1:45							↓							↓	↓	↓	↓	↓	↓				↓		↓	↓		
Clarifier 3-1	10/22/13 1:45							↓							↓	↓	↓	↓	↓	↓				↓		↓	↓		
Clarifier 3-2	10/22/13 1:45							↓							↓	↓	↓	↓	↓	↓				↓		↓	↓		
Polish 2-1 ★	10/22/13 0930 ★							*							*	*	*	*	*	*				*		*	*		★ (1)
Polish 2-2 ★	10/22/13 0930 ★							↓							↓	↓	↓	↓	↓	↓				↓		↓	↓		★ (1)

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: Jon Warzocha

COMPANY: Horizons Engineer Inc

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE: _____ EXT.: _____

FAX: _____

E-MAIL: _____

SITE NAME: _____

PROJECT #: _____

STATE: NH MA ME VT OTHER: _____

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER: _____

QUOTE #: _____ PO #: _____

DATE NEEDED: _____

QA/QC REPORTING LEVEL

A B C

OR

PRESUMPTIVE CERTAINTY

REPORTING OPTIONS

PRELIMS: YES OR NO

IF YES: FAX OR PDF

ELECTRONIC OPTIONS

NO FAX E-MAIL PDF EQUIS

TEMP. 1.7 °C

ICE? (YES) NO

SAMPLER(S): Michael Czak

Relinquished By:	Date:	Time:	Received By:
Michael Czak	10/22/13	6:20 PM	

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS: Aluminum

SAMPLES FIELD FILTERED? ☐ YES ☐ NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

~~PAH - Benzofluoranthene~~

★ Added from containers, per J. Warzocha 10/23.

(1) run micro past hold + note. per JW 10/23

~~SITE HISTORY:~~ PAH full list ok per customer

SUSPECTED CONTAMINATION: ~~ND~~ 10/29/13

FIELD READINGS: _____

Eastern Analytical, Inc.
Professional laboratory & drilling services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

Invoice

126889

Eastern Analytical, Inc.
25 Chenell Drive
Concord, NH 03301

(603)-228-0525
1-800-287-0525
FAX: (603)-228-4591

Job Description **125747**

Site Name: Groveton Lagoons | 13087
Contact: Jon Warzocha
Date Received: 10/22/2013

Horizons Engineering PLLC
34 School Street
Littleton NH 03561
ATTN: Accounts Payable

Invoice Date	Your Order Number	Terms
10/30/2013	Verbal	1:Net 30

Quantity	Item Description	Discountable	List Price	Extended Price Gross
18	Solids, Total Suspended	N	15.00	270.00
18	Nitrite	N	15.00	270.00
18	Nitrate	N	15.00	270.00
18	Nitrate & Nitrite	N	15.00	270.00
18	TKN	N	40.00	720.00
18	Total Nitrogen Calculation	N	15.00	270.00
18	Total Phosphorus	N	25.00	450.00
18	BOD	N	40.00	720.00
18	Turbidity	N	15.00	270.00
18	pH	N	5.00	90.00
18	E Coli MPN	N	40.00	720.00
18	Metals Aqueous Prep	Y	10.00	180.00
18	Aluminum	Y	15.00	270.00
18	PAHs 8270	Y	165.00	2970.00

Gross Invoice Amount		$7,740.00
Discount of 30 %	-	$1,026.00
Please pay this amount:		**$6,714.00**

Thank you for this opportunity to be of service

Polish Pond 1 Sampling Results

Date: 11/18/2013

Produced : MZC

Pumping Rate Determination for Decommission				
Allowable Gallons Day	**Liters Day**	**Allowable LBS Day BOD (Per Permit)**	**Allowable Milligrams Day BOD**	**mg/L Allowable**
7,500,000	28,390,575	2,750	1,247,378,000	44
		Allowable LBS Day TSS (Per Permit)	**Allowable Milligrams Day TSS**	
		4,470.00	2,027,556,240.00	71
Sample	**mg/l BOD**	**mg/l TSS**	**Allowable Pumping Rates BOD (Gal Min)**	**Allowable Pumping Rates TSS (Gal Min)**
Polish 1-1 (Mid-Depth)	11	18	20,803	20,665
Polish 1-2 (Mid-Depth)	31	240	7,382	1,550

Polycyclic Aromatic Hydrocarbon		
PAH	**µg/L (PPB)**	**Sample Depth**
Benzo(a)anthracene	1.9	Interface**
Benzo(b)fluoranthene	3.8	Interface**
Benzo(k)fluoranthene	0.93	Interface**
Benzo(a)pyrene	2.8	Interface**
Indeno(1,2,3-cd)pyrene	2.9	Interface**
Dibenz(a,h)anthracene	0.49	Interface**

Aluminum Results		
Samples	**mg/l**	**Sample Depth**
Polish 1-1	0.15	Mid-Depth*
Polish 1-2	15	Interface**

Notes:

* Mid-Depth refers to midway between the surface and supernant interface. This was determined in the field visually a with a sludge judge.

