TETRA TECH

August 16, 2018

Mr. Jason Pelton
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, 12th Floor
625 Broadway
Albany, New York 12233-7015

Reference: CLEAN Contract No. N62470-16-D-9008
Contract Task Order WE16

Subject: August 2018 Construction Oversight Project Summary Report
Arthur Avenue Basin (#495) Rehabilitation Project
GM38 Area Hotspot Treatment System
Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage, New York

Dear Mr. Pelton:

On behalf of the Department of the Navy, Tetra Tech is submitting an electronic copy of the subject document to the New York State Department of Environmental Conservation (NYSDEC) for information. This report provides an overview of work conducted from January to March 2018 to rehabilitate the GM38 Basin.

If you have any questions or would like a paper copy of the document, please contact Mr. Brian Murray, NAVFAC Mid-Atlantic, at brian.s.murray@navy.mil or (757) 341-0491.

Sincerely

David D. Brayack, P.E.
Project Manager

Enclosure: August 2018 Construction Oversight Project Summary Report, Arthur Avenue Basin (#495) Rehabilitation Project, GM38 Area Hotspot Treatment System, Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage, New York

Distribution:
NYSDEC, Don Hesler
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Project File

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August 2018
Construction Oversight Project Summary Report
Arthur Avenue Basin (#495) Rehabilitation Project
GM38 Area Hotspot Treatment System
NWIRP Bethpage, New York

Introduction

This Construction Oversight Project Summary Report provides an overview of the work conducted from January to March 2018 to rehabilitate the GM38 Area Hotspot - Arthur Avenue Storm Water Basin Number 495 (GM38 Basin), Hamlet of Bethpage, Town of Oyster Bay, New York (Figures 1-1 and 1-2). This report presents the following:

- Project Background and Objectives
- GM38 Basin Pre-Construction Activities
- GM38 Basin Construction Activities
- Field Inspections
- Post-Construction GM38 Basin Re-filling
- Post-Construction Evaluation

This report was prepared by was prepared by Tetra Tech for the United States Department of the Navy (Navy), Naval Facilities Engineering Command (NAVFAC), Mid-Atlantic, under Contract Number N62470-16-D-9008, Contract Task Order WE16.

Project Background and Objectives

Background

The Navy operates the GM38 Area Hotspot Groundwater Treatment System (GM38 Treatment System) in the Hamlet of Bethpage, Town of Oyster Bay, New York to remediate an area of solvent-impacted groundwater. The Treatment System started operation in September 2009 and extracts, treats, and discharges approximately 1.4 million gallons of water per day. Treated water from this system is re-introduced to the local aquifer via discharge and infiltration in the GM38 Basin.

Since September 2009, approximately 3.8 billion gallons of treated water has been discharged to the GM38 Basin on a near continuous basis. Periodically, the GM38 Treatment System is shut down for maintenance, such as replacing the liquid or vapor phase granular activated carbon, which involve 3 to 4 days of down time. In addition, the Treatment System may be shut down during projected severe weather events, or it may shutdown automatically during significant precipitation events (e.g., greater than 2 inches of rain in one hour). Monthly monitoring of the treated water has demonstrated compliance with the State Pollutant Discharge Elimination System (SPDES)

equivalency permit, which is based on meeting drinking water standard – maximum contaminant levels for volatile organic compounds.

Prior to the start of the GM38 Treatment System in 2009, the GM38 Basin was generally dry. Since the startup of operations at the GM38 Treatment System, the basin appears to hold water throughout its length and width. Water levels in the basin remain approximately 15 to 20 feet below the surrounding ground surface and street elevation. During operation of the GM38 Treatment System, the water level was approximately 3 to 5 feet deep throughout the basin, and 4 to 6 feet deep near the Broadway outfall. The water was very clear when observed in October 2016 and relatively cold (mid 50's F), consistent with the temperature of groundwater.

As part of this evaluation, the GM38 Area Hot Spot Treatment System was shut down from October 17, 2016 to October 20, 2016. The water level dropped approximately four feet during this period.

A 2016 aerial photograph of the recharge basin showing existing conditions is presented in Figure 1-3. In October 2016, the Navy conducted a detailed evaluation of the GM38 Basin and made the following observations:

- Plastic trash was noted throughout the basin.
- Some dead wood (standing or laying) was present.
- There was no evidence of significant erosion of the sidewalls.
- Standing water was noted throughout the basin.
- Except for near the two basin inlets (outfalls), one to the north (Arthur Avenue) and one to the east (Broadway/Treatment System discharge), the bottom of the basin is relatively clear of fine grained or organic material. A total of 4 to 8 inches of fine-grained and/or organic material buildup was noted in close proximity to the basin outfalls.

Objectives

The ability for water to infiltrate the floor and sides of a basin is in part based on the accumulation of fine-grained materials on and near the surface. These materials can consist primarily of natural vegetation in and near the basin and fine-grained material (road dust) from the surface water drainage area. The objective of this project was to assess the ability for the basin to continue to accept GM38 Treatment Plant discharge and determine if rehabilitation (i.e., near surface scrapping/excavation) was needed.

To evaluate potential effects of the fine-grained material on infiltration, the water level in a nearby water table piezometer was compared to the water level in the GM38 basin. This comparison indicated that there was a relatively small difference in elevation between the water level in the GM38 Basin (77.7 feet mean sea level [MSL]) and the Basin Piezometer A-7a (77.4 feet MSL), which suggests that there is currently little

interference from fine-grained or organic materials in the basin sediments that would inhibit infiltration.

In 2016, groundwater in the area was elevated by approximately 23 to 29 feet, with the mounding likely resulting from the presence of a natural layer of fine-grained material at a depth of approximately 35 to 40 feet below ground surface (from the top of bank). Because the water level does not continue to rise over time (e.g., 1.4 feet per day due to the GM38 Treatment System discharge), the subsurface soil beneath the basin is able to effectively accommodate the increased volume of infiltrating treated groundwater, although with a localized mounding of the water table. Because of this deep fine-grained material at depth, there was a concern that scrapping/excavation of the basin may not significantly decrease standing water in the basin or allow increased infiltration.

GM38 Basin Pre-Construction Activities

Pre-Construction Rodent Inspection

As per Nassau County requirements for demolition projects that require pre-construction inspections for rodent activity, a local firm was used to install, monitor, and maintain rodent bait boxes. Based on the results of inspections of these boxes, a Rodent Free Certificate was obtained from Nassau County (Appendix A). During construction, the boxes were maintained and inspected. During the pre-construction and construction phases, there was no evidence of rat activity.

Soil Boring Test Data

As per the request of the Town of Oyster Bay, two soil borings were installed in the basin. Detailed information is presented in Appendix B and summarized as follows:

- Due to the presence of ice in the bottom of the basin on January 19, 2018, the two borings were installed along the northern top of the bank of the basin, instead of the basin floor as originally anticipated. To account for the difference in elevation between the top and bottom of the basin, the borings were installed to a depth of 40 feet, as opposed to the 15 feet originally requested.
- Evaluation of the extracted cores indicate that the soils are predominately sand and gravel throughout most of the boring. At a depth of approximately 38 feet below the top of bank, (equivalent to approximately 20 below the bottom of the basin), a clay with some silt was observed. The clay would inhibit downward migration of water.

GM38 Basin Construction Activities

Schedule

The project schedule is summarized as follows:

- GM38 Treatment System discharge to the basin ended: January 11, 2018
- Construction start date: January 19, 2018
- Construction completion date: March 5, 2018
- Final Site Walk Inspection: March 6, 2018
- GM38 Treatment System flow to the basin restarted: March 9, 2018 (350 gallons per minute), March 12, 2018 (700 gallons per minute), and March 15, 2018 (1,000 gallons per minute)
- During construction, basin continued to be used for storm water management

Contractor Information:
Contractors conducting the construction activities are as follows:

- Coastal Environmental Group (Coastal), East Patchogue, New York
- Rayco Restoration and Construction Corp (Rayco), James, New York

Work Completed
Work Activities completed during construction are as follows:

- Access Ramp Construction
- Clearing, Grubbing and Offsite Disposal of Wooded Materials
- Trash Removal and Offsite Disposal
- Excavation of Deleterious (organic and fined-grained) Materials at Arthur Avenue Outfall.
- Excavation of Deleterious Materials at Broadway Avenue Outfall
- Clearing of Sludge Material at Broadway Avenue Outfall
- Excavation of Deleterious (organic and fine-grained) Materials at Remainder of Basin
- Excavation was conducted via mechanical scraping and consolidation of material into piles for dewatering.
- Offsite Disposal of Materials
- Rip Rap Placement at Broadway Outfall
- Restoration of Fill Material Over Underground Electric Lines
- Installation of Staff Gauge in Southwest Corner of Basin
- Final Site Clean-Up and Demobilization of Equipment

Sampling of Basin Sediments
Seven samples of sediment were collected from the floor of the basin by Coastal and analyzed by American Analytical Laboratories, Farmingdale, NY. The samples were analyzed for the following parameters:

- Volatile Organic Compounds
- Semi-Volatile Organic Compounds

- Pesticides/Herbicides
- Polychlorinated Biphenyls (PCBs)
- Total Metals (including mercury, trivalent and hexavalent chromium)
- Total Cyanide
- Percent Moisture

Samples results were compared to New York State Department of Environmental Conservation (DEC) Division of Environmental Remediation (DER) beneficial use criteria and found to be compliant (Appendix C).

The excavated basin materials were transported off-site by Rayco to Belli Topsoil and Landscape Supplies (Belli). Belli then blends and/or recycles these materials into compost, and/or topsoil to be purchased and used for residential and commercial beneficial use.

Summary Transported Material /Volume

Date	Load Ticket No.	Material Type	Amount (Cubic Yards)
1/19/18	56711	Wood	40
1/26/18	56754	Wood	20
1/26/18	56747	Wood	30
2/19/2018	56867	Soil	30
2/19/2018	56866	Soil	20
2/19/2018	56868	Soil	20
2/19/2018	56870	Soil	20
2/19/2018	56869	Soil	20
2/19/2018	56519	Soil	20
2/19/2018	56871	Soil	20
2/19/2018	56882	Soil	30
2/20/2018	56520	Soil	20

Based on the off-site materials disposal documentation, 90 cubic yards of wooded materials (i.e., trees, branches, brush, shrubs, etc.) and 200 cubic yards of excavated basin material were transported off site by Rayco. In addition, 4.1 tons of trash (i.e., various plastic materials; bottles, lawn furniture, toys, bags, and other materials: glass, paper products, etc.) recovered from the basin were sent to Winters Bros, Kings Park, NY.

Backfill Materials

A total of 10.33 tons of certified, clean stone (rip/rap) was transported to the site from Tilcon New York Inc., Parsippany, NJ. The stone was placed at the Broadway and Arthur Avenue Outfall locations.

Field Inspections

Tetra Tech conducted field construction oversight visits on February 19/20, 2018 and March 8, 2018. The trip reports are presented in Appendix D, and summarized as follow:

February 19, 2018 Field Inspection Summary

During the February 19, 2018 field inspection, visual observations verified that Rayco was conducting work in accordance with the Coastal Work Plan (December, 2017). Tetra Tech personnel observed Rayco employees adhering to proper Health and Safety protocols and donning the required Level D personal protective equipment. Construction vehicles entering and exiting the site did so in accordance with the Coastal Traffic Control Plan. A field sketch depicting the approximated locations of excavation boundaries, test pit and stock piled soil locations is provided in Appendix D.

March 8, 2018 Field Inspection Summary

During the March 8, 2018 field inspection, visual observations confirmed excavated stockpiled soil deposited near the Broadway Outfall were removed (Appendix D). The access ramp appeared to be properly sloped and graded, and was free brush and wooded materials. The basin excavation was completed, and the basin walls and floors were cleared of deleterious material deposits, trash, and wooded materials. See attached photo logs 03062018 and 03092018.

Post Construction GM38 Basin Re-filling

System Start Up Monitoring:

Monitoring conducted during the startup of the GM-38 system start consisted of the following tasks:

- March 9, 2018 - Restart operation at GM38 Treatment System with discharge to the GM38 Basin at 350 gallons per minute, record water level after 3 days
- March 12, 2018 – Increase flow to GM38 Basin to 700 gallons per minute, record water level after 2 and 3 days
- March 15, 2018 – Increase flow at GM38 Basin to 1,000 gallons per minute, record water level after 8 days
- Additional water level measurements were recorded through June 2018.

-

Water Level Measurements

Date	Staff Gauge Reading (feet)[1]	Comments
03/08/2018	Approx. 0.6	Pre-system startup, after a storm event.
03/12/2018	0.8	Three days after start at 350 gallons per minute.
03/14/2018	2.2	Two days after start at 700 gallons per minute.
03/15/2018	2.3	Three days after start at 700 gallons per minute.
03/19/2018	2.9	Four days after start at 1000 gallons per minute.
03/23/2018	2.9	Eight days after start at 1000 gallons per minute.
05/08/2018	4.2	Two months after start at 1000 gallons per minute.
06/12/2018	3.9	Three months after start at 1000 gallons per minute.

1. Survey of staff gauge is pending. Survey data of the invert on the eastern culvert is 71.1 feet. The culvert is 42 inches in diameter.

Post-Construction Evaluation

Tetra Tech conducted a post-construction evaluation based on the final documentation provided by the contractor for comparison to the Coastal Work Plan. The evaluation is summarized below.

Estimated Materials to be Excavated Versus Actual Materials Transported Offsite

Based on the provided off-site materials disposal load tickets, 200 cubic yards of excavated basin bank and bottom soil were transported off-site by Rayco during the basin restoration operations. Using a common soil conversion factor (i.e., 1.5 tons per cubic yard), Tetra Tech estimates that approximately 300 tons of excavated basin bank and bottom soil were transported off-site to Belli for beneficial reuse as indicated above. The expected volume of excavated basin materials was 2,000 tons. Based on a review of the records, it was concluded that reduction in excavated material for off site disposal results from less fine-grained material being present than anticipated and that some of the excavated soil was reused for construction of the basin access road and sidewalls, as discussed below.

Access Road and Road Bank Construction

Some of the excavated basin soil was reused to construct and stabilize the basin access road and the western bank. During access road construction, excavated basin soil and recycled crushed concrete aggregate (RCA) were blended and used to complete final access road. Documentation was not provided on the quantity of soil or RCA material that was used to stabilize the access road or the quantity of soil spread across western access road bank.

The final site walk (March 6, 2018) indicated all work was completed satisfactorily and no other outstanding issues were noted. The final field inspection (March 7, 2018) indicated the access ramp appeared to be properly sloped and graded, and was free of brush and wooded materials.

Southeastern Basin Corner Restoration

Some of the excavated basin soil was reused to restore the southeastern basin corner which had been eroded. The excavated basin materials were blended with the existing soils during reconstruction activities. Documentation was not provided on the quantity of excavated soil used to reconstruct the southeastern basin bank.

PHOTO LOG 03062018)
Completed Basin Work
(East View)

PHOTO LOG 03092018
Basin Depicting Site Conditions and Water Accumulation in Northern Section 1 Hour After GM-38 Start Up - East View

Bing Maps aerial:
Aerial photograph from ESRI Bing Maps map service
(© 2010 Microsoft Corporation and its data suppliers).