** Interface refered to the depth at which the supernant interface was determined. This was determined in the field visually with a sludge judge.

Polish Pond 2 Sampling Results

Date: 11/18/2013

Produced : MZC

Pumping Rate Determination for Decommission				
Allowable Gallons Day	**Liters Day**	**Allowable LBS Day BOD (Per Permit)**	**Allowable Milligrams Day BOD**	**mg/L Allowable**
7,500,000	28,390,575	2,750	1,247,378,000	44
		Allowable LBS Day TSS (Per Permit)	**Allowable Milligrams Day TSS**	
		4,470.00	2,027,556,240.00	71
Sample	**mg/l BOD**	**mg/l TSS**	**Allowable Pumping Rates BOD (Gal Min)**	**Allowable Pumping Rates TSS (Gal Min)**
Polish 2-1 (Mid-Depth)	15	35	15,256	10,627
Polish 2-2 (Interface)	22	300	10,402	1,240

Polycyclic Aromatic Hydrocarbon		
PAH	**µg/L (PPB)**	**Sample Depth**
Benzo(a)anthracene	3.5	Interface**
Chrysene	6.3	Interface**
Benzo(b)fluoranthene	6.1	Interface**
Benzo(k)fluoranthene	1.7	Interface**
Benzo(a)pyrene	4.8	Interface**
Indeno(1,2,3-cd)pyrene	4	Interface**
Dibenz(a,h)anthracene	0.76	Interface**

Aluminum Results		
Samples	**mg/l**	**Sample Depth**
Polish 2-1	0.08	Mid-Depth*
Polish 2-2	35	Interface**

Notes:

* Mid-Depth refers to midway between the surface and supernant interface. This was determined in the field visually a with a sludge judge.

** Interface refered to the depth at which the supernant interface was determined. This was determined in the field visually with a sludge judge.

Quad 1 Sampling Results

Date: 11/18/2013

Produced : MZC

Pumping Rate Determination for Decommission				
Allowable Gallons Day	**Liters Day**	**Allowable LBS Day BOD (Per Permit)**	**Allowable Milligrams Day BOD**	**mg/L Allowable**
7,500,000	28,390,575	2,750	1,247,378,000	44
		Allowable LBS Day TSS (Per Permit)	**Allowable Milligrams Day TSS**	
		4,470.00	2,027,556,240.00	71
Sample	**mg/l BOD**	**mg/l TSS**	**Allowable Pumping Rates BOD (Gal Min)**	**Allowable Pumping Rates TSS (Gal Min)**
Quad 1-1	12	15	19,070	24,797
Quad 1-2	1	370	228,835	1,005

Polycyclic Aromatic Hydrocarbon		
PAH	**µg/L (PPB)**	**Sample Depth**
Benzo(a)anthracene	0.31	Interface**
Benzo(b)fluoranthene	0.7	Interface**
Benzo(a)pyrene	0.48	Interface**
Indeno(1,2,3-cd)pyrene	0.56	Interface**

Aluminum Results		
Samples	**mg/l**	**Sample Depth**
Quad 1-1	<0.05	Mid-Depth*
Quad 1-2	38	Interface**

Notes:

* Mid-Depth refers to midway between the surface and supernant interface. This was determined in the field visually a with a sludge judge.

** Interface refered to the depth at which the supernant interface was determined. This was determined in the field visually with a sludge judge.

Quad 2 Sampling Results

Date: 11/18/2013

Produced : MZC

Pumping Rate Determination for Decommission				
Allowable Gallons Day	**Liters Day**	**Allowable LBS Day BOD (Per Permit)**	**Allowable Milligrams Day BOD**	**mg/L Allowable**
7,500,000	28,390,575	2,750	1,247,378,000	44
		Allowable LBS Day TSS (Per Permit)	**Allowable Milligrams Day TSS**	
		4,470.00	2,027,556,240.00	71
Sample	**mg/l BOD**	**mg/l TSS**	**Allowable Pumping Rates BOD (Gal Min)**	**Allowable Pumping Rates TSS (Gal Min)**
Quad 2-1 (Mid-Depth)	17	16	13,461	23,248
Quad 2-2 (Interface)	69	480	3,316	775

Polycyclic Aromatic Hydrocarbon		
PAH	**µg/L (PPB)**	**Sample Depth**
Benzo(a)anthracene	0.54	Interface**
Benzo(b)fluoranthene	1.2	Interface**
Benzo(a)pyrene	0.83	Interface**
Indeno(1,2,3-cd)pyrene	1	Interface**
Dibenz(a,h)anthracene	0.17	Interface**

Aluminum Results		
Samples	**mg/l**	**Sample Depth**
Quad 2-1	<0.05	Mid-Depth*
Quad 2-2	4.2	Interface**

Notes:

* Mid-Depth refers to midway between the surface and supernant interface. This was determined in the field visually a with a sludge judge.

** Interface refered to the depth at which the supernant interface was determined. This was determined in the field visually with a sludge judge.

Quad 3 Sampling Results

Date: 11/18/2013

Produced : MZC

Pumping Rate Determination for Decommission				
Allowable Gallons Day	**Liters Day**	**Allowable LBS Day BOD (Per Permit)**	**Allowable Milligrams Day BOD**	**mg/L Allowable**
7,500,000	28,390,575	2,750	1,247,378,000	44
		Allowable LBS Day TSS (Per Permit)	**Allowable Milligrams Day TSS**	
		4,470.00	2,027,556,240.00	71
Sample	**mg/l BOD**	**mg/l TSS**	**Allowable Pumping Rates BOD (Gal Min)**	**Allowable Pumping Rates TSS (Gal Min)**
Quad 3-1 (Mid-Depth)	13	14	17,603	26,569
Quad 3-2 (Interface)	71	1400	3,223	266

Polycyclic Aromatic Hydrocarbon		
PAH	**µg/L (PPB)**	**Sample Depth**
Benzo(a)anthracene	2.7	Interface
Benzo(b)fluoranthene	5.4	Interface
Benzo(k)fluoranthene	1.4	Interface
Benzo(a)pyrene	4.4	Interface
Indeno(1,2,3-cd)pyrene	4.7	Interface
Dibenz(a,h)anthracene	0.78	Interface

Aluminum Results		
Samples	**mg/l**	**Sample Depth**
Quad 3-1	<0.05	Mid-Depth
Quad 3-2	40	Interface

Notes:

* Mid-Depth refers to midway between the surface and supernant interface. This was determined in the field visually a with a sludge judge.

** Interface refered to the depth at which the supernant interface was determined. This was determined in the field visually with a sludge judge.

Quad 4 Sampling Results

Date: 11/18/2013

Produced : MZC

Pumping Rate Determination for Decommission				
Allowable Gallons Day	**Liters Day**	**Allowable LBS Day BOD (Per Permit)**	**Allowable Milligrams Day BOD**	**mg/L Allowable**
7,500,000	28,390,575	2,750	1,247,378,000	44
		Allowable LBS Day TSS (Per Permit)	**Allowable Milligrams Day TSS**	
		4,470.00	2,027,556,240.00	71
Sample	**mg/l BOD**	**mg/l TSS**	**Allowable Pumping Rates BOD (Gal Min)**	**Allowable Pumping Rates TSS (Gal Min)**
Quad 4-1 (Mid-Depth)	11	15	20,803	24,797
Quad 4-2 (Interface)	24	400	9,535	930

Polycyclic Aromatic Hydrocarbon		
PAH	**µg/L (PPB)**	**Sample Depth**
Benzo(a)anthracene	1.9	Interface**
Benzo(b)fluoranthene	3.7	Interface**
Benzo(k)fluoranthene	1	Interface**
Benzo(a)pyrene	2.9	Interface**
Indeno(1,2,3-cd)pyrene	3.3	Interface**
Dibenz(a,h)anthracene	0.54	Interface**

Aluminum Results		
Samples	**mg/l**	Sample Depth
Quad 4-1	<0.05	Mid-Depth*
Quad 4-2	6.5	Interface**

Notes:

* Mid-Depth refers to midway between the surface and supernant interface. This was determined in the field visually a with a sludge judge.

** Interface refered to the depth at which the supernant interface was determined. This was determined in the field visually with a sludge judge.

Clarifer 1 Sampling Results

Date: 11/18/2013

Produced : MZC

Pumping Rate Determination for Decommission				
Allowable Gallons Day	**Liters Day**	**Allowable LBS Day BOD (Per Permit)**	**Allowable Milligrams Day BOD**	**mg/L Allowable**
7,500,000	28,390,575	2,750	1,247,378,000	44
		Allowable LBS Day TSS (Per Permit)	**Allowable Milligrams Day TSS**	
		4,470.00	2,027,556,240.00	71
Sample	**mg/l BOD**	**mg/l TSS**	**Allowable Pumping Rates BOD (Gal Min)**	**Allowable Pumping Rates TSS (Gal Min)**
Clarifier 1-1(Mid-Depth)	42	990	5,448	376
Clarifier 1-2(Interface)	100	3300	2,288	113

Polycyclic Aromatic Hydrocarbon		
PAH	**µg/L (PPB)**	**Sample Depth**
Benzo(a)anthracene	16	Interface**
Chrysene	27	Interface**
Benzo(b)fluoranthene	25	Interface**
Benzo(k)fluoranthene	5.8	Interface**
Benzo(a)pyrene	21	Interface**
Indeno(1,2,3-cd)pyrene	18	Interface**
Dibenz(a,h)anthracene	3.1	Interface**

Aluminum Results		
Samples	**mg/l**	**Sample Depth**
Clarifier 1-1	27	Mid-Depth
Clarifier 1-2	23	Interface

Notes:

* Mid-Depth refers to midway between the surface and supernant interface. This was determined in the field visually a with a sludge judge.

** Interface refered to the depth at which the supernant interface was determined. This was determined in the field visually with a sludge judge.