GENERAL LOCATION MAP
NWIRP BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	1-1	REV	DATE 2/7/14

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N

NORTHROP GRUMMAN

Norcross Ave

Plainview Rd

Seaman Ave

Stymus Ave

Laurel Pl

GM-37D2

GM-71D2

GM-70D2

Broadway

MW-116-5

VPB-42

GM-36D

GM-36D2

MW-117-5

BWD 4-1

BWD 4-2

GM-38D2

GM-38D

VPB-51

GM-38RW03

N-10814

GM-38 RW2-MW2

GM38 AREA HOTSPOT TREATMENT SYSTEM

GM-38RW02

VPB-48

VPB-38

BWD 6-2

BWD 6-1

GM-38RW01

Miller Rd

GM-38 RW1-MW1

MW-118-5

ARTHUR AVENUE BASIN

VPB-47

VPB-40

BWD 5-1

N-9929

VPB-77

Bethpage State Pkwy

Hempstead Tpke

BPOW 01-04

BPOW 01-05

BPOW 01-06

Union Ave

Hicksville Rd

State Hwy 135

Boundary Ave

MONITORING WELL (used for potentiometric surface readings collected during pumping test)

OTHER MONITORING WELL

WATER SUPPLY WELL

RECOVERY WELL

VERTICAL PROFILE BORING

GM-38 AREA GROUNDWATER USE

0 500 1,000 2,000 Feet

GM-38 AREA
PUMPING TEST MONITORING WELLS
NWIRP BETHPAGE, NEW YORK

FILE	112G00622	SCALE	AS NOTED
FIGURE NO.	1-2	REV	DATE 1/16/14

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Aerial Imagery from 2016
http://www.orthos.dhses.ny.gov/arcgis/service

Legend

- 2014 Lidar Elevations (NOAA) (feet msl)
- Streets
- Outfall
- Fenceline
- Top of Basin
- Bottom of Basin
- Access Road

0 25 50 100 Feet

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NAVFAC Naval Facilities Engineering Command

EXISTING CONDITIONS
GM-38 AREA HOTSPOT
NWIRP BETHPAGE, NEW YORK

FILE	112G08008-WE09	SCALE	AS NOTED
FIGURE NO.	1-3	REV	DATE 7/5/2017

Stewart Avenue
~ 130 ft

Leroy Ave

Arthur Ave

N

Piezometer
A-7a

Access Gate

Arthur Ave.
Outfall

GM-38/Broadway Ave.
Outfall

Access Road

484 ft

Area To Be Determined

Flush/Clear sludge
accumulation within
sewer line

Scrape 4-8" from the basin
and dispose offsite (2,000 tons)

-Remove 12-18" of fine
grained and organic material
-Replace with 10 tons of
Rip Rap

30 ft

24 ft

150 ft

Clear vegetation and
stabilize access road with RCA

Bottom Elevation
~ 71 ft

Broadway Avenue
~ 155 ft

145 ft

Restore cover over
Electric Line

Underground Line
is approximate

476 ft

90
85
80
75

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Legend

- Streets
- Outfall
- Electric Line
- 2014 Lidar Elevations (NOAA) (feet msl)
- Rip Rap Area
- Fenceline
- Top of Basin
- Bottom of Basin
- Access Road
- Street

0 25 50 100 Feet

NAVFAC
Naval Facilities Engineering Command

PROPOSED ACTIONS
RE-108 HOTSPOT
NWIRP BETHPAGE, NEW YORK

FILE	112G08008-WE09	SCALE	AS NOTED
FIGURE NO.	1-4	REV	DATE 7/31/2017

Appendix A
Rodent Free Certificate

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NASSAU COUNTY DEPARTMENT OF HEALTH

Office of Community Sanitation

200 County Seat Drive, Mineola, New York 11501

OFFICE: 516-227-9715

Nassau County Public Health Ordinance, Article VII, Section 13

RODENT FREE CERTIFICATION BEFORE DEMOLITION

A REPRESENTATIVE OF THE NASSAU COUNTY DEPARTMENT OF HEALTH CONDUCTED A VISUAL INSPECTION TO DETERMINE THE STATUS OF RODENT ACTIVITY AT THE FOLLOWING PREMISES:

NC Basin 495

PROPERTY ADDRESS: Corner of Arthur Ave & Stewart Ave Bethpage

Section: 49 **Block:** C **Lot:** 302

The Nassau County Department of Health certifies <u>NO RODENT ACTIVITY</u> was observed on the premises on the date of inspection. This rodent free certificate issued by the Nassau County Department of Health for this premises is valid for ten (10) calendar days from the listed inspection date.

NCDOH SANITARIAN: [signature]

Date of Extermination

DATE OF INSPECTION: Letter: Jan. 11, 2018

CERTIFICATE VALID UNTIL: Jan. 26, 2018

NASSAU COUNTY DEPARTMENT OF HEALTH
JAN 16 2018
OFFICE OF COMMUNITY SANITATION

- THIS CERTIFICATE IS VALID ONLY WHEN SIGNED AND STAMPED BY A REPRESENTATIVE OF THE NASSAU COUNTY DEPARTMENT OF HEALTH.
- THIS COMPLETED RODENT FREE CERTIFICATE MUST BE PRESENTED TO THE LOCAL BUILDING DEPARTMENT TO OBTAIN A DEMOLITION PERMIT FOR THESE PREMISES.
- DEMOLITION OF THE PREMISES SHALL BE COMPLETED WITHIN TEN (10) CALENDAR DAYS FROM ISSUANCE OF THIS CERTIFICATE. OTHERWISE A NEW CERTIFICATE FOR DEMOLITION OF THIS PREMISES MUST BE OBTAINED FROM THE NASSAU COUNTY DEPARTMENT OF HEALTH.

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Appendix B
Soil Boring Data

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Appendix B – Soil Borings in the GM-38 Recharge Basin
NWIRP Bethpage, New York

Introduction and Current Conditions

Tetra Tech, Inc. (Tetra Tech) and the drilling subcontractor Cascade Technical Services (Cascade) installed two soil borings on January 19, 2018 in the Town of Oyster Bay (Nassau County No. 495) storm water recharge basin. This basin is also used by the Navy for infiltration of treated groundwater from the GM38 Area Hotspot Groundwater Treatment System (Treatment System). This basin is located near the intersection of Arthur Avenue and Stewart Avenue in the Hamlet of Bethpage, New York. Soil boring log sheets are provided in Attachment A-1 and a photo log is provided in Attachment A-2. This work was conducted in response to a request from the Town to support ongoing operations in this basin.

Treatment System discharge into the Basin ended on January 11, 2018 and the basin was allowed to dewater naturally. Upon arrival at the basin on January 19, 2018, the basin was found to contain several inches of ice and water, which made it unsafe to drill in the basin. Since the rig was available for only that day, the borings were moved to the top of the basin. The basin is approximately 20 feet deep, and therefore, the borings were installed to a depth of approximately 40 feet to address the Town's request of 15-foot deep borings (from the bottom of the basin).

Before drilling operations commenced the underground utilities were marked out around the relocated soil borings. An electric line was found to run parallel to and just south of the northern fence line. Storm water sewers were also identified and avoided.

Soil Borings

A Geoprobe 6620DT drill rig was operated by Cascade while drilling operations and soil cores were detailed by Tetra Tech. Two soil borings, BP-GM38Basin-SB01 and BP-GM38Basin-SB02, were spaced approximately 150 feet apart along northern edge of the basin. The first five to seven feet of each soil boring was hand augured to confirm the absence of utilities. Continuous macrocores were then collected from 5 (or 7) feet to 40 feet below ground surface (bgs) at both locations. Boring logs detailing the soil cores are presented in Attachment A-2. A macrocore is 2 inches in diameter by 5 feet long and the soil samples are collected within acetate liners as the boring is advanced.

The soils were screened visually and with a photoionization detector for signs of contamination and were lithologically logged. There was no evidence of contamination. The soils were predominately sand and gravel to 20 feet bgs, fine- to medium-grained sand from 20 to 32 feet bgs, silty fine-grained sand from 32 to 38 feet bgs, and clay with some silt from 38 to 40 feet bgs. The presence of pebbles and gravel resulted in reduced recoveries in a few of the macrocores. Sloughed debris (i.e., soil and gravel) was noted in several borings. This debris results from boring sidewall collapse of the overlying formation and/or material lost from previous the macrocore. The water table was encountered at approximately 23 feet, which is approximately the depth of the bottom of the basin.

The boreholes were backfilled with their respective soil cores from 0 to 25 feet and topped off with #1 silica sand. The soil cores from 25 to 40 feet were wrapped in clear wrap and kept onsite for future reference.

Attachment A-1

Soil Boring Log Sheets

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BORING LOG

PROJECT NAME: NWIRP Bethpage GM-38 Basin
PROJECT NUMBER: 112G08005-WE16
DRILLING COMPANY: Cascade (Lynnbrook, NY office)
DRILLING RIG: Geoprobe 6620DT
BORING No.: BP-GM38Basin-SB01
DATE: 1/19 /2018
GEOLOGIST: J. Birkett
DRILLER: Q Brandt

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	S-1	1		60 /60		—	brn	Sand/gravel sm-large angular tr. to some silt	SP/GP	moist, gravel 1"ϕ	0	0	0	0
						↓	↓	↓ ↓		Hand clear w/ hand auger				
										moist	0			
						—	light brn	Silty F sand some M sand pebbles	SM/SP					
1000		5				M. stiff	tan/gray	VF Sandy Silt tr. clay	MH	moist to wet	0			
	S-2	6		160		—	light brn	F-C sand and sm-med pebbles round	SW	moist	0	0	0	0
1005						↓	↓	↓ ↓		Put top 7' back down				
				36/36			tan			hole and drill through	0			
										liner partially smashed				
		10				↓	↓	↓ ↓			0			
1035	S-3	11		40 /60		M. dense	tan	F-M sand tr. to some C. sand and sm-med pebbles round	SP	pebbles up to 0.5"ϕ	0	0	0	0
						↓	↓	↓ ↓						
										moist	0			
		15									0			
1042	S-4	16		31/60		↓	↓	↓ ↓		moist	0	0	0	0
						M. dense	light brn	F-M sand tr. C sand, sm. pebbles and silt	SP					
						.	tan				0			
						M. dense	↓	F-M sand tr. to some	SP	moist				
		20				↓	↓	C. sand and sm. to med pebbles tr. large pebbles		large shattered quartz	0			
1050	S-5	21		38/60		M. dense	light brn	F-M sand and sm-med pebbles	SW	moist	0	0	0	0
						↓		some C. sand tr. silt and large pebbles	GW	6" of slough				
										moist	0			
					▽	M. dense	tan	F-M sand tr. C. sand	SP	round pebbles up to 1"ϕ				
						M. dense	light brn	M-C sand and some pebbles	SW					
		25				M. dense	light brn/tan	F-M sand tr. C. sand	SP	wet	0			

Time: 1000, 1005, 1035, 1042, 1050

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response is obtained

Drilling Area Background (ppm): 0.0

Remarks: Hand auger to 7' bgs
Continuous macrocore 2"×5' from 7' to 40' bgs

Converted to Well: Yes ____ No X Well I.D. #: NA

Location at top of basin (~25' up), ~1-2 feet of water and ice in basin

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BORING LOG

PROJECT NAME: NWIRP Bethpage GM-38 Basin
PROJECT NUMBER: 112G08005-WE16
DRILLING COMPANY: Cascade (Lynnbrook, NY office)
DRILLING RIG: Geoprobe 6620DT
BORING No.: BP-GM38Basin-SB01
DATE: 1/19/2018
GEOLOGIST: J. Birkett
DRILLER: Q. Brandt

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1101	S-1	2 to 4		46/60		m. dense	light brn to tan	F-M sand tr. C. sand	SP	wet	0	0	0	0
						m. dense/dense	light brn to tan	F-C sand and pebbles	SW/GW	18" of slough				
						↓	↓	↓ ↓		wet	0			
						m. dense	light brn	F-M sand tr. C. sand	SP					
		30 to 32						and sm. pebbles micaceous		wet	0			
1115	S-2	31 to 33		60/60		dense	light brn	F sand some M. sand	SP	30" of slough	0	0	0	0
								very little C. sand		wet				
						dense	light brn	Silty VF sand	SP/SM		0			
						dense	light brn	VF-F sand some silt	SP					
		35 to 40				↓	↓	↓ ↓		wet	0			
1130	S-3	36 to 38		60/60		dense	light brn	F sand some M. sand	SP	20" of slough	0	0	0	0
						↓	↓	↓ ↓ tr. silt						
						m. dense	light brn	Silty VF sand to. clay	SP/SM	wet	0			
						M. Stiff	light brn	Clay some silt very little VF sand	CH					
		40 to 45				↓	↓	↓ ↓		wet	0			
	S-4	41			EOB 40' bgs									
		45												
					EOB 45' bgs									

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response is obtained

Drilling Area Background (ppm): 0.0

Remarks: See first page

Converted to Well: Yes ____ No X Well I.D. #: NA

TETRA TECH

BORING LOG

PROJECT NAME: NWIRP Bethpage GM-38 Basin
PROJECT NUMBER: 112G08005-WE16
DRILLING COMPANY: Cascade (Lynnbrook, NY office)
DRILLING RIG: Geoprobe 6620DT
BORING No.: BP-GM38Basin-SB02
DATE: 1/19/2018
GEOLOGIST: J. Birkett
DRILLER: O Brandt

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	S-1	1		60/60		—	brn	Sand and gravel tr silt	SW/GW	Moist	0	0	0	0
											0			
1235		5									0			
	S-2	6		20/60		m.dense	tan	F-C sand and round gravel	SW	<1" ϕ	0	0	0	0
						m.dense	light brn	F-C sand some pebbles and silt	SW					
						↓	↓	↓ ↓		Moist	0			
						m.dense	gray/brn	Silty F sand some gravel	SP/SM					
1243		10				m.dense	gray/brn	Silty VF sand some C. sand	SP/SM	moist	0			
	S-3	11		60/60		m.dense	gray	Silty VF sand tr. C. sand	SP/SM	23" of slough	0	0	0	0
						↓	↓	↓ ↓		moist				
											0			
						m.dense	tan/lt brn	F-M sand tr. to some C. sand and pebbles round	SP	moist				
		15				↓					0			
1249	S-4	16		39/60		m.dense	gray/brn	Silty VF sand	SP/SM	moist	0	0	0	0
						m.dense	brn	F-C sand and round gravel tr silt	SW/GW					
						m.dense	light brn	F-C sand and sm round gravel	SW/GW	moist	0			
						m.dense	tan	F-M sand tr. C sand	SP					
						m.dense	light brn	F-C sand and sm round gravel	SW/GW	moist	0			
1258	S-5			43/60		m.dense	light brn	F-M sand	SW/GW	20" of slough	0	0	0	0
						↓	↓	tr. to some C. sand and sm-l large gravel		large gravel pulverized round gravel 1" ϕ				
						↓	tan	↓ ↓		moist	0			
					▽	m.dense	tan	F-M sand tr. C sand and gravel	SP					
						↓	↓	↓		wet	0			

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response is obtained

Drilling Area Background (ppm): 0.0

Remarks: Hand auger 0-5' bgs
Continuous macrocore 5-40' bgs

Converted to Well: Yes ____ No X Well I.D. #: NA

Location at top of basin (~25' up), ~1 to 2 feet water/ice in basin

TETRA TECH

BORING LOG

PROJECT NAME: NWIRP Bethpage GM-38 Basin
PROJECT NUMBER: 112G08005-WE16
DRILLING COMPANY: Cascade (Lynnbrook, NY office)
DRILLING RIG: Geoprobe 6620DT
BORING No.: BP-GM38Basin-SB02
DATE: 1/19/2018
GEOLOGIST: J. Birkett
DRILLER: C. Brandt

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1308	S-1 SS	26		19/60		m. dense	tan/lt brn	F-M sand tr. C. sand	SP	wet	0	0	0	0
							brn	and sm-med gravel		Poor recovery				
										Must have fallen out of shoe, upon retrieve	0			
		30								wet	0			
1320	S-2 SS	31		60/60		m. dense	light brn	F-M sand tr. C sand	SP	13" of slough	0	0	0	0
										wet				
						dense		Silty VF sand some F sand	SP/SM		0			
						dense		VF-F sand some silt (micaceous)	SP	wet				
		35									0			
	S-3 SS	36		48/60		m. dense	light brn	F sand some M. sand tr. silt	SP	liner split	0	0	0	0
1340										lost some sample getting out of macrocore				
						m. dense	light brn	Silty VF sand tr. clay	SP/SM		0			
						m. stiff	light brn	Clay some silt	CH	wet				
		46				m. dense	light brn	F-M sand some silt tr. C. sand	SP	wet	0			
					EOB 40' bgs									

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response is obtained

Drilling Area Background (ppm): 0.0

Remarks: See first page

Converted to Well: Yes ____ No X Well I.D. #: NA

Attachment A-2

Photographic Log

Photo 1: 01/19/2018. Bottom of the access road looking north-northeast across the basin filled with ice and water.