Clarifer 2 Sampling Results

Date: 11/18/2013

Produced : MZC

Pumping Rate Determination for Decommission				
Allowable Gallons Day	**Liters Day**	**Allowable LBS Day BOD (Per Permit)**	**Allowable Milligrams Day BOD**	**mg/L Allowable**
7,500,000	28,390,575	2,750	1,247,378,000	44
		Allowable LBS Day TSS (Per Permit)	**Allowable Milligrams Day TSS**	
		4,470.00	2,027,556,240.00	71
Sample	**mg/l BOD**	**mg/l TSS**	**Allowable Pumping Rates BOD (Gal Min)**	**Allowable Pumping Rates TSS (Gal Min)**
Clarifier 2-1(Mid-Depth)	1	1	228,835	371,961
Clarifier 2-2 (Interface)	40	990	5,721	376

Polycyclic Aromatic Hydrocarbon		
PAH	**µg/L (PPB)**	**Sample Depth**
Benzo(a)anthracene	1.4	Interface**
Benzo(b)fluoranthene	2.9	Interface**
Benzo(k)fluoranthene	0.8	Interface**
Benzo(a)pyrene	2.1	Interface**
Indeno(1,2,3-cd)pyrene	2.1	Interface**
Dibenz(a,h)anthracene	0.38	Interface**

Aluminum Results		
Samples	**mg/l**	**Sample Depth**
Clarifier 2-1	<0.05	Mid Depth*
Clarifier 2-2	8.6	Interface**

Notes:

* Mid-Depth refers to midway between the surface and supernant interface. This was determined in the field visually a with a sludge judge.

** Interface refered to the depth at which the supernant interface was determined. This was determined in the field visually with a sludge judge.

Clarifer 3 Sampling Results

Date: 11/18/2013

Produced : MZC

Pumping Rate Determination for Decommission				
Allowable Gallons Day	**Liters Day**	**Allowable LBS Day BOD (Per Permit)**	**Allowable Milligrams Day BOD**	**mg/L Allowable**
7,500,000	28,390,575	2,750	1,247,378,000	44
		Allowable LBS Day TSS (Per Permit)	**Allowable Milligrams Day TSS**	
		4,470.00	2,027,556,240.00	71
Sample	**mg/l BOD**	**mg/l TSS**	**Allowable Pumping Rates BOD (Gal Min)**	**Allowable Pumping Rates TSS (Gal Min)**
Clarifier 3-1 (mid depth)	9	45	25,426	8,266
Clarifier 3-2 (interface)	47	750	4,869	496

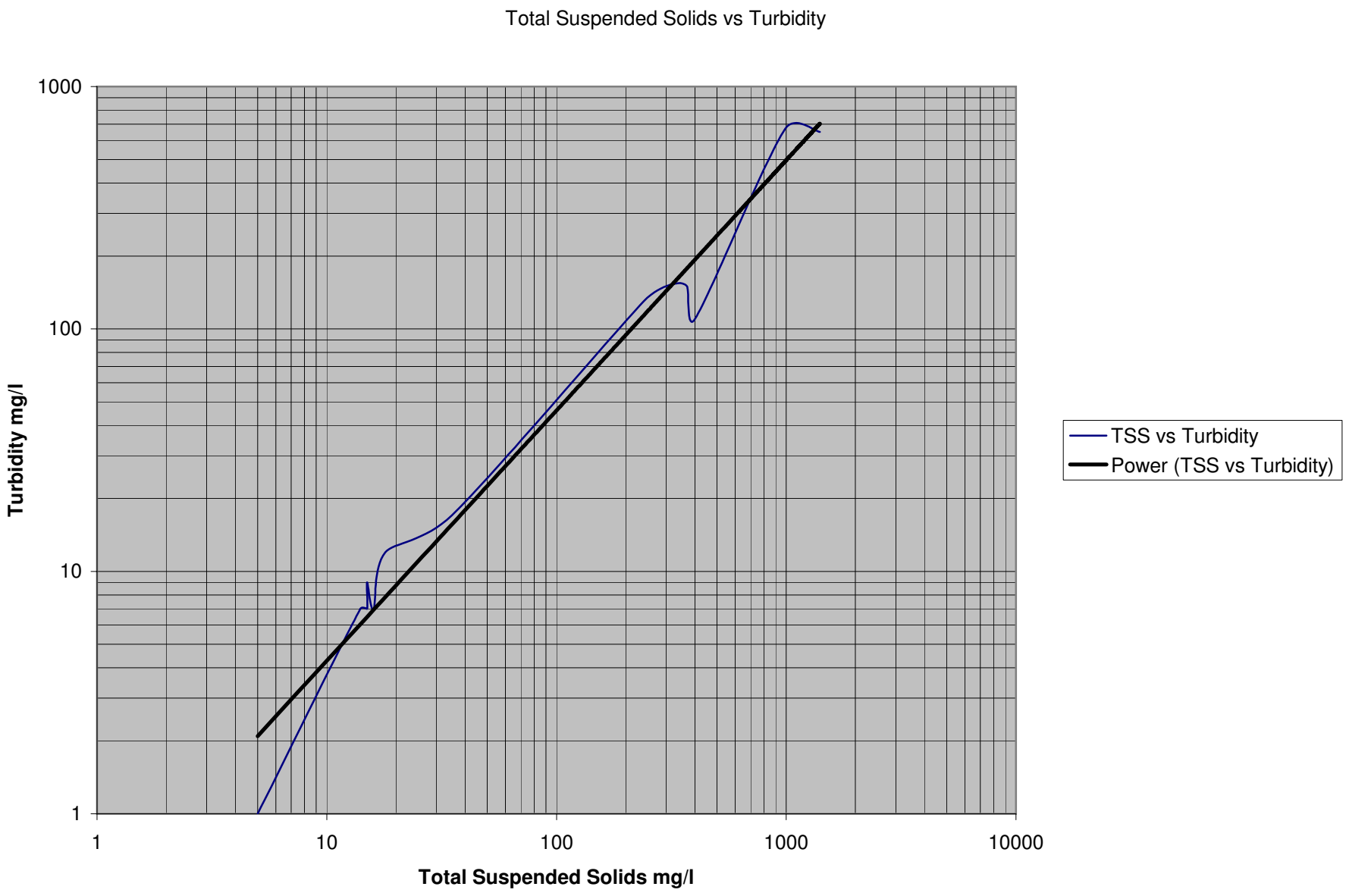
Polycyclic Aromatic Hydrocarbon		
PAH	**µg/L (PPB)**	**Sample Depth**
Benzo(a)anthracene	3.5	Interface**
Chrysene	6.3	Interface**
Benzo(b)fluoranthene	6.1	Interface**
Benzo(k)fluoranthene	1.7	Interface**
Benzo(a)pyrene	4.8	Interface**
Indeno(1,2,3-cd)pyrene	4	Interface**
Dibenz(a,h)anthracene	0.76	Interface**

Aluminum Results		
Samples	**mg/l**	**Sample Depth**
Clarifier 3-1	<0.05	Mid Depth*
Clarifier 3-2	3.8	Interface**

Notes:

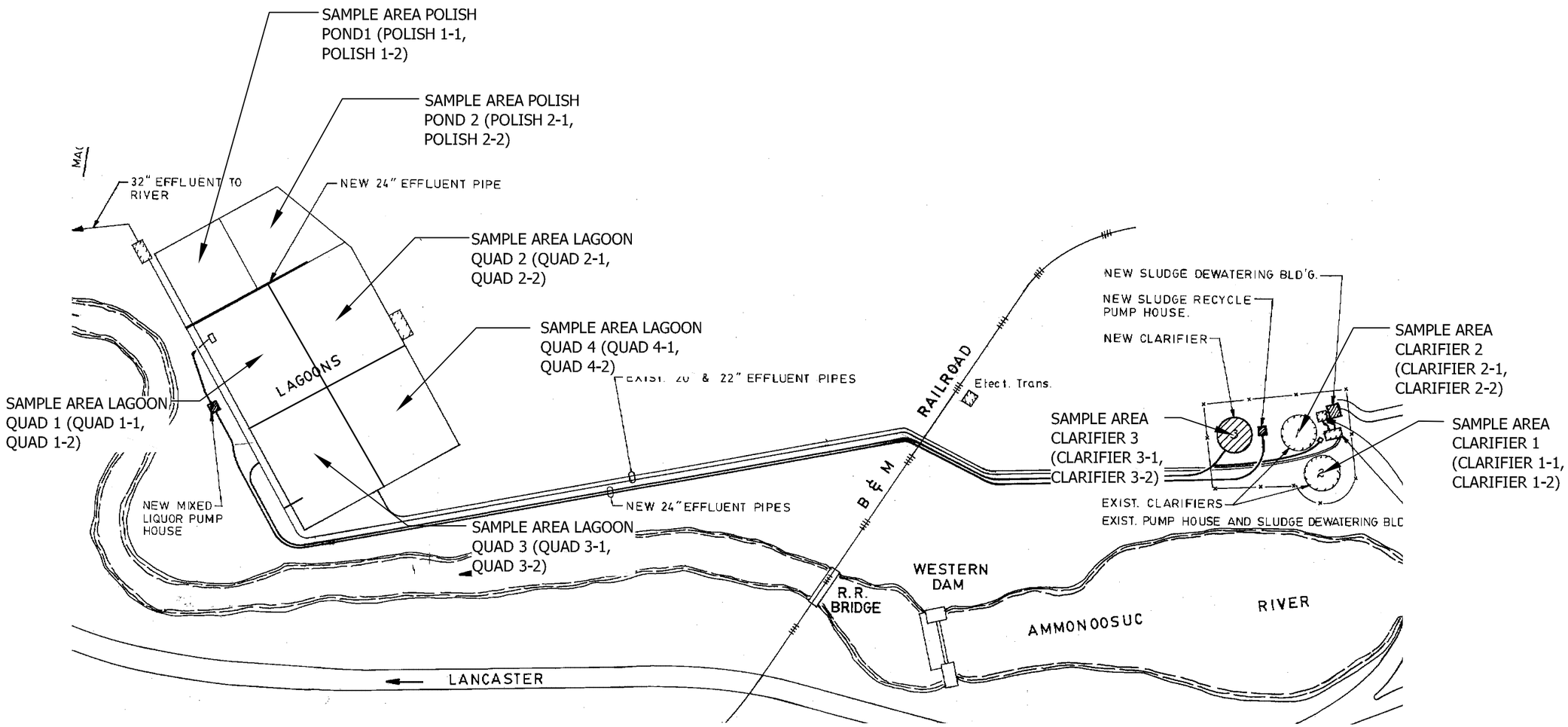
* Mid-Depth refers to midway between the surface and supernant interface. This was determined in the field visually a with a sludge judge.