Photo 2: 01/19/2018. Bottom of the access road looking east across the basin filled with ice and water.

Photo 3: 01/19/2018. Top of north bank, looking west. Soil boring BP-GM38Basin-SB02.

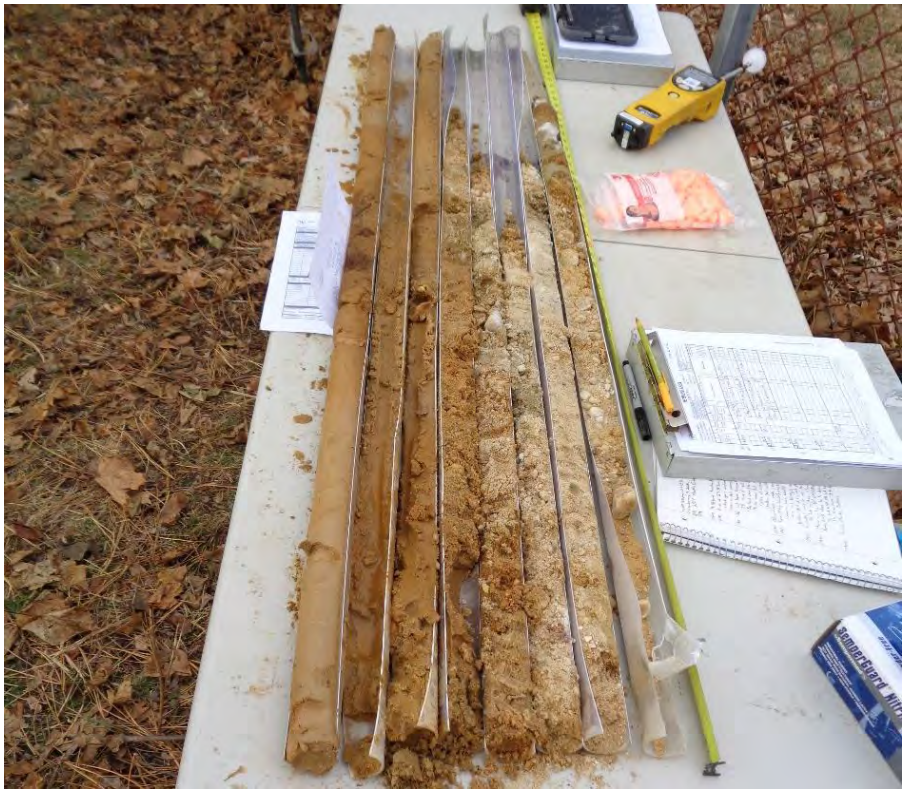

Photo 4: 01/19/2018. Macrocores from soil boring BP-GM38Basin-SB01 from 5 to 40 feet bgs. The first 7 feet were hand augured. The cores are arranged from right to left in descending order.

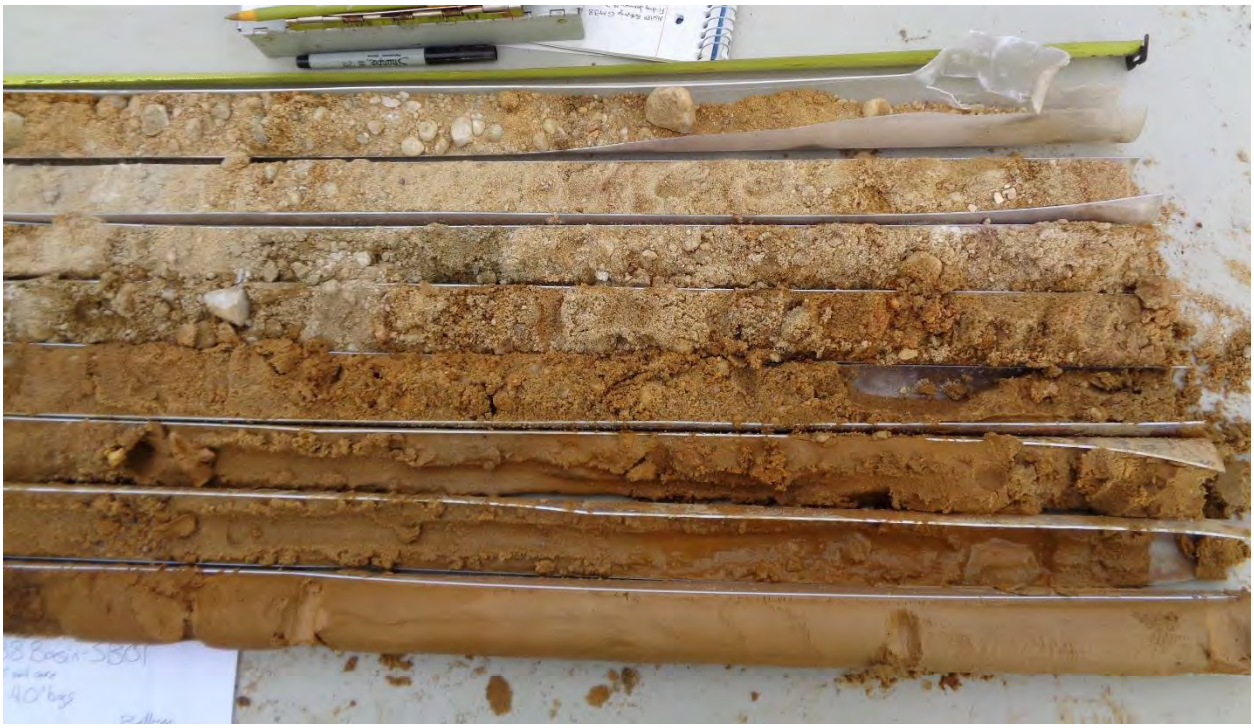

Photo 5: 01/19/2018. Cores are arranged from top to bottom in descending order. Note clay in the bottom two feet of the core from 35 to 40 feet bgs.

Photo 6: 01/19/2018. Macrocores from soil boring BP-GM38Basin-SB02 from 5 to 40 feet bgs. The first 5 feet were hand augured. The cores are arranged from right to left in descending order.

Appendix C
Analytical Results

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American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

February 01, 2018

Bob Engel
Coastal Environmental Group
264 Sills Road, Suite A
East Patchogue, NY 11772
TEL: (631) 405-8537
FAX

RE: TOB Basin #495, Arthur Ave, Bethpage, N Order No.: 1801081

Dear Bob Engel:

American Analytical Laboratories, LLC. received 1 sample(s) on 1/19/2018 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report. The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

Lori Beyer

Lori Beyer
Lab Director
American Analytical Laboratories, LLC.

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Workorder Sample Summary

WO#: **1801081**

01-Feb-18

CLIENT: Coastal Environmental Group
Project: TOB Basin #495, Arthur Ave, Bethpage, NY

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1801081-001A	2oz,8oz20180119A		1/19/2018 12:30:00 PM	1/19/2018 1:15:00 PM	Soil
1801081-001B	2oz,8oz20180119A		1/19/2018 12:30:00 PM	1/19/2018 1:15:00 PM	Soil

CHAIN OF CUSTODY

AMERICAN ANALYTICAL LABORATORIES

56 Toledo Street, Farmingdale NY 11735
(T) 631-454-6100 (F) 631-454-8027
www.american-analytical.com

CERTIFICATIONS
NY ELAP - 11418 PA DEP - 68-00573
NJ DEP - NY050 CT DOH - PH-0205

Client Information

Company Name: COASTAL ENVIRONMENTAL
Address: 264 SILLS RD SUITE A
City: E. PATCHOGUE State: NY Zip: 11772
Project Contact: BOB ENGER
Phone #: 631 405 8537
E-mail: BENGER@COASTALGRP.NET

Project Information

Project Name: TOB BASIN #495
Street: ARTHUR AV
City: BETHPAGE State: NY Zip:
Project # / Purchase Order #: N40085-12-B-1757
Sampler's Name / Company: BOB ENGER / COASTAL
Sampler's Signature:

Analytical Test / Information

PART 375 (A)(B)

LAB SAMPLE # (LAB USE ONLY)	Client Sample ID	Sample Type	Matrix Code	Date	Time	Glass / Plastic	Total # of bottles	Number of Each Preserved Bottle: NONE	HCl	NaOH	HNO_3	H_2SO_4	DI Water (5035A)	MeOH	OTHER	Analytical Test / Information
1861081001 TB	802201801 19A		S	1/19/18	12:30	G	1									1
	802201801 19B		S	1/19/18	12:35	G	1									1
	202201801 19A		S	1/19/18	12:40	G	1									1

Turnaround Time (Business Days)

- [X] Standard 7-10 Business Days
- [ ] 3 Day *RUSH*
- [ ] 5 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 1 Day *RUSH*

Please contact laboratory for rush service availability

SAMPLE TYPE

G = Grab
C = Composite
B = Blank

MATRIX CODE

L = Liquid PC = Paint Chip
S = Soil SL = Sludge
O = Oil SD = Solid
W = Wipe M = Misc

ELECTRONIC DELIVERABLES

NYCRR Part 375 - please circle
Unres/ Comm/ Industrial/ Residential/ Res Residential/ PGW
NJ Soil Clean Up Criteria SCDOH Action Levels
CP 51 - Gas / Fuel TCLP Hazardous Waste
TOGS NYSDEC EQUIS

Comments / Remarks

Cooler Temp: 5°

Sample custody must be documented below, each time samples change possession, with a signature, date, and time.

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
	1/19/18 1:15 PM		P Mas	1/19/18 1315	P Mas
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Sample Log-In Check List

Client Name: **COASTAL ENV. GROUP** Work Order Number: **1801081** RcptNo: **1**

Logged by:	**Jenny Mullady**	**1/19/2018 1:15:00 PM**	Jenny Mullady
Completed By:	**Jenny Mullady**	**1/19/2018**	Jenny Mullady
Reviewed By:	**Karen Kelly**	**1/19/2018**	Karen Kelly

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
	No. Seal Date:	Signed By:		
5.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

volatile sample collected in 2 oz jar with zero headspace

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By

American Analytical Laboratories, LLC.
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Case Narrative

WO#: **1801081**
Date: **2/1/2018**

CLIENT: Coastal Environmental Group
Project: TOB Basin #495, Arthur Ave, Bethpage, NY

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846 and additional methods as detailed throughout the text of the report. All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives with exceptions notated in this Narrative discussion of this report.

Soil sample results analyzed for Volatile Organics via preparation method SW846 Method 5035A by the Low Level procedures potentially may be estimated, "J" (biased low) since the samples for this test were not collected according to the 5035A Method. Volatile LCS are analyzed with preservatives - HCL/NaHSO4/Methanol depending on level of analysis (high/low) similar to sample analysis. Outliers can be attributed to the presence of chemical preservatives. 2-Chloroethyl vinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

SVOA: Calibration for Benzoic Acid does not meet method requirements. Reporting limit must be considered estimated.

Pesticide/PCB/Herbicide analysis are analyzed on two distinct columns. Once a target compound is qualitatively confirmed by detection on both columns and quantitation is determined to be >40% between the two columns, AAL's policy is to report the lower of the values as suggested by SW846 Method 8000C in cases where no interference exists. If in the professional judgment of the laboratory, the higher value must be utilized this is explained in the lab report.

The following parameters (if included in this report) are not offered by NY ELAP: VOA 8260 Soil; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Diisopropyl ether, Ethanol, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Isopropyl Acetate, n-Amyl Acetate, n-Butyl Acetate, n-Propyl Acetate. VOA 8260 Liquid; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Isopropyl Acetate, n-Amyl acetate, n-Butyl Acetate, n-Propyl Acetate. Pesticides 8081 Soil; DBCP. Herbicides 8151 Soil; 3,5-Dichlorobenzoic Acid, 4-Nitrophenol, Acifluorfen, Bentazon, Chloramben, DCPA, Picloram .Lachat 10-107-6-1B Ammonia in Soil, SM 2540G Total Volatile Solids, Soil TKN, Soil Organic Nitrogen, Percent Moisture, pH in non-potable water and temperature at which pH is measured, SM 4500-SO3 B Sulfite in Liquid, Total Sulfur in Soil, Acid Soluble Chloride by ASTMC1152, Water Soluble Chloride by ASTMC1218, Chlorine Demand by SM 2350 B, Total Residual Chlorine in Liquid and Reactivity to Sulfide and Reactivity to Cyanide.

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Case Narrative

WO#: **1801081**
Date: **2/1/2018**

CLIENT: Coastal Environmental Group
Project: TOB Basin #495, Arthur Ave, Bethpage, NY

The test results meet the requirements of the NYSDOH and NELAC standards, except where noted. The information contained in this analytical report is the sole property of American Analytical Laboratories, LLC. or the client for which this report was issued. The results contained in this report are only representative of the samples received. The sample receipt checklist is included as part of this lab report. Conditions can vary at different times and at different sampling conditions. American Analytical is not responsible for the use or interpretation of the data included herein.

American Analytical Laboratories, LLC.
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Website: www.American-Analytical.com

Definition Only

WO#: **1801081**
Date: **2/1/2018**

Definitions:

Sample Result and QC Summary Qualifiers - Level I and Level II Reports
ND - Not detected at the reporting limit/Limit of Quantitation

B - The analyte was detected in the associated method blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <5x the blank value as artifact.

E - The value is above the quantitation range

D - Analyte concentration was obtained from diluted analysis or from analysis using reduced sample volume.

J - The analyte was detected below the limit of quantitation but greater than the established Limit of Detection (LOD). There is greater uncertainty associated with these results and data should be considered as estimated.

U - The compound was analyzed for but not detected.

H - Holding time for preparation or analysis has been exceeded.

S - Spike recovery is outside accepted recovery limits.

R - RPD is outside accepted recovery range.

P - Secondary column exceeds 40% difference for GC test.

* - Calibration exceeds method requirement. Due to the large number of analytes for organic testing, the method allows 10% of analytes to have %RSD and/or %D to be >20%.
LOD - Limit of Detection; the lowest level the analyte can be determined to be statistically different from a blank.
LOQ - Limit of Quantitation; the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
PQL - Practical Quantitation Limit; the lowest level that can be reliably achieved within the specific limits of Precision and accuracy. Listed on the QC Summary Forms.
m - Analyte was manually integrated for GC/MS.
+ - Concentration exceeds regulatory level for TCLP

American Analytical Laboratories, LLC.

Date: *01-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	2oz,8oz20180119A
Lab Order:	1801081	**Collection Date:**	1/19/2018 12:30:00 PM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1801081-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,1,1-Trichloroethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,1,2,2-Tetrachloroethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethan	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,1,2-Trichloroethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,1-Dichloroethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,1-Dichloroethene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,1-Dichloropropene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,2,3-Trichlorobenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,2,3-Trichloropropane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,2,4-Trichlorobenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,2,4-Trimethylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,2-Dibromo-3-chloropropane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,2-Dibromoethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,2-Dichlorobenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,2-Dichloroethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,2-Dichloropropane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,3,5-Trimethylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,3-Dichlorobenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,3-dichloropropane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,4-Dichlorobenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
1,4-Dioxane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
2,2-Dichloropropane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
2-Butanone	ND	5.5	11	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
2-Chloroethyl vinyl ether	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
2-Chlorotoluene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
2-Hexanone	ND	5.5	11	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
2-Propanol	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
4-Chlorotoluene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
4-Isopropyltoluene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
4-Methyl-2-pentanone	ND	5.5	11	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Acetone	ND	5.5	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM

American Analytical Laboratories, LLC.

Date: *01-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	2oz,8oz20180119A
Lab Order:	1801081	**Collection Date:**	1/19/2018 12:30:00 PM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1801081-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
Benzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Bromobenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Bromochloromethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Bromodichloromethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Bromoform	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Bromomethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Carbon disulfide	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Carbon tetrachloride	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Chlorobenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Chlorodifluoromethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Chloroethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Chloroform	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Chloromethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
cis-1,2-Dichloroethene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
cis-1,3-Dichloropropene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Cyclohexane	ND	2.2	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Dibromochloromethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Dibromomethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Dichlorodifluoromethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Diisopropyl ether	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Ethanol	ND	11	22	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Ethylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Freon-114	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Hexachlorobutadiene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Isopropylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
m,p-Xylene	ND	2.2	11	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Methyl Acetate	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Methyl tert-butyl ether	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Methylene chloride	ND	5.5	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
n-Butylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
n-Propylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Naphthalene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
o-Xylene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM

American Analytical Laboratories, LLC.

Date: *01-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	2oz,8oz20180119A
Lab Order:	1801081	**Collection Date:**	1/19/2018 12:30:00 PM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1801081-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
p-Diethylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
p-Ethyltoluene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
sec-Butylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Styrene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
t-Butyl alcohol	ND	2.7	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
tert-Butylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Tetrachloroethene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Toluene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
trans-1,2-Dichloroethene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
trans-1,3-Dichloropropene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Trichloroethene	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Trichlorofluoromethane	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Vinyl acetate	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Vinyl chloride	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Xylenes, Total	ND	3.3	16	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Acrolein	ND	14	27	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM
Acrylonitrile	ND	1.1	5.5	U	µg/Kg-dry	1	1/25/2018 7:53:00 PM

American Analytical Laboratories, LLC.

Date: *01-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	2oz,8oz20180119A
Lab Order:	1801081	**Collection Date:**	1/19/2018 12:30:00 PM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1801081-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY			**SW7471B**		**SW7471B**		Analyst: **JP**
Mercury	0.0122	0.00752	0.0141	J	mg/Kg-dry	1	1/23/2018 12:48:00 PM
HERBICIDES SW-846 8151			**SW8151A**		**SW8151A**		Analyst: **SB**
2,4,5-T	ND	1.1	3.3	U	µg/Kg-dry	1	1/31/2018 6:43:00 PM
2,4,5-TP	ND	1.1	3.3	U	µg/Kg-dry	1	1/31/2018 6:43:00 PM
2,4-D	ND	1.1	3.3	U	µg/Kg-dry	1	1/31/2018 6:43:00 PM
Dicamba	ND	1.1	3.3	U	µg/Kg-dry	1	1/31/2018 6:43:00 PM
PCB'S AS AROCLORS SW-846 METHOD 8082			**SW8082A**		**SW3546**		Analyst: **SB**
Aroclor 1016	ND	11	22	U	µg/Kg-dry	1	1/27/2018 9:48:00 AM
Aroclor 1221	ND	11	22	U	µg/Kg-dry	1	1/27/2018 9:48:00 AM
Aroclor 1232	ND	11	22	U	µg/Kg-dry	1	1/27/2018 9:48:00 AM
Aroclor 1242	ND	11	22	U	µg/Kg-dry	1	1/27/2018 9:48:00 AM
Aroclor 1248	ND	11	22	U	µg/Kg-dry	1	1/27/2018 9:48:00 AM
Aroclor 1254	ND	11	22	U	µg/Kg-dry	1	1/27/2018 9:48:00 AM
Aroclor 1260	ND	11	22	U	µg/Kg-dry	1	1/27/2018 9:48:00 AM
Aroclor 1262	ND	11	22	U	µg/Kg-dry	1	1/27/2018 9:48:00 AM
Aroclor 1268	ND	11	22	U	µg/Kg-dry	1	1/27/2018 9:48:00 AM
PESTICIDES SW-846 METHOD 8081			**SW8081B**		**SW3546**		Analyst: **SB**
4,4´-DDD	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
4,4´-DDE	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
4,4´-DDT	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
Aldrin	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
alpha-BHC	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
alpha-Chlordane	ND	6.6	11	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
beta-BHC	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
Chlorobenzilate	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
DBCP	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
delta-BHC	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
Dieldrin	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
Endosulfan I	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
Endosulfan II	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
Endosulfan sulfate	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM

American Analytical Laboratories, LLC.

Date: *01-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	2oz,8oz20180119A
Lab Order:	1801081	**Collection Date:**	1/19/2018 12:30:00 PM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1801081-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			**SW8081B**		**SW3546**		Analyst: **SB**
Endrin	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
Endrin aldehyde	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
Endrin ketone	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
gamma-BHC	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
gamma-Chlordane	ND	6.6	11	PU	µg/Kg-dry	1	1/26/2018 4:10:00 PM
Heptachlor	ND	2.2	3.3	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
Heptachlor epoxide	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
Hexachlorobenzene	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
Hexachlorocyclopentadiene	ND	3.3	3.3	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
Methoxychlor	ND	1.1	2.7	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
Toxaphene	ND	14	27	U	µg/Kg-dry	1	1/26/2018 4:10:00 PM
PERCENT MOISTURE			**D2216**				Analyst: **KK**
Percent Moisture	9.06	0	1.00		wt%	1	1/23/2018 9:44:01 AM
TOTAL METALS			**SW6010C**		**SW3050B**		Analyst: **JP**
Aluminum	3330	0.0971	0.389		mg/Kg-dry	1	1/23/2018 12:10:35 PM
Antimony	ND	0.194	0.486	U	mg/Kg-dry	1	1/23/2018 12:10:35 PM
Arsenic	1.74	0.194	0.486		mg/Kg-dry	1	1/23/2018 12:10:35 PM
Barium	9.25	0.194	0.389		mg/Kg-dry	1	1/23/2018 12:10:35 PM
Beryllium	ND	0.0971	0.389	U	mg/Kg-dry	1	1/23/2018 12:10:35 PM
Cadmium	ND	0.0971	0.389	U	mg/Kg-dry	1	1/23/2018 12:10:35 PM
Calcium	156	0.194	0.486		mg/Kg-dry	1	1/23/2018 12:10:35 PM
Chromium	4.55	0.0971	0.389		mg/Kg-dry	1	1/23/2018 12:10:35 PM
Cobalt	1.87	0.0971	0.389		mg/Kg-dry	1	1/23/2018 12:10:35 PM
Copper	4.22	0.0971	0.389		mg/Kg-dry	1	1/23/2018 12:10:35 PM
Iron	5550	1.94	3.89	D	mg/Kg-dry	10	1/23/2018 12:18:56 PM
Lead	5.78	0.194	0.389		mg/Kg-dry	1	1/23/2018 12:10:35 PM
Magnesium	454	0.0971	0.389		mg/Kg-dry	1	1/23/2018 12:10:35 PM
Manganese	71.9	0.0971	0.389		mg/Kg-dry	1	1/23/2018 12:10:35 PM
Nickel	3.85	0.0971	0.389		mg/Kg-dry	1	1/23/2018 12:10:35 PM
Potassium	163	0.194	0.486		mg/Kg-dry	1	1/23/2018 12:10:35 PM
Selenium	ND	0.194	0.486	U	mg/Kg-dry	1	1/23/2018 12:10:35 PM
Silver	ND	0.0971	0.389	U	mg/Kg-dry	1	1/23/2018 12:10:35 PM

American Analytical Laboratories, LLC.

Date: *01-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	2oz,8oz20180119A
Lab Order:	1801081	**Collection Date:**	1/19/2018 12:30:00 PM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1801081-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
TOTAL METALS			**SW6010C**		**SW3050B**		Analyst: **JP**
Sodium	19.6	0.194	0.486		mg/Kg-dry	1	1/23/2018 12:10:35 PM
Thallium	ND	0.291	0.486	U	mg/Kg-dry	1	1/23/2018 12:10:35 PM
Vanadium	6.98	0.0971	0.389		mg/Kg-dry	1	1/23/2018 12:10:35 PM
Zinc	11.9	0.0971	0.389		mg/Kg-dry	1	1/23/2018 12:10:35 PM
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
Biphenyl	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
1,2,4-Trichlorobenzene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
1,2-Dichlorobenzene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
1,3-Dichlorobenzene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
1,4-Dichlorobenzene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
2,4,5-Trichlorophenol	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
2,4,6-Trichlorophenol	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
2,4-Dichlorophenol	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
2,4-Dimethylphenol	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
2,4-Dinitrophenol	ND	54	540	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
2,4-Dinitrotoluene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
2,6-Dinitrotoluene	ND	54	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
2-Chloronaphthalene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
2-Chlorophenol	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
2-Methylnaphthalene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
2-Methylphenol	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
2-Nitroaniline	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
2-Nitrophenol	ND	54	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
3+4-Methylphenol	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
3,3´-Dichlorobenzidine	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
3-Nitroaniline	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
4,6-Dinitro-2-methylphenol	ND	54	540	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
4-Bromophenyl phenyl ether	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
4-Chloro-3-methylphenol	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
4-Chloroaniline	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
4-Chlorophenyl phenyl ether	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
4-Nitroaniline	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM

American Analytical Laboratories, LLC.

Date: *01-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	2oz,8oz20180119A
Lab Order:	1801081	**Collection Date:**	1/19/2018 12:30:00 PM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1801081-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
4-Nitrophenol	ND	54	540	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Acenaphthene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Acenaphthylene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Acetophenone	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Aniline	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Anthracene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Atrazine	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Azobenzene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Benzaldehyde	ND	54	540	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Benzidine	ND	54	540	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Benzo(a)anthracene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Benzo(a)pyrene	ND	27	160	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Benzo(b)fluoranthene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Benzo(g,h,i)perylene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Benzo(k)fluoranthene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Benzoic acid	ND	54	540	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Benzyl alcohol	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Bis(2-chloroethoxy)methane	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Bis(2-chloroethyl)ether	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Bis(2-chloroisopropyl)ether	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Bis(2-ethylhexyl)phthalate	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Butyl benzyl phthalate	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Caprolactam	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Carbazole	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Chrysene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Di-n-butyl phthalate	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Di-n-octyl phthalate	ND	54	540	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Dibenzo(a,h)anthracene	ND	27	160	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Dibenzofuran	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Diethyl phthalate	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Dimethyl phthalate	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Fluoranthene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Fluorene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM

American Analytical Laboratories, LLC.

Date: *01-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	2oz,8oz20180119A
Lab Order:	1801081	**Collection Date:**	1/19/2018 12:30:00 PM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1801081-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
Hexachlorobenzene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Hexachlorobutadiene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Hexachlorocyclopentadiene	ND	54	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Hexachloroethane	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Indeno(1,2,3-c,d)pyrene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Isophorone	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
N-Nitrosodi-n-propylamine	ND	27	160	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
N-Nitrosodimethylamine	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
N-Nitrosodiphenylamine	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Naphthalene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Nitrobenzene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Parathion	ND	54	540	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Pentachlorophenol	ND	54	540	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Phenanthrene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Phenol	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Pyrene	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
Pyridine	ND	27	270	U	µg/Kg-dry	1	1/26/2018 6:59:00 PM
CYANIDE, TOTAL			**SW9012B**		**SW9012B**		Analyst: **STP**
Cyanide, Total & Amenable: Auto Colorimetric	ND	0.0550	0.110	U	mg/Kg-dry	1	1/24/2018 10:32:10 AM
TRIVALENT CHROMIUM			**SW6010C**				Analyst: **JP**
Chromium, Trivalent	4.55	0.0971	0.389		mg/Kg-dry	1	1/23/2018
HEXAVALENT CHROMIUM			**SW7196A**		**SW3060A**		Analyst: **JaP**
Chromium, Hexavalent	ND	0.268	0.537	U	mg/Kg-dry	1	1/25/2018 10:00:00 AM

American Analytical Laboratories, LLC.
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Website: www.American-Analytical.com

February 14, 2018

Bob Engel
Coastal Environmental Group
264 Sills Road, Suite A
East Patchogue, NY 11772
TEL: (631) 405-8537
FAX

RE: TOB Basin #495, Arthur Ave, Bethpage, N Order No.: 1802035

Dear Bob Engel:

American Analytical Laboratories, LLC. received 4 sample(s) on 2/6/2018 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report. The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

Lori Beyer

Lori Beyer
Lab Director
American Analytical Laboratories, LLC.