** Interface refered to the depth at which the supernant interface was determined. This was determined in the field visually with a sludge judge.


Total Suspended Solids vs Turbidity
1000
100
10
1
Turbidity mg/l
1
10
100
1000
10000
Total Suspended Solids mg/l
TSS vs Turbidity
Power (TSS vs Turbidity)

Groveton Wastewater Decommisioning:Table 1

Sample Location	Sludge Depth (ft)	Total Depth (ft)
Polish 1	2.5	6.5
Polish 2	3	7.5
Lagoon Quad 1	1.75	7
Lagoon Quad 2	2	7
Lagoon Quad 3	2	7
Lagoon Quad 4	2	7
Clarifier 1	2	3
Clarifier 2	1	10
Clarifier 3	2	11



NOTES:

1. CLARIFIER 2 IS LABELED CLARIFIER 1 IN SAMPLING RESULTS
2. CLARIFIER 1 IS LABELED CLARIFIER 2 IN SAMPLING RESULTS
3. ORIGINAL PLAN TAKEN FROM PLAN WASTEWATER TREATMENT PLANT UPGRADE CREATED BY E.C. JORDAN CO. CONSULTING ENGINEERS, PORTLAND, MAINE. DATED 1986

NOT TO SCALE

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horizons Engineering Inc.
34 School Street
Littleton, NH 03561
Phone 603.444.4111 - Fax 603.444.1343

GREEN STEEL

GROVETON MILL WASTEWATER TREATMENT FACILITY DECOMMISIONING

GROVETON, NEW HAMPSHIRE

SAMPLING LOCATIONS

PROJECT #:	13087
ENGIN'D BY:	MZC
DRAWN BY:	MZC
DATE:	NOV 2013

Attachment C – December 3, 2014
Laboratory Results

Eastern Analytical, Inc.

professional laboratory & drilling services

PRELIMINARY ANALYTICAL RESULTS ATTACHED

The attached .pdf file contains results that have not been subjected to a final QA/QC review. If you have any questions, please contact us at customerservice@eailabs.com or call 1-800-287-0525.

Updated Permits

We are preparing and delivering auto bottle orders for 2015. If you permit(s) (groundwater management, NPDES, EPA, etc.) have been updated, please forward a copy to us. We will update our project management system to include the revised information ensuring that bottle orders as well as technical specifications accurately reflect your new information.

Please forward your permit to customerservice@eailabs.com or fax to (603) 228-4591. Thank you!

End of the Year Planning

Please call us at 1-800-287-0525 or email customerservice@eailabs.com for a project specific quotation for your end of the year projects or upcoming 2015 budgeting. EAI service reminders…

- Free Courier Services
- Consistent Turnaround Time (*RUSH TAT available*)
- Auto Bottle Orders
- Custom Electronic Data Deliverable Options Available
- Technical Assistance
- Much, Much More!

Holiday Hours

EAI will be closed on the following holidays. Please keep these dates in mind when planning your sample collection schedule especially when parameters with immediate or short hold times are needed.

Thursday, December 25
Friday, December 26

Thursday, January 1
Friday, January 2

Thank you for choosing EAI! We all wish you a safe and happy holiday season!

25 Chenell Drive | Concord, NH 03301 | 800.287.0525 | customerservice@eailabs.com | www.eailabs.com

LABORATORY REPORT

EAI ID#: **138749**

Client: **Stonecipher & Clark Environmental Solutions**

Client Designation: **GL | 2014-062**

Sample ID:	SW-1

Lab Sample ID:	138749.01
Matrix:	aqueous
Date Sampled:	12/3/14
Date Received:	12/4/14
Units:	ug/l
Date of Extraction/Prep:	12/9/14
Date of Analysis:	12/9/14
Analyst:	JMR
Method:	8270D
Dilution Factor:	1

Naphthalene	< 0.1
2-Methylnaphthalene	< 0.1
Acenaphthylene	< 0.1
Acenaphthene	< 0.1
Fluorene	< 0.1
Phenanthrene	< 0.1
Anthracene	< 0.1
Fluoranthene	**0.14**
Pyrene	**0.18**
Benzo[a]anthracene	< 0.1
Chrysene	< 0.1
Benzo[b]fluoranthene	< 0.1
Benzo[k]fluoranthene	< 0.1
Benzo[a]pyrene	< 0.1
Indeno[1,2,3-cd]pyrene	< 0.1
Dibenz[a,h]anthracene	< 0.1
Benzo[g,h,i]perylene	< 0.1
p-Terphenyl-D14 (surr)	**59 %R**

Sample filtered in laboratory prior to PAH analysis per request.

LABORATORY REPORT

EAI ID#: **138749**

Client: **Stonecipher & Clark Environmental Solutions**

Client Designation: **GL | 2014-062**

Sample ID: SW-1

Lab Sample ID: 138749.01
Matrix: aqueous
Date Sampled: 12/3/14
Date Received: 12/4/14

		Analytical Matrix	Units	Date of Analysis	Method	Analyst
Arsenic	< 0.001	AqTot	mg/L	12/5/14	200.8	DS
Barium	**0.012**	AqTot	mg/L	12/5/14	200.8	DS
Cadmium	< 0.001	AqTot	mg/L	12/5/14	200.8	DS
Chromium	< 0.001	AqTot	mg/L	12/5/14	200.8	DS
Lead	< 0.001	AqTot	mg/L	12/5/14	200.8	DS
Mercury	< 0.0001	AqTot	mg/L	12/5/14	200.8	DS
Selenium	< 0.001	AqTot	mg/L	12/5/14	200.8	DS
Silver	< 0.001	AqTot	mg/L	12/5/14	200.8	DS

LABORATORY REPORT

EAI ID#: **138749**

Client: **Stonecipher & Clark Environmental Solutions**

Client Designation: **GL | 2014-062**

Sample ID:	SW-1
Lab Sample ID:	138749.01
Matrix:	aqueous
Date Sampled:	12/3/14
Date Received:	12/4/14
Units:	ug/l
Date of Analysis:	12/5/14
Analyst:	BAM
Method:	8260B
Dilution Factor:	1

Dichlorodifluoromethane	< 5
Chloromethane	**4**
Vinyl chloride	< 2
Bromomethane	< 2
Chloroethane	< 5
Trichlorofluoromethane	< 5
Diethyl Ether	< 5
Acetone	< 10
1,1-Dichloroethene	< 1
tert-Butyl Alcohol (TBA)	< 30
Methylene chloride	< 5
Carbon disulfide	< 5
Methyl-t-butyl ether(MTBE)	< 5
Ethyl-t-butyl ether(ETBE)	< 5
Isopropyl ether(DIPE)	< 5
tert-amyl methyl ether(TAME)	< 5
trans-1,2-Dichloroethene	< 2
1,1-Dichloroethane	< 2
2,2-Dichloropropane	< 2
cis-1,2-Dichloroethene	< 2
2-Butanone(MEK)	< 10
Bromochloromethane	< 2
Tetrahydrofuran(THF)	< 10
Chloroform	< 2
1,1,1-Trichloroethane	< 2
Carbon tetrachloride	< 2
1,1-Dichloropropene	< 2
Benzene	< 1
1,2-Dichloroethane	< 2
Trichloroethene	< 2
1,2-Dichloropropane	< 2
Dibromomethane	< 2
Bromodichloromethane	< 0.5
1,4-Dioxane	< 50
4-Methyl-2-pentanone(MIBK)	< 10
cis-1,3-Dichloropropene	< 2
Toluene	< 1
trans-1,3-Dichloropropene	< 2
1,1,2-Trichloroethane	< 2
2-Hexanone	< 10
Tetrachloroethene	< 2
1,3-Dichloropropane	< 2
Dibromochloromethane	< 2
1,2-Dibromoethane(EDB)	< 2
Chlorobenzene	< 2
1,1,1,2-Tetrachloroethane	< 2
Ethylbenzene	< 1

LABORATORY REPORT

EAI ID#: **138749**

Client: **Stonecipher & Clark Environmental Solutions**

Client Designation: **GL | 2014-062**

Sample ID:	SW-1
Lab Sample ID:	138749.01
Matrix:	aqueous
Date Sampled:	12/3/14
Date Received:	12/4/14
Units:	ug/l
Date of Analysis:	12/5/14
Analyst:	BAM
Method:	8260B
Dilution Factor:	1
mp-Xylene	< 1
o-Xylene	< 1
Styrene	< 1
Bromoform	< 2
IsoPropylbenzene	< 1
Bromobenzene	< 2
1,1,2,2-Tetrachloroethane	< 2
1,2,3-Trichloropropane	< 2
n-Propylbenzene	< 1
2-Chlorotoluene	< 2
4-Chlorotoluene	< 2
1,3,5-Trimethylbenzene	< 1
tert-Butylbenzene	< 1
1,2,4-Trimethylbenzene	< 1
sec-Butylbenzene	< 1
1,3-Dichlorobenzene	< 1
p-Isopropyltoluene	< 1
1,4-Dichlorobenzene	< 1
1,2-Dichlorobenzene	< 1
n-Butylbenzene	< 1
1,2-Dibromo-3-chloropropane	< 2
1,3,5-Trichlorobenzene	< 1
1,2,4-Trichlorobenzene	< 1
Hexachlorobutadiene	< 0.5
Naphthalene	< 5
1,2,3-Trichlorobenzene	< 1
4-Bromofluorobenzene (surr)	**96 %R**
1,2-Dichlorobenzene-d4 (surr)	**100 %R**
Toluene-d8 (surr)	**98 %R**
1,2-Dichloroethane-d4 (surr)	**105 %R**

Carbon disulfide and Tetrahydrofuran(THF) exhibited recovery outside acceptance limits in the Quality Control sample(s). The analyte(s) were not detected in the sample(s).