American Analytical Laboratories, LLC.
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Farmingdale, New York 11735
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Website: www.American-Analytical.com

Workorder Sample Summary

WO#: **1802035**

14-Feb-18

CLIENT: Coastal Environmental Group
Project: TOB Basin #495, Arthur Ave, Bethpage, NY

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1802035-001A	TOB #495 S. East		2/6/2018 9:30:00 AM	2/6/2018 12:15:00 PM	Soil
1802035-001B	TOB #495 S. East		2/6/2018 9:30:00 AM	2/6/2018 12:15:00 PM	Soil
1802035-002A	TOB #495 N. West		2/6/2018 11:10:00 AM	2/6/2018 12:15:00 PM	Soil
1802035-002B	TOB #495 N. West		2/6/2018 11:10:00 AM	2/6/2018 12:15:00 PM	Soil
1802035-003A	TOB #495 Center		2/6/2018 10:35:00 AM	2/6/2018 12:15:00 PM	Soil
1802035-003B	TOB #495 Center		2/6/2018 10:35:00 AM	2/6/2018 12:15:00 PM	Soil
1802035-004A	TOB #495 N. East		2/6/2018 10:15:00 AM	2/6/2018 12:15:00 PM	Soil
1802035-004B	TOB #495 N. East		2/6/2018 10:15:00 AM	2/6/2018 12:15:00 PM	Soil

CHAIN OF CUSTODY

AMERICAN ANALYTICAL LABORATORIES

56 Toledo Street, Farmingdale NY 11735
(T) 631-454-6100 (F) 631-454-8027
www.american-analytical.com

CERTIFICATIONS
NY ELAP - 11418 PA DEP - 68-00573
NJ DEP - NY050 CT DOH - PH-0205

Client Information

Company Name: COASTAL ENVIRONMENTAL
Address: 214 SILLS RD SUITE A
City: E. PATCHOGUE State: NY Zip: 11772
Project Contact: BOB ENGEL
Phone #: 631 405 8537
E-mail: BENGEL@COASTALGRP.NET

Project Information

Project Name: TOB BASIN #495
Street: ARTHUR AV
City: BETHPAGE State: NY Zip:
Project # / Purchase Order #: N40085-12-B-1757
Sampler's Name / Company: BOB ENGEL / COASTAL
Sampler's Signature:

Analytical Test / Information

PART 375 (A)(S)

LAB SAMPLE # (LAB USE ONLY)	Client Sample ID	Sample Type	Matrix Code	Date	Time	Glass / Plastic	Total # of bottles	NONE	HCl	NaOH	HNO_3	H_2SO_4	DI Water (5035A)	MeOH	OTHER	PART 375 (A)(S)
1802035-001	TOB #495 S. EAST		S	2/6/18	930AM	G	3	3								✓
002	TOB #495 N. WEST		S	2/6/18	1110AM	G	3	3								✓
003	TOB #495 CENTER		S	2/6/18	1035AM	G	3	3								✓
004	TOB #495 N. EAST		S	2/6/18	10:5AM	G	3	3								✓

Turnaround Time (Business Days)

- [ ] Standard
- [ ] 7-10 Business Days
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *RUSH*

Please contact laboratory for rush service availability

SAMPLE TYPE

G = Grab
C = Composite
B = Blank

MATRIX CODE

L = Liquid PC = Paint Chip
S = Soil SL = Sludge
O = Oil SD = Solid
W = Wipe M = Misc

ELECTRONIC DELIVERABLES

NYCRR Part 375 - please circle
Unres/ Comm/ Industrial/ Residential/ Res Residential/ PGW
NJ Soil Clean Up Criteria
CP 51 - Gas / Fuel
TOGS
SCDOH Action Levels
TCLP Hazardous Waste
NYSDEC EQUIS

Comments / Remarks

Cooler Temp: 2.6°C

Sample custody must be documented below, each time samples change possession, with a signature, date, and time.

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
	2/6/18 12:15	ROBERT ENGEL		2/6/18 12:15	
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME

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Sample Log-In Check List

Client Name: **COASTAL ENV. GROUP** Work Order Number: **1802035** RcptNo: **1**

Logged by:	**Lori Beyer**	**2/6/2018 12:15:00 PM**	Lori Beyer
Completed By:	**Lori Beyer**	**2/6/2018 12:23:51 PM**	Lori Beyer
Reviewed By:	**Karen Kelly**	**2/6/2018**	Karen Kelly

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
	No. Seal Date:	Signed By:		
5.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

volatile samples collected in 2 oz jar with zero headspace

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By

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Case Narrative

WO#: **1802035**
Date: **2/14/2018**

CLIENT: Coastal Environmental Group
Project: TOB Basin #495, Arthur Ave, Bethpage, NY

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846 and additional methods as detailed throughout the text of the report. All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives with exceptions notated in this Narrative discussion of this report.

Soil sample results analyzed for Volatile Organics via preparation method SW846 Method 5035A by the Low Level procedures potentially may be estimated, "J" (biased low) since the samples for this test were not collected according to the 5035A Method. Volatile LCS are analyzed with preservatives - HCL/NaHSO4/Methanol depending on level of analysis (high/low) similar to sample analysis. Outliers can be attributed to the presence of chemical preservatives. 2-Chloroethyl vinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

SVOA: Calibration for Benzoic Acid does not meet method requirements. Reporting limit must be considered estimated.

Pesticide/PCB/Herbicide analysis are analyzed on two distinct columns. Once a target compound is qualitatively confirmed by detection on both columns and quantitation is determined to be >40% between the two columns, AAL's policy is to report the lower of the values as suggested by SW846 Method 8000C in cases where no interference exists. If in the professional judgment of the laboratory, the higher value must be utilized this is explained in the lab report.

The following parameters (if included in this report) are not offered by NY ELAP: VOA 8260 Soil; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Diisopropyl ether, Ethanol, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Isopropyl Acetate, n-Amyl Acetate, n-Butyl Acetate, n-Propyl Acetate. VOA 8260 Liquid; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Isopropyl Acetate, n-Amyl acetate, n-Butyl Acetate, n-Propyl Acetate. Pesticides 8081 Soil; DBCP. Herbicides 8151 Soil; 3,5-Dichlorobenzoic Acid, 4-Nitrophenol, Acifluorfen, Bentazon, Chloramben, DCPA, Picloram .Lachat 10-107-6-1B Ammonia in Soil, SM 2540G Total Volatile Solids, Soil TKN, Soil Organic Nitrogen, Percent Moisture, pH in non-potable water and temperature at which pH is measured, SM 4500-SO3 B Sulfite in Liquid, Total Sulfur in Soil, Acid Soluble Chloride by ASTMC1152, Water Soluble Chloride by ASTMC1218, Chlorine Demand by SM 2350 B, Total Residual Chlorine in Liquid and Reactivity to Sulfide and Reactivity to Cyanide.

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Case Narrative

WO#: **1802035**
Date: **2/14/2018**

CLIENT: Coastal Environmental Group
Project: TOB Basin #495, Arthur Ave, Bethpage, NY

The test results meet the requirements of the NYSDOH and NELAC standards, except where noted. The information contained in this analytical report is the sole property of American Analytical Laboratories, LLC. or the client for which this report was issued. The results contained in this report are only representative of the samples received. The sample receipt checklist is included as part of this lab report. Conditions can vary at different times and at different sampling conditions. American Analytical is not responsible for the use or interpretation of the data included herein.

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Definition Only

WO#: **1802035**
Date: **2/14/2018**

Definitions:

Sample Result and QC Summary Qualifiers - Level I and Level II Reports
ND - Not detected at the reporting limit/Limit of Quantitation

B - The analyte was detected in the associated method blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <5x the blank value as artifact.

E - The value is above the quantitation range

D - Analyte concentration was obtained from diluted analysis or from analysis using reduced sample volume.

J - The analyte was detected below the limit of quantitation but greater than the established Limit of Detection (LOD). There is greater uncertainty associated with these results and data should be considered as estimated.

U - The compound was analyzed for but not detected.

H - Holding time for preparation or analysis has been exceeded.

S - Spike recovery is outside accepted recovery limits.

R - RPD is outside accepted recovery range.

P - Secondary column exceeds 40% difference for GC test.

* - Calibration exceeds method requirement. Due to the large number of analytes for organic testing, the method allows 10% of analytes to have %RSD and/or %D to be >20%.
LOD - Limit of Detection; the lowest level the analyte can be determined to be statistically different from a blank.
LOQ - Limit of Quantitation; the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
PQL - Practical Quantitation Limit; the lowest level that can be reliably achieved within the specific limits of Precision and accuracy. Listed on the QC Summary Forms.
m - Analyte was manually integrated for GC/MS.
+ - Concentration exceeds regulatory level for TCLP