Deviations from the Report:
SW-1 Parameter: Chloromethane Date of Analysis: 12/10/2014

Attachment D – NHDHR Correspondence

Please mail the completed form and required material to:

New Hampshire Division of Historical Resources
State Historic Preservation Office
Attention: Review & Compliance
19 Pillsbury Street, Concord, NH 03301-3570

RECEIVED
JAN 20 2015

DHR Use Only	
R&C #	6404
Log In Date	1/20/15
Response Date	1/22/15
Sent Date	1/23/15

Request for Project Review by the New Hampshire Division of Historical Resources

☒ This is a new submittal
☐ This is additional information relating to DHR Review & Compliance (R&C) #:

GENERAL PROJECT INFORMATION

Project Title Groveton Wastewater Lagoons

Project Location 10 Mechanic Street

City/Town ~~Groveton~~ Northumberland Tax Map U2 Lot # 991

NH State Plane - Feet Geographic Coordinates: Easting 1024172 Northing 763,754
(See RPR Instructions and R&C FAQs for guidance.)

Lead Federal Agency and Contact *(if applicable)* Environmental Protection Agency
(Agency providing funds, licenses, or permits)
Permit Type and Permit or Job Reference # RGP Notice of Intent

State Agency and Contact *(if applicable)*

Permit Type and Permit or Job Reference #

APPLICANT INFORMATION

Applicant Name Bob Chapman

Mailing Address PO Box 64 Phone Number 603-466-9966

City Milan State NH Zip 03588 Email chapmanscrap@yahoo.com

CONTACT PERSON TO RECEIVE RESPONSE

Name/Company Stonecipher & Clark Environmental Solutions, LLC (Attn: Sylvia Clark)

Mailing Address 111 Saranac Street, Studio 8 Phone Number 603-575-5154

City Littleton State NH Zip 03561 Email sclark@stonecipherandclark.com

This form is updated periodically. Please download the current form at www.nh.gov/nhdhr/review. *Please refer to the Request for Project Review Instructions for direction on completing this form.* Submit one copy of this project review form for each project for which review is requested. Include a self-addressed stamped envelope to expedite review response. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, additional information will be needed to complete the Section 106 review. All items and supporting documentation submitted with a review request, including photographs and publications, will be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process and the DHR's role in it, please visit our website at: www.nh.gov/nhdhr/review or contact the R&C Specialist at christina.st.louis@dcr.nh.gov or 603.271.3558.

PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION

Project Boundaries and Description

- ☒ Attach the relevant portion of a 7.5' USGS Map (photocopied or computer-generated) ***indicating the defined project boundary.*** *(See RPR Instructions and R&C FAQs for guidance.)*
- ☒ Attach a detailed narrative description of the proposed project.
- ☒ Attach a site plan. The site plan should include the project boundaries and areas of proposed excavation.
- ☒ Attach photos of the project area (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) *(Informative photo captions are requested.)*
- ☐ A DHR file review must be conducted to identify properties within or adjacent to the project area. Provide file review results in **Table 1**. *(Blank table forms are available on the DHR website.)* File review conducted on / / .

Architecture

Are there any buildings, structures (bridges, walls, culverts, etc.) objects, districts or landscapes within the project area? ☒ Yes ☐ No
If no, skip to Archaeology section. If yes, submit all of the following information:

Approximate age(s): 30

- ☒ Photographs of ***each*** resource or streetscape located within the project area, with captions, along with a mapped photo key. (Digital photographs are accepted. All photographs must be clear, crisp and focused.)
- ☐ If the project involves rehabilitation, demolition, additions, or alterations to existing buildings or structures, provide additional photographs showing detailed project work locations. (i.e. Detail photo of windows if window replacement is proposed.)

Archaeology

Does the proposed undertaking involve ground-disturbing activity? ☐ Yes ☒ No
If yes, submit all of the following information:

- ☐ Description of current and previous land use and disturbances.
- ☐ Available information concerning known or suspected archaeological resources within the project area (such as cellar holes, wells, foundations, dams, etc.)

Please note that for many projects an architectural and/or archaeological survey or other additional information may be needed to complete the Section 106 process.

DHR Comment/Finding Recommendation *This Space for Division of Historical Resources Use Only*

☐ Insufficient information to initiate review. ☐ Additional information is needed in order to complete review.

☐ No Potential to cause Effects ☑ No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect

Comments:

If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation.

Authorized Signature: Richard Boisvert DSHPO Date: 1-22-15

Attachment E – US FWS Correspondence

To be forwarded…