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 S. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 9:30:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,1,1-Trichloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,1,2,2-Tetrachloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,1,2-Trichloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,1-Dichloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,1-Dichloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,1-Dichloropropene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,2,3-Trichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,2,3-Trichloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,2,4,5-Tetramethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,2,4-Trichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,2,4-Trimethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,2-Dibromo-3-chloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,2-Dibromoethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,2-Dichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,2-Dichloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,2-Dichloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,3,5-Trimethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,3-Dichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,3-dichloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,4-Dichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
1,4-Dioxane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
2,2-Dichloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
2-Butanone	ND	5.3	11	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
2-Chloroethyl vinyl ether	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
2-Chlorotoluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
2-Hexanone	ND	5.3	11	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
2-Propanol	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
4-Chlorotoluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
4-Isopropyltoluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
4-Methyl-2-pentanone	ND	5.3	11	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Acetone	ND	5.3	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 S. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 9:30:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
Benzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Bromobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Bromochloromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Bromodichloromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Bromoform	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Bromomethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Carbon disulfide	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Carbon tetrachloride	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Chlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Chlorodifluoromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Chloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Chloroform	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Chloromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
cis-1,2-Dichloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
cis-1,3-Dichloropropene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Cyclohexane	ND	2.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Dibromochloromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Dibromomethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Dichlorodifluoromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Diisopropyl ether	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Ethanol	ND	11	21	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Ethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Freon-114	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Hexachlorobutadiene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Isopropylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
m,p-Xylene	ND	2.1	11	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Methyl Acetate	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Methyl tert-butyl ether	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Methylene chloride	ND	5.3	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
n-Butylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
n-Propylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Naphthalene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
o-Xylene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 S. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 9:30:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
p-Diethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
p-Ethyltoluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
sec-Butylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Styrene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
t-Butyl alcohol	ND	2.7	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
tert-Butylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Tetrachloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Toluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
trans-1,2-Dichloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
trans-1,3-Dichloropropene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Trichloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Trichlorofluoromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Vinyl acetate	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Vinyl chloride	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Xylenes, Total	ND	3.2	16	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Acrolein	ND	13	27	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM
Acrylonitrile	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:01:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 S. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 9:30:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY			**SW7471B**		**SW7471B**		Analyst: **JP**
Mercury	ND	0.00752	0.0141	U	mg/Kg-dry	1	2/9/2018 10:44:02 AM
HERBICIDES SW-846 8151			**SW8151A**		**SW8151A**		Analyst: **SB**
2,4,5-T	4.9	1.1	3.2	P	µg/Kg-dry	1	2/13/2018 5:24:00 PM
2,4,5-TP	ND	1.1	3.2	U	µg/Kg-dry	1	2/13/2018 5:24:00 PM
2,4-D	ND	1.1	3.2	U	µg/Kg-dry	1	2/13/2018 5:24:00 PM
Dicamba	ND	1.1	3.2	U	µg/Kg-dry	1	2/13/2018 5:24:00 PM
PCB'S AS AROCLORS SW-846 METHOD 8082			**SW8082A**		**SW3546**		Analyst: **SB**
Aroclor 1016	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:12:00 PM
Aroclor 1221	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:12:00 PM
Aroclor 1232	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:12:00 PM
Aroclor 1242	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:12:00 PM
Aroclor 1248	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:12:00 PM
Aroclor 1254	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:12:00 PM
Aroclor 1260	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:12:00 PM
Aroclor 1262	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:12:00 PM
Aroclor 1268	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:12:00 PM
PESTICIDES SW-846 METHOD 8081			**SW8081B**		**SW3546**		Analyst: **SB**
4,4´-DDD	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
4,4´-DDE	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
4,4´-DDT	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
Aldrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
alpha-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
alpha-Chlordane	ND	6.2	10	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
beta-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
Chlorobenzilate	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
DBCP	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
delta-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
Dieldrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
Endosulfan I	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
Endosulfan II	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
Endosulfan sulfate	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 S. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 9:30:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			**SW8081B**		**SW3546**		Analyst: **SB**
Endrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
Endrin aldehyde	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
Endrin ketone	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
gamma-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
gamma-Chlordane	ND	6.2	10	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
Heptachlor	ND	2.1	3.1	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
Heptachlor epoxide	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
Hexachlorobenzene	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
Hexachlorocyclopentadiene	ND	3.1	3.1	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
Methoxychlor	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
Toxaphene	ND	13	26	U	µg/Kg-dry	1	2/12/2018 9:44:00 PM
PERCENT MOISTURE			**D2216**				Analyst: **KK**
Percent Moisture	4.99	0	1.00		wt%	1	2/8/2018 9:31:18 AM
TOTAL METALS			**SW6010C**		**SW3050B**		Analyst: **JP**
Aluminum	879	0.105	0.421		mg/Kg-dry	1	2/9/2018 9:19:45 AM
Antimony	ND	0.211	0.526	U	mg/Kg-dry	1	2/9/2018 9:19:45 AM
Arsenic	1.14	0.211	0.526		mg/Kg-dry	1	2/9/2018 9:19:45 AM
Barium	2.87	0.211	0.421		mg/Kg-dry	1	2/9/2018 9:19:45 AM
Beryllium	ND	0.105	0.421	U	mg/Kg-dry	1	2/9/2018 9:19:45 AM
Cadmium	ND	0.105	0.421	U	mg/Kg-dry	1	2/9/2018 9:19:45 AM
Calcium	45.7	0.211	0.526		mg/Kg-dry	1	2/9/2018 9:19:45 AM
Chromium	3.82	0.105	0.421		mg/Kg-dry	1	2/9/2018 9:19:45 AM
Cobalt	ND	0.105	0.421	U	mg/Kg-dry	1	2/9/2018 9:19:45 AM
Copper	1.64	0.105	0.421		mg/Kg-dry	1	2/9/2018 9:19:45 AM
Iron	2010	0.211	0.421		mg/Kg-dry	1	2/9/2018 9:19:45 AM
Lead	3.16	0.211	0.421		mg/Kg-dry	1	2/9/2018 9:19:45 AM
Magnesium	76.4	0.105	0.421		mg/Kg-dry	1	2/9/2018 9:19:45 AM
Manganese	44.6	0.105	0.421		mg/Kg-dry	1	2/9/2018 9:19:45 AM
Nickel	1.33	0.105	0.421		mg/Kg-dry	1	2/9/2018 9:19:45 AM
Potassium	43.4	0.211	0.526		mg/Kg-dry	1	2/9/2018 9:19:45 AM
Selenium	ND	0.211	0.526	U	mg/Kg-dry	1	2/9/2018 9:19:45 AM
Silver	ND	0.105	0.421	U	mg/Kg-dry	1	2/9/2018 9:19:45 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 S. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 9:30:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
TOTAL METALS			**SW6010C**		**SW3050B**		Analyst: **JP**
Sodium	6.54	0.211	0.526		mg/Kg-dry	1	2/9/2018 9:19:45 AM
Thallium	ND	0.316	0.526	U	mg/Kg-dry	1	2/9/2018 9:19:45 AM
Vanadium	3.17	0.105	0.421		mg/Kg-dry	1	2/9/2018 9:19:45 AM
Zinc	5.00	0.105	0.421		mg/Kg-dry	1	2/9/2018 9:19:45 AM
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
Biphenyl	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
1,2,4-Trichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
1,2-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
1,3-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
1,4-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
2,4,5-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
2,4,6-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
2,4-Dichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
2,4-Dimethylphenol	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
2,4-Dinitrophenol	ND	53	530	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
2,4-Dinitrotoluene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
2,6-Dinitrotoluene	ND	53	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
2-Chloronaphthalene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
2-Chlorophenol	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
2-Methylnaphthalene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
2-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
2-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
2-Nitrophenol	ND	53	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
3+4-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
3,3´-Dichlorobenzidine	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
3-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
4,6-Dinitro-2-methylphenol	ND	53	530	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
4-Bromophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
4-Chloro-3-methylphenol	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
4-Chloroaniline	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
4-Chlorophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
4-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 S. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 9:30:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
4-Nitrophenol	ND	53	530	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Acenaphthene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Acenaphthylene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Acetophenone	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Aniline	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Anthracene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Atrazine	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Azobenzene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Benzaldehyde	ND	53	530	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Benzidine	ND	53	530	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Benzo(a)anthracene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Benzo(a)pyrene	ND	26	160	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Benzo(b)fluoranthene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Benzo(g,h,i)perylene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Benzo(k)fluoranthene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Benzoic acid	ND	53	530	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Benzyl alcohol	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Bis(2-chloroethoxy)methane	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Bis(2-chloroethyl)ether	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Bis(2-chloroisopropyl)ether	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Bis(2-ethylhexyl)phthalate	140	26	260	BJ	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Butyl benzyl phthalate	35	26	260	BJ	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Caprolactam	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Carbazole	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Chrysene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Di-n-butyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Di-n-octyl phthalate	ND	53	530	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Dibenzo(a,h)anthracene	ND	26	160	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Dibenzofuran	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Diethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Dimethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Fluoranthene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Fluorene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 S. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 9:30:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
Hexachlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Hexachlorobutadiene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Hexachlorocyclopentadiene	ND	53	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Hexachloroethane	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Indeno(1,2,3-c,d)pyrene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Isophorone	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
N-Nitrosodi-n-propylamine	ND	26	160	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
N-Nitrosodimethylamine	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
N-Nitrosodiphenylamine	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Naphthalene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Nitrobenzene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Parathion	ND	53	530	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Pentachlorophenol	ND	53	530	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Phenanthrene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Phenol	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Pyrene	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
Pyridine	ND	26	260	U	µg/Kg-dry	1	2/13/2018 4:25:00 AM
CYANIDE, TOTAL			**SW9012B**		**SW9012B**		Analyst: **STP**
Cyanide, Total & Amenable: Auto Colorimetric	ND	0.0526	0.105	U	mg/Kg-dry	1	2/9/2018 9:49:38 AM
TRIVALENT CHROMIUM			**SW6010C**				Analyst: **JP**
Chromium, Trivalent	3.82	0.105	0.421		mg/Kg-dry	1	2/9/2018
HEXAVALENT CHROMIUM			**SW7196A**		**SW3060A**		Analyst: **JaP**
Chromium, Hexavalent	ND	0.258	0.516	U	mg/Kg-dry	1	2/9/2018 9:30:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. West
Lab Order:	1802035	**Collection Date:**	2/6/2018 11:10:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-002A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,1,1-Trichloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,1,2,2-Tetrachloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,1,2-Trichloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,1-Dichloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,1-Dichloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,1-Dichloropropene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,2,3-Trichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,2,3-Trichloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,2,4,5-Tetramethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,2,4-Trichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,2,4-Trimethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,2-Dibromo-3-chloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,2-Dibromoethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,2-Dichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,2-Dichloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,2-Dichloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,3,5-Trimethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,3-Dichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,3-dichloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,4-Dichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
1,4-Dioxane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
2,2-Dichloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
2-Butanone	ND	5.3	11	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
2-Chloroethyl vinyl ether	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
2-Chlorotoluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
2-Hexanone	ND	5.3	11	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
2-Propanol	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
4-Chlorotoluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
4-Isopropyltoluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
4-Methyl-2-pentanone	ND	5.3	11	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Acetone	ND	5.3	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. West
Lab Order:	1802035	**Collection Date:**	2/6/2018 11:10:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-002A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
Benzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Bromobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Bromochloromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Bromodichloromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Bromoform	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Bromomethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Carbon disulfide	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Carbon tetrachloride	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Chlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Chlorodifluoromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Chloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Chloroform	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Chloromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
cis-1,2-Dichloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
cis-1,3-Dichloropropene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Cyclohexane	ND	2.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Dibromochloromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Dibromomethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Dichlorodifluoromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Diisopropyl ether	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Ethanol	ND	11	21	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Ethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Freon-114	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Hexachlorobutadiene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Isopropylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
m,p-Xylene	ND	2.1	11	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Methyl Acetate	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Methyl tert-butyl ether	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Methylene chloride	ND	5.3	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
n-Butylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
n-Propylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Naphthalene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
o-Xylene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. West
Lab Order:	1802035	**Collection Date:**	2/6/2018 11:10:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-002A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
p-Diethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
p-Ethyltoluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
sec-Butylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Styrene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
t-Butyl alcohol	ND	2.6	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
tert-Butylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Tetrachloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Toluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
trans-1,2-Dichloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
trans-1,3-Dichloropropene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Trichloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Trichlorofluoromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Vinyl acetate	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Vinyl chloride	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Xylenes, Total	ND	3.2	16	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Acrolein	ND	13	26	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM
Acrylonitrile	ND	1.1	5.3	U	µg/Kg-dry	1	2/8/2018 12:33:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. West
Lab Order:	1802035	**Collection Date:**	2/6/2018 11:10:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-002B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY			**SW7471B**		**SW7471B**		Analyst: **JP**
Mercury	0.00727	0.00727	0.0136	J	mg/Kg-dry	1	2/9/2018 10:46:11 AM
HERBICIDES SW-846 8151			**SW8151A**		**SW8151A**		Analyst: **SB**
2,4,5-T	ND	1.1	3.2	U	µg/Kg-dry	1	2/13/2018 5:42:00 PM
2,4,5-TP	ND	1.1	3.2	U	µg/Kg-dry	1	2/13/2018 5:42:00 PM
2,4-D	ND	1.1	3.2	U	µg/Kg-dry	1	2/13/2018 5:42:00 PM
Dicamba	ND	1.1	3.2	U	µg/Kg-dry	1	2/13/2018 5:42:00 PM
PCB'S AS AROCLORS SW-846 METHOD 8082			**SW8082A**		**SW3546**		Analyst: **SB**
Aroclor 1016	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:41:00 PM
Aroclor 1221	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:41:00 PM
Aroclor 1232	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:41:00 PM
Aroclor 1242	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:41:00 PM
Aroclor 1248	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:41:00 PM
Aroclor 1254	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:41:00 PM
Aroclor 1260	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:41:00 PM
Aroclor 1262	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:41:00 PM
Aroclor 1268	ND	10	21	U	µg/Kg-dry	1	2/13/2018 7:41:00 PM
PESTICIDES SW-846 METHOD 8081			**SW8081B**		**SW3546**		Analyst: **SB**
4,4´-DDD	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
4,4´-DDE	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
4,4´-DDT	1.6	1.0	2.6	J	µg/Kg-dry	1	2/12/2018 10:02:00 PM
Aldrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
alpha-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
alpha-Chlordane	ND	6.2	10	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
beta-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
Chlorobenzilate	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
DBCP	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
delta-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
Dieldrin	ND	1.0	2.6	PU	µg/Kg-dry	1	2/12/2018 10:02:00 PM
Endosulfan I	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
Endosulfan II	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
Endosulfan sulfate	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. West
Lab Order:	1802035	**Collection Date:**	2/6/2018 11:10:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-002B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			**SW8081B**		**SW3546**		Analyst: **SB**
Endrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
Endrin aldehyde	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
Endrin ketone	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
gamma-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
gamma-Chlordane	ND	6.2	10	PU	µg/Kg-dry	1	2/12/2018 10:02:00 PM
Heptachlor	ND	2.1	3.1	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
Heptachlor epoxide	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
Hexachlorobenzene	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
Hexachlorocyclopentadiene	ND	3.1	3.1	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
Methoxychlor	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
Toxaphene	ND	13	26	U	µg/Kg-dry	1	2/12/2018 10:02:00 PM
PERCENT MOISTURE			**D2216**				Analyst: **KK**
Percent Moisture	6.77	0	1.00		wt%	1	2/8/2018 9:31:18 AM
TOTAL METALS			**SW6010C**		**SW3050B**		Analyst: **JP**
Aluminum	1600	0.104	0.414		mg/Kg-dry	1	2/9/2018 9:21:51 AM
Antimony	ND	0.207	0.518	U	mg/Kg-dry	1	2/9/2018 9:21:51 AM
Arsenic	2.65	0.207	0.518		mg/Kg-dry	1	2/9/2018 9:21:51 AM
Barium	4.28	0.207	0.414		mg/Kg-dry	1	2/9/2018 9:21:51 AM
Beryllium	ND	0.104	0.414	U	mg/Kg-dry	1	2/9/2018 9:21:51 AM
Cadmium	ND	0.104	0.414	U	mg/Kg-dry	1	2/9/2018 9:21:51 AM
Calcium	88.7	0.207	0.518		mg/Kg-dry	1	2/9/2018 9:21:51 AM
Chromium	6.72	0.104	0.414		mg/Kg-dry	1	2/9/2018 9:21:51 AM
Cobalt	ND	0.104	0.414	U	mg/Kg-dry	1	2/9/2018 9:21:51 AM
Copper	2.81	0.104	0.414		mg/Kg-dry	1	2/9/2018 9:21:51 AM
Iron	7200	2.07	4.14	D	mg/Kg-dry	10	2/9/2018 9:45:44 AM
Lead	52.5	0.207	0.414		mg/Kg-dry	1	2/9/2018 9:21:51 AM
Magnesium	173	0.104	0.414		mg/Kg-dry	1	2/9/2018 9:21:51 AM
Manganese	20.1	0.104	0.414		mg/Kg-dry	1	2/9/2018 9:21:51 AM
Nickel	2.65	0.104	0.414		mg/Kg-dry	1	2/9/2018 9:21:51 AM
Potassium	90.2	0.207	0.518		mg/Kg-dry	1	2/9/2018 9:21:51 AM
Selenium	ND	0.207	0.518	U	mg/Kg-dry	1	2/9/2018 9:21:51 AM
Silver	ND	0.104	0.414	U	mg/Kg-dry	1	2/9/2018 9:21:51 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. West
Lab Order:	1802035	**Collection Date:**	2/6/2018 11:10:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-002B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
TOTAL METALS			**SW6010C**		**SW3050B**		Analyst: **JP**
Sodium	12.9	0.207	0.518		mg/Kg-dry	1	2/9/2018 9:21:51 AM
Thallium	ND	0.311	0.518	U	mg/Kg-dry	1	2/9/2018 9:21:51 AM
Vanadium	10.1	0.104	0.414		mg/Kg-dry	1	2/9/2018 9:21:51 AM
Zinc	27.2	0.104	0.414		mg/Kg-dry	1	2/9/2018 9:21:51 AM
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
Biphenyl	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
1,2,4-Trichlorobenzene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
1,2-Dichlorobenzene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
1,3-Dichlorobenzene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
1,4-Dichlorobenzene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
2,4,5-Trichlorophenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
2,4,6-Trichlorophenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
2,4-Dichlorophenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
2,4-Dimethylphenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
2,4-Dinitrophenol	ND	54	540	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
2,4-Dinitrotoluene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
2,6-Dinitrotoluene	ND	54	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
2-Chloronaphthalene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
2-Chlorophenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
2-Methylnaphthalene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
2-Methylphenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
2-Nitroaniline	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
2-Nitrophenol	ND	54	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
3+4-Methylphenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
3,3´-Dichlorobenzidine	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
3-Nitroaniline	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
4,6-Dinitro-2-methylphenol	ND	54	540	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
4-Bromophenyl phenyl ether	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
4-Chloro-3-methylphenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
4-Chloroaniline	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
4-Chlorophenyl phenyl ether	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
4-Nitroaniline	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. West
Lab Order:	1802035	**Collection Date:**	2/6/2018 11:10:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-002B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
4-Nitrophenol	ND	54	540	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Acenaphthene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Acenaphthylene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Acetophenone	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Aniline	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Anthracene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Atrazine	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Azobenzene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Benzaldehyde	ND	54	540	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Benzidine	ND	54	540	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Benzo(a)anthracene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Benzo(a)pyrene	ND	27	160	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Benzo(b)fluoranthene	28	27	270	J	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Benzo(g,h,i)perylene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Benzo(k)fluoranthene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Benzoic acid	ND	54	540	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Benzyl alcohol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Bis(2-chloroethoxy)methane	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Bis(2-chloroethyl)ether	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Bis(2-chloroisopropyl)ether	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Bis(2-ethylhexyl)phthalate	150	27	270	BJ	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Butyl benzyl phthalate	39	27	270	BJ	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Caprolactam	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Carbazole	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Chrysene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Di-n-butyl phthalate	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Di-n-octyl phthalate	ND	54	540	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Dibenzo(a,h)anthracene	ND	27	160	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Dibenzofuran	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Diethyl phthalate	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Dimethyl phthalate	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Fluoranthene	32	27	270	J	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Fluorene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. West
Lab Order:	1802035	**Collection Date:**	2/6/2018 11:10:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-002B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
Hexachlorobenzene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Hexachlorobutadiene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Hexachlorocyclopentadiene	ND	54	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Hexachloroethane	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Indeno(1,2,3-c,d)pyrene	29	27	270	J	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Isophorone	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
N-Nitrosodi-n-propylamine	ND	27	160	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
N-Nitrosodimethylamine	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
N-Nitrosodiphenylamine	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Naphthalene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Nitrobenzene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Parathion	ND	54	540	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Pentachlorophenol	ND	54	540	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Phenanthrene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Phenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Pyrene	30	27	270	J	µg/Kg-dry	1	2/13/2018 5:48:00 AM
Pyridine	ND	27	270	U	µg/Kg-dry	1	2/13/2018 5:48:00 AM
CYANIDE, TOTAL			**SW9012B**		**SW9012B**		Analyst: **STP**
Cyanide, Total & Amenable: Auto Colorimetric	ND	0.0536	0.107	U	mg/Kg-dry	1	2/9/2018 9:50:30 AM
TRIVALENT CHROMIUM			**SW6010C**				Analyst: **JP**
Chromium, Trivalent	6.72	0.104	0.414		mg/Kg-dry	1	2/9/2018
HEXAVALENT CHROMIUM			**SW7196A**		**SW3060A**		Analyst: **JaP**
Chromium, Hexavalent	ND	0.265	0.530	U	mg/Kg-dry	1	2/9/2018 9:30:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 Center
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:35:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-003A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,1,1-Trichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,1,2,2-Tetrachloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,1,2-Trichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,1-Dichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,1-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,1-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,2,3-Trichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,2,3-Trichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,2,4,5-Tetramethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,2,4-Trichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,2,4-Trimethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,2-Dibromo-3-chloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,2-Dibromoethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,2-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,2-Dichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,2-Dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,3,5-Trimethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,3-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,3-dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,4-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
1,4-Dioxane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
2,2-Dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
2-Butanone	ND	5.2	10	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
2-Chloroethyl vinyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
2-Chlorotoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
2-Hexanone	ND	5.2	10	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
2-Propanol	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
4-Chlorotoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
4-Isopropyltoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
4-Methyl-2-pentanone	ND	5.2	10	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Acetone	ND	5.2	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 Center
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:35:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-003A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
Benzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Bromobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Bromochloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Bromodichloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Bromoform	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Bromomethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Carbon disulfide	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Carbon tetrachloride	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Chlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Chlorodifluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Chloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Chloroform	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Chloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
cis-1,2-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
cis-1,3-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Cyclohexane	ND	2.1	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Dibromochloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Dibromomethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Dichlorodifluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Diisopropyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Ethanol	ND	10	21	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Ethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Freon-114	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Hexachlorobutadiene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Isopropylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
m,p-Xylene	ND	2.1	10	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Methyl Acetate	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Methyl tert-butyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Methylene chloride	ND	5.2	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
n-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
n-Propylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Naphthalene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
o-Xylene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 Center
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:35:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-003A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
p-Diethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
p-Ethyltoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
sec-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Styrene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
t-Butyl alcohol	ND	2.6	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
tert-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Tetrachloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Toluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
trans-1,2-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
trans-1,3-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Trichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Trichlorofluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Vinyl acetate	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Vinyl chloride	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Xylenes, Total	ND	3.1	16	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Acrolein	ND	13	26	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM
Acrylonitrile	ND	1.0	5.2	U	µg/Kg-dry	1	2/8/2018 1:04:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 Center
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:35:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-003B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY			**SW7471B**		**SW7471B**		Analyst: **JP**
Mercury	ND	0.00710	0.0133	U	mg/Kg-dry	1	2/9/2018 10:48:20 AM
HERBICIDES SW-846 8151			**SW8151A**		**SW8151A**		Analyst: **SB**
2,4,5-T	ND	1.1	3.2	U	µg/Kg-dry	1	2/13/2018 6:00:00 PM
2,4,5-TP	ND	1.1	3.2	U	µg/Kg-dry	1	2/13/2018 6:00:00 PM
2,4-D	3.3	1.1	3.2	P	µg/Kg-dry	1	2/13/2018 6:00:00 PM
Dicamba	ND	1.1	3.2	U	µg/Kg-dry	1	2/13/2018 6:00:00 PM
PCB'S AS AROCLORS SW-846 METHOD 8082			**SW8082A**		**SW3546**		Analyst: **SB**
Aroclor 1016	ND	10	21	U	µg/Kg-dry	1	2/13/2018 8:10:00 PM
Aroclor 1221	ND	10	21	U	µg/Kg-dry	1	2/13/2018 8:10:00 PM
Aroclor 1232	ND	10	21	U	µg/Kg-dry	1	2/13/2018 8:10:00 PM
Aroclor 1242	ND	10	21	U	µg/Kg-dry	1	2/13/2018 8:10:00 PM
Aroclor 1248	ND	10	21	U	µg/Kg-dry	1	2/13/2018 8:10:00 PM
Aroclor 1254	ND	10	21	U	µg/Kg-dry	1	2/13/2018 8:10:00 PM
Aroclor 1260	ND	10	21	U	µg/Kg-dry	1	2/13/2018 8:10:00 PM
Aroclor 1262	ND	10	21	U	µg/Kg-dry	1	2/13/2018 8:10:00 PM
Aroclor 1268	ND	10	21	U	µg/Kg-dry	1	2/13/2018 8:10:00 PM
PESTICIDES SW-846 METHOD 8081			**SW8081B**		**SW3546**		Analyst: **SB**
4,4´-DDD	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
4,4´-DDE	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
4,4´-DDT	1.7	1.0	2.6	J	µg/Kg-dry	1	2/12/2018 10:20:00 PM
Aldrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
alpha-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
alpha-Chlordane	ND	6.3	10	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
beta-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
Chlorobenzilate	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
DBCP	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
delta-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
Dieldrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
Endosulfan I	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
Endosulfan II	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
Endosulfan sulfate	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 Center
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:35:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-003B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			**SW8081B**		**SW3546**		Analyst: **SB**
Endrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
Endrin aldehyde	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
Endrin ketone	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
gamma-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
gamma-Chlordane	ND	6.3	10	PU	µg/Kg-dry	1	2/12/2018 10:20:00 PM
Heptachlor	ND	2.1	3.1	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
Heptachlor epoxide	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
Hexachlorobenzene	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
Hexachlorocyclopentadiene	ND	3.1	3.1	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
Methoxychlor	ND	1.0	2.6	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
Toxaphene	ND	13	26	U	µg/Kg-dry	1	2/12/2018 10:20:00 PM
PERCENT MOISTURE			**D2216**				Analyst: **KK**
Percent Moisture	7.67	0	1.00		wt%	1	2/8/2018 9:31:18 AM
TOTAL METALS			**SW6010C**		**SW3050B**		Analyst: **JP**
Aluminum	1500	0.0981	0.392		mg/Kg-dry	1	2/9/2018 9:23:57 AM
Antimony	ND	0.196	0.491	U	mg/Kg-dry	1	2/9/2018 9:23:57 AM
Arsenic	3.02	0.196	0.491		mg/Kg-dry	1	2/9/2018 9:23:57 AM
Barium	3.73	0.196	0.392		mg/Kg-dry	1	2/9/2018 9:23:57 AM
Beryllium	ND	0.0981	0.392	U	mg/Kg-dry	1	2/9/2018 9:23:57 AM
Cadmium	ND	0.0981	0.392	U	mg/Kg-dry	1	2/9/2018 9:23:57 AM
Calcium	68.2	0.196	0.491		mg/Kg-dry	1	2/9/2018 9:23:57 AM
Chromium	7.49	0.0981	0.392		mg/Kg-dry	1	2/9/2018 9:23:57 AM
Cobalt	ND	0.0981	0.392	U	mg/Kg-dry	1	2/9/2018 9:23:57 AM
Copper	2.86	0.0981	0.392		mg/Kg-dry	1	2/9/2018 9:23:57 AM
Iron	12600	1.96	3.92	D	mg/Kg-dry	10	2/9/2018 9:47:50 AM
Lead	25.0	0.196	0.392		mg/Kg-dry	1	2/9/2018 9:23:57 AM
Magnesium	88.6	0.0981	0.392		mg/Kg-dry	1	2/9/2018 9:23:57 AM
Manganese	74.6	0.0981	0.392		mg/Kg-dry	1	2/9/2018 9:23:57 AM
Nickel	3.05	0.0981	0.392		mg/Kg-dry	1	2/9/2018 9:23:57 AM
Potassium	58.7	0.196	0.491		mg/Kg-dry	1	2/9/2018 9:23:57 AM
Selenium	ND	0.196	0.491	U	mg/Kg-dry	1	2/9/2018 9:23:57 AM
Silver	ND	0.0981	0.392	U	mg/Kg-dry	1	2/9/2018 9:23:57 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 Center
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:35:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-003B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
TOTAL METALS			**SW6010C**		**SW3050B**		Analyst: **JP**
Sodium	9.69	0.196	0.491		mg/Kg-dry	1	2/9/2018 9:23:57 AM
Thallium	ND	0.294	0.491	U	mg/Kg-dry	1	2/9/2018 9:23:57 AM
Vanadium	12.4	0.0981	0.392		mg/Kg-dry	1	2/9/2018 9:23:57 AM
Zinc	13.6	0.0981	0.392		mg/Kg-dry	1	2/9/2018 9:23:57 AM
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
Biphenyl	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
1,2,4-Trichlorobenzene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
1,2-Dichlorobenzene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
1,3-Dichlorobenzene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
1,4-Dichlorobenzene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
2,4,5-Trichlorophenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
2,4,6-Trichlorophenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
2,4-Dichlorophenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
2,4-Dimethylphenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
2,4-Dinitrophenol	ND	54	540	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
2,4-Dinitrotoluene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
2,6-Dinitrotoluene	ND	54	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
2-Chloronaphthalene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
2-Chlorophenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
2-Methylnaphthalene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
2-Methylphenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
2-Nitroaniline	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
2-Nitrophenol	ND	54	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
3+4-Methylphenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
3,3´-Dichlorobenzidine	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
3-Nitroaniline	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
4,6-Dinitro-2-methylphenol	ND	54	540	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
4-Bromophenyl phenyl ether	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
4-Chloro-3-methylphenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
4-Chloroaniline	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
4-Chlorophenyl phenyl ether	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
4-Nitroaniline	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 Center
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:35:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-003B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
4-Nitrophenol	ND	54	540	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Acenaphthene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Acenaphthylene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Acetophenone	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Aniline	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Anthracene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Atrazine	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Azobenzene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Benzaldehyde	ND	54	540	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Benzidine	ND	54	540	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Benzo(a)anthracene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Benzo(a)pyrene	ND	27	160	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Benzo(b)fluoranthene	31	27	270	J	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Benzo(g,h,i)perylene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Benzo(k)fluoranthene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Benzoic acid	ND	54	540	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Benzyl alcohol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Bis(2-chloroethoxy)methane	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Bis(2-chloroethyl)ether	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Bis(2-chloroisopropyl)ether	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Bis(2-ethylhexyl)phthalate	150	27	270	BJ	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Butyl benzyl phthalate	39	27	270	BJ	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Caprolactam	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Carbazole	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Chrysene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Di-n-butyl phthalate	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Di-n-octyl phthalate	ND	54	540	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Dibenzo(a,h)anthracene	ND	27	160	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Dibenzofuran	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Diethyl phthalate	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Dimethyl phthalate	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Fluoranthene	28	27	270	J	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Fluorene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 Center
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:35:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-003B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
Hexachlorobenzene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Hexachlorobutadiene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Hexachlorocyclopentadiene	ND	54	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Hexachloroethane	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Indeno(1,2,3-c,d)pyrene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Isophorone	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
N-Nitrosodi-n-propylamine	ND	27	160	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
N-Nitrosodimethylamine	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
N-Nitrosodiphenylamine	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Naphthalene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Nitrobenzene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Parathion	ND	54	540	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Pentachlorophenol	ND	54	540	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Phenanthrene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Phenol	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Pyrene	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
Pyridine	ND	27	270	U	µg/Kg-dry	1	2/13/2018 6:15:00 AM
CYANIDE, TOTAL			**SW9012B**		**SW9012B**		Analyst: **STP**
Cyanide, Total & Amenable: Auto Colorimetric	ND	0.0542	0.108	U	mg/Kg-dry	1	2/9/2018 9:51:21 AM
TRIVALENT CHROMIUM			**SW6010C**				Analyst: **JP**
Chromium, Trivalent	7.49	0.0981	0.392		mg/Kg-dry	1	2/9/2018
HEXAVALENT CHROMIUM			**SW7196A**		**SW3060A**		Analyst: **JaP**
Chromium, Hexavalent	ND	0.268	0.535	U	mg/Kg-dry	1	2/9/2018 9:30:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:15:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-004A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **KSS**
1,1,1,2-Tetrachloroethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,1,1-Trichloroethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,1,2,2-Tetrachloroethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethan	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,1,2-Trichloroethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,1-Dichloroethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,1-Dichloroethene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,1-Dichloropropene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,2,3-Trichlorobenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,2,3-Trichloropropane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,2,4-Trichlorobenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,2,4-Trimethylbenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,2-Dibromo-3-chloropropane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,2-Dibromoethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,2-Dichlorobenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,2-Dichloroethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,2-Dichloropropane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,3,5-Trimethylbenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,3-Dichlorobenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,3-dichloropropane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,4-Dichlorobenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
1,4-Dioxane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
2,2-Dichloropropane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
2-Butanone	ND	5.6	11	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
2-Chloroethyl vinyl ether	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
2-Chlorotoluene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
2-Hexanone	ND	5.6	11	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
2-Propanol	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
4-Chlorotoluene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
4-Isopropyltoluene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
4-Methyl-2-pentanone	ND	5.6	11	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Acetone	ND	5.6	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:15:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-004A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **KSS**
Benzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Bromobenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Bromochloromethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Bromodichloromethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Bromoform	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Bromomethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Carbon disulfide	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Carbon tetrachloride	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Chlorobenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Chlorodifluoromethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Chloroethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Chloroform	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Chloromethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
cis-1,2-Dichloroethene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
cis-1,3-Dichloropropene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Cyclohexane	ND	2.3	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Dibromochloromethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Dibromomethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Dichlorodifluoromethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Diisopropyl ether	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Ethanol	ND	11	23	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Ethylbenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Freon-114	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Hexachlorobutadiene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Isopropylbenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
m,p-Xylene	ND	2.3	11	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Methyl Acetate	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Methyl tert-butyl ether	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Methylene chloride	ND	5.6	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
n-Butylbenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
n-Propylbenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Naphthalene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
o-Xylene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:15:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-004A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **KSS**
p-Diethylbenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
p-Ethyltoluene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
sec-Butylbenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Styrene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
t-Butyl alcohol	ND	2.8	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
tert-Butylbenzene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Tetrachloroethene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Toluene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
trans-1,2-Dichloroethene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
trans-1,3-Dichloropropene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Trichloroethene	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Trichlorofluoromethane	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Vinyl acetate	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Vinyl chloride	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Xylenes, Total	ND	3.4	17	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Acrolein	ND	14	28	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM
Acrylonitrile	ND	1.1	5.6	U	µg/Kg-dry	1	2/8/2018 12:24:00 PM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:15:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-004B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY			**SW7471B**		**SW7471B**		Analyst: **JP**
Mercury	ND	0.00691	0.0130	U	mg/Kg-dry	1	2/9/2018 10:54:44 AM
HERBICIDES SW-846 8151			**SW8151A**		**SW8151A**		Analyst: **SB**
2,4,5-T	ND	1.1	3.4	U	µg/Kg-dry	1	2/13/2018 6:18:00 PM
2,4,5-TP	ND	1.1	3.4	U	µg/Kg-dry	1	2/13/2018 6:18:00 PM
2,4-D	ND	1.1	3.4	U	µg/Kg-dry	1	2/13/2018 6:18:00 PM
Dicamba	ND	1.1	3.4	U	µg/Kg-dry	1	2/13/2018 6:18:00 PM
PCB'S AS AROCLORS SW-846 METHOD 8082			**SW8082A**		**SW3546**		Analyst: **SB**
Aroclor 1016	ND	11	22	U	µg/Kg-dry	1	2/13/2018 8:40:00 PM
Aroclor 1221	ND	11	22	U	µg/Kg-dry	1	2/13/2018 8:40:00 PM
Aroclor 1232	ND	11	22	U	µg/Kg-dry	1	2/13/2018 8:40:00 PM
Aroclor 1242	ND	11	22	U	µg/Kg-dry	1	2/13/2018 8:40:00 PM
Aroclor 1248	ND	11	22	U	µg/Kg-dry	1	2/13/2018 8:40:00 PM
Aroclor 1254	ND	11	22	U	µg/Kg-dry	1	2/13/2018 8:40:00 PM
Aroclor 1260	ND	11	22	U	µg/Kg-dry	1	2/13/2018 8:40:00 PM
Aroclor 1262	ND	11	22	U	µg/Kg-dry	1	2/13/2018 8:40:00 PM
Aroclor 1268	ND	11	22	U	µg/Kg-dry	1	2/13/2018 8:40:00 PM
PESTICIDES SW-846 METHOD 8081			**SW8081B**		**SW3546**		Analyst: **SB**
4,4´-DDD	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
4,4´-DDE	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
4,4´-DDT	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
Aldrin	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
alpha-BHC	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
alpha-Chlordane	ND	6.7	11	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
beta-BHC	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
Chlorobenzilate	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
DBCP	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
delta-BHC	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
Dieldrin	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
Endosulfan I	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
Endosulfan II	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
Endosulfan sulfate	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:15:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-004B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			**SW8081B**		**SW3546**		Analyst: **SB**
Endrin	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
Endrin aldehyde	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
Endrin ketone	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
gamma-BHC	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
gamma-Chlordane	ND	6.7	11	PU	µg/Kg-dry	1	2/12/2018 10:38:00 PM
Heptachlor	ND	2.2	3.3	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
Heptachlor epoxide	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
Hexachlorobenzene	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
Hexachlorocyclopentadiene	ND	3.3	3.3	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
Methoxychlor	ND	1.1	2.8	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
Toxaphene	ND	14	28	U	µg/Kg-dry	1	2/12/2018 10:38:00 PM
PERCENT MOISTURE			**D2216**				Analyst: **KK**
Percent Moisture	13.0	0	1.00		wt%	1	2/8/2018 9:31:18 AM
TOTAL METALS			**SW6010C**		**SW3050B**		Analyst: **JP**
Aluminum	1780	0.111	0.445		mg/Kg-dry	1	2/9/2018 9:26:04 AM
Antimony	ND	0.223	0.557	U	mg/Kg-dry	1	2/9/2018 9:26:04 AM
Arsenic	5.00	0.223	0.557		mg/Kg-dry	1	2/9/2018 9:26:04 AM
Barium	3.55	0.223	0.445		mg/Kg-dry	1	2/9/2018 9:26:04 AM
Beryllium	ND	0.111	0.445	U	mg/Kg-dry	1	2/9/2018 9:26:04 AM
Cadmium	ND	0.111	0.445	U	mg/Kg-dry	1	2/9/2018 9:26:04 AM
Calcium	62.5	0.223	0.557		mg/Kg-dry	1	2/9/2018 9:26:04 AM
Chromium	24.8	0.111	0.445		mg/Kg-dry	1	2/9/2018 9:26:04 AM
Cobalt	ND	0.111	0.445	U	mg/Kg-dry	1	2/9/2018 9:26:04 AM
Copper	3.16	0.111	0.445		mg/Kg-dry	1	2/9/2018 9:26:04 AM
Iron	19000	2.23	4.45	D	mg/Kg-dry	10	2/9/2018 9:49:56 AM
Lead	6.26	0.223	0.445		mg/Kg-dry	1	2/9/2018 9:26:04 AM
Magnesium	89.6	0.111	0.445		mg/Kg-dry	1	2/9/2018 9:26:04 AM
Manganese	53.5	0.111	0.445		mg/Kg-dry	1	2/9/2018 9:26:04 AM
Nickel	3.00	0.111	0.445		mg/Kg-dry	1	2/9/2018 9:26:04 AM
Potassium	77.6	0.223	0.557		mg/Kg-dry	1	2/9/2018 9:26:04 AM
Selenium	ND	0.223	0.557	U	mg/Kg-dry	1	2/9/2018 9:26:04 AM
Silver	ND	0.111	0.445	U	mg/Kg-dry	1	2/9/2018 9:26:04 AM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, New York, Zip - 11735
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Original

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:15:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-004B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
TOTAL METALS			**SW6010C**		**SW3050B**		Analyst: **JP**
Sodium	9.62	0.223	0.557		mg/Kg-dry	1	2/9/2018 9:26:04 AM
Thallium	ND	0.334	0.557	U	mg/Kg-dry	1	2/9/2018 9:26:04 AM
Vanadium	17.5	0.111	0.445		mg/Kg-dry	1	2/9/2018 9:26:04 AM
Zinc	13.4	0.111	0.445		mg/Kg-dry	1	2/9/2018 9:26:04 AM
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
Biphenyl	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
1,2,4-Trichlorobenzene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
1,2-Dichlorobenzene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
1,3-Dichlorobenzene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
1,4-Dichlorobenzene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
2,4,5-Trichlorophenol	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
2,4,6-Trichlorophenol	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
2,4-Dichlorophenol	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
2,4-Dimethylphenol	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
2,4-Dinitrophenol	ND	57	570	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
2,4-Dinitrotoluene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
2,6-Dinitrotoluene	ND	57	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
2-Chloronaphthalene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
2-Chlorophenol	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
2-Methylnaphthalene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
2-Methylphenol	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
2-Nitroaniline	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
2-Nitrophenol	ND	57	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
3+4-Methylphenol	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
3,3´-Dichlorobenzidine	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
3-Nitroaniline	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
4,6-Dinitro-2-methylphenol	ND	57	570	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
4-Bromophenyl phenyl ether	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
4-Chloro-3-methylphenol	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
4-Chloroaniline	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
4-Chlorophenyl phenyl ether	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
4-Nitroaniline	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:15:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-004B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
4-Nitrophenol	ND	57	570	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Acenaphthene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Acenaphthylene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Acetophenone	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Aniline	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Anthracene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Atrazine	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Azobenzene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Benzaldehyde	ND	57	570	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Benzidine	ND	57	570	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Benzo(a)anthracene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Benzo(a)pyrene	ND	29	170	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Benzo(b)fluoranthene	42	29	290	J	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Benzo(g,h,i)perylene	30	29	290	J	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Benzo(k)fluoranthene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Benzoic acid	ND	57	570	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Benzyl alcohol	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Bis(2-chloroethoxy)methane	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Bis(2-chloroethyl)ether	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Bis(2-chloroisopropyl)ether	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Bis(2-ethylhexyl)phthalate	170	29	290	BJ	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Butyl benzyl phthalate	49	29	290	BJ	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Caprolactam	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Carbazole	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Chrysene	33	29	290	J	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Di-n-butyl phthalate	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Di-n-octyl phthalate	ND	57	570	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Dibenzo(a,h)anthracene	ND	29	170	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Dibenzofuran	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Diethyl phthalate	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Dimethyl phthalate	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Fluoranthene	52	29	290	J	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Fluorene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM

American Analytical Laboratories, LLC.

Date: *14-Feb-18*

ELAP ID : 11418

CLIENT:	Coastal Environmental Group	**Client Sample ID:**	TOB #495 N. East
Lab Order:	1802035	**Collection Date:**	2/6/2018 10:15:00 AM
Project:	TOB Basin #495, Arthur Ave, Bethpage, NY	**Matrix:**	SOIL
Lab ID:	1802035-004B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
Hexachlorobenzene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Hexachlorobutadiene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Hexachlorocyclopentadiene	ND	57	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Hexachloroethane	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Indeno(1,2,3-c,d)pyrene	33	29	290	J	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Isophorone	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
N-Nitrosodi-n-propylamine	ND	29	170	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
N-Nitrosodimethylamine	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
N-Nitrosodiphenylamine	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Naphthalene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Nitrobenzene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Parathion	ND	57	570	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Pentachlorophenol	ND	57	570	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Phenanthrene	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Phenol	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Pyrene	44	29	290	J	µg/Kg-dry	1	2/13/2018 6:43:00 AM
Pyridine	ND	29	290	U	µg/Kg-dry	1	2/13/2018 6:43:00 AM
CYANIDE, TOTAL			**SW9012B**		**SW9012B**		Analyst: **STP**
Cyanide, Total & Amenable: Auto Colorimetric	ND	0.0575	0.115	U	mg/Kg-dry	1	2/9/2018 9:52:12 AM
TRIVALENT CHROMIUM			**SW6010C**				Analyst: **JP**
Chromium, Trivalent	24.8	0.111	0.445		mg/Kg-dry	1	2/9/2018
HEXAVALENT CHROMIUM			**SW7196A**		**SW3060A**		Analyst: **JaP**
Chromium, Hexavalent	ND	0.282	0.563	U	mg/Kg-dry	1	2/9/2018 9:30:00 AM

Appendix D
Field Inspection Reports

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February 27, 2018

Field Construction Oversight Letter Report
Former NWIRP Bethpage Facility
Arthur Avenue Basin (#495) Restoration Project
Bethpage, NY
Project # 112G05702 Task 04

This Field Mid-Construction Oversight Letter Report provides results of the field inspection of the on-going storm water collection and drainage basin number 495 construction and restoration work at Arthur Avenue Bethpage, New York. The field inspection work was conducted by Allen Polmann of Tetra Tech on Monday and Tuesday, February 19 and February 20, 2018. RAYCO estimated the work to be completed by the end of March 2018.

The final field inspection and summary report will be conducted upon completion of the basin restoration work.

General Notes

Allen Polmann (AP) of Tetra Tech arrives at the site on February 19, 2018 at 1230. AP met with Greg Pearman, (GP) of Koman Government Solutions, LLC Facilities/Navy Quality Assurance Manager, to unlock gate and gain site access. Conducted site walk, obtained photo documentation and conducted several shallow hand test pits.

AP of Tetra Tech arrives at the site on February 20, 2018 at 0830. AP met with Ray Jr., and Randy of the RAYCO crew. AP conducted a site walk and obtained additional photo documentation.

Site Work Activity Designations

The site's primary work activities and estimated completion status are designated as indicated below:

Work Description	Estimated Current Completion Status
1. Access Ramp Construction	**Completed**
2. Clearing, Grubbing and Offsite Disposal	95% Completed
3. Trash Removal and Offsite Disposal	95% Completed
4. Excavation of Deleterious Materials at Arthur Ave Outfall	0% Completed
5. Excavation of Deleterious Materials at Broadway Ave Outfall	**Completed**
6. Clear Sludge Material at Broadway Ave Outfall	**Completed**
7. Excavation of Deleterious Materials Remainder of Basin	50% Completed
8. Offsite Disposal of Deleterious Materials	0% Completed
9. Rip Rap Placement at Broadway Outfall	0% Completed
10. Restore Fill Material Over Underground Electric Lines	0% Completed
11. Installation of Staff Gauge	0% Completed
12. Final Site Clean-up and Demobilization	0% Completed

Summary of Field Work/Observations (February 19, 2018)

GP informed AP that the site was closed today due to the Presidents Day holiday, therefore the RAYCO crew will be onsite tomorrow February 20, 2018. GP unlocked the site gate so that AP could complete the scheduled site walk. The basin was relatively free of surface water and the excavated sandy bottom provided a firm base to walk on. The weather conditions at the time of the field inspection included light rain and fog. Intermittent snow covered areas were present at the site.

Field observations confirmed surface water was present at the un-scraped northwestern corner of basin. Groundwater was present at approximately two to three feet below the ground surface near the Arthur Avenue Outfall location. Groundwater and surface water was not present in the eastern section of the basin. The black, deposited, deleterious materials within the un-scraped section of the basin were wet and slippery, therefore extra caution was used while walking on these materials.

AP completed several hand tests pits between the existing machine test pits and completed photo documentation of the existing site conditions. The field inspection site photos are presented in Attachment A. AP also included a field sketch depicting approximated locations of excavation boundaries, test pit and stock piled soil locations (see attached).

Five shallow excavator test pits (TPs) and two hand TPs were excavated across the northern section of the basin to access the thickness of the deleterious materials deposits as indicated below. The field sketch presents the TP identification and location and Attachment A presents the associated photos:

- Excavator TP #1: Field inspection indicate deposit thickness is 6 to 8-inches at this location
- Excavator TP #2: Field inspection indicate deposit thickness is 2 to 4-inches at this location
- Excavator TP #3: Field inspection indicate deposit thickness is 2 to 4-inches at this location
- Hand TP A: Field inspection indicate deposit thickness is 10 to 12-inches at this location
- Excavator TP #4: Field inspection indicate deposit thickness is 4 to 6-inches at this location
- Hand TP B: Field inspection indicate deposit thickness is 4 to 6-inches at this location
- Excavator TP #5: Field inspection indicate deposit thickness is 2 to 4-inches at this location

AP departs the site @1615 on February 19, 2018.

Summary of Field Work/Observations (February 20, 2018)

Weather conditions at the time of the field inspection included intermittent light rain and fog. Field observations confirmed the previously observed snow cover across the site and surface water ponding were no longer present near the northwest corner of the basin. Groundwater was present at approximately two to three feet below the ground surface near the Arthur Avenue Outfall location. Groundwater and surface water was not present in the eastern section of the basin.

Ray of RAYCO informed AP that the field work has been going well except for weather-related delays and anticipates the project should be completed by the end of March 2108. The estimated project completion schedule is weather dependent. RAYCO drove onto the site with a truck holding a 20-cubic yard dumpster.

Ray informed AP the remaining site trash cleanup work would be conducted throughout the morning hours and RAYCO would fill the 20-cubic yard dumpster with excavated materials located along the base of the access road sometime in the afternoon. Ray also informed AP that to date, all basin material soil sampling results have been non-detect for all analyzed parameters.

AP departs the site @1100 on February 20, 2018.

Site Work Description (see Attachment A for photo documentation)

Access Ramp Construction:

The basin access ramp has been completed along the eastern edge of the basin. Excavated materials have been deposited along the ramp walls in accordance with the approved December 2017 Coastal Work Plan to allow excess water to drain so that it can be transported offsite for disposal.

Clearing, Grubbing and Offsite Disposal:

The basin clearing, grubbing and offsite disposal is approximately 95% complete to date with some limited amounts of brush, branches and small tree trunks requiring offsite disposal.

Trash Removal and Offsite Disposal:

The basin trash removal and offsite disposal is approximately 95% complete to date with limited amounts of trash requiring offsite disposal.

Excavation of Deleterious Materials at Arthur Avenue Outfall:

Deposited materials have formed a small island near the Arthur Avenue Outfall area. Based on the visual observations and test pits excavations in this area, these deposited materials are approximately 2 to 4 feet thick, encompass an area of approximately 1,000 square feet and remain in place. Excavation of deleterious materials at the Arthur Avenue Outfall is 0% complete to date.

Excavation of Deleterious Materials at Broadway Avenue Outfall:

Excavation of deposited materials near the Broadway Outfall is completed and the basin water runoff concrete pad is clear of materials. The excavated materials have been deposited along the eastern basin bank near the Broadway Outfall to allow excess water to drain so that it can be transported offsite for disposal.

Clear Sludge Material Inside Broadway Avenue Outfall:

The clearing of sludge material inside the Broadway Avenue Outfall is completed.

Excavation of Deleterious Materials Remainder of Basin:

Excavation of the deposited materials along an east/west transect line at the southern basin area is approximately 50% complete to date. The excavated materials were deposited along the access ramp walls in accordance with the approved Work Plan to allow excess water to drain so that it can be transported offsite for disposal.

Offsite Disposal of Deleterious Materials:

The offsite disposal of deleterious materials is 0% complete to date. The initial 20 cubic yards of stockpiled materials was scheduled to be loaded on February 20, 2018.

Rip Rap Placement @ Broadway Outfall:

The Rip Rap placement at the Broadway Outfall is 0% complete to date.

Restore Fill Material Over Underground Electric Lines:

The restoration of fill material over the underground electric lines is 0% complete to date.

Installation of Staff Gauge:

The installation of the staff gauge within the basin is 0% complete to date.

Final Site Clean-up and Demobilization:

The final site clean-up and site demobilization is 0% complete to date.

Next Scheduled Site Visit

March 2018. Exact Date To Be Determined

ATTACHMENT A – PHOTO LOG (2-19-18)
Basin Access Ramp – South View

ATTACHMENT A – PHOTO LOG (2-19-18)
Basin Trash Collection

ATTACHMENT A – PHOTO LOG (2-19-18)
Full Basin View – East View

ATTACHMENT A – PHOTO LOG (2-19-18)
Arthur Ave Outfall Area – North View

ATTACHMENT A – PHOTO LOG (2-20-18)
Arthur Ave Deposited Materials – North View

ATTACHMENT A – PHOTO LOG (2-19-18)
Broadway Ave Completed Scrape and Sludge Removal – East View

ATTACHMENT A – PHOTO LOG (2-19-18)
Stockpiled Soil Broadway Outfall – East View

ATTACHMENT A – PHOTO LOG (2-19-18)
Remaining Unscraped Basin – West View

ATTACHMENT A – PHOTO LOG (2-20-18)
Stockpiled Soil at Bottom of Access Ramp – West View

ATTACHMENT A – PHOTO LOG (2-20-18)
Shallow Excavation Test Pit #1

ATTACHMENT A – PHOTO LOG (2-19-18)
Shallow Excavation Test Pit #2

ATTACHMENT A – PHOTO LOG (2-19-18)
Shallow Excavation Test Pit #3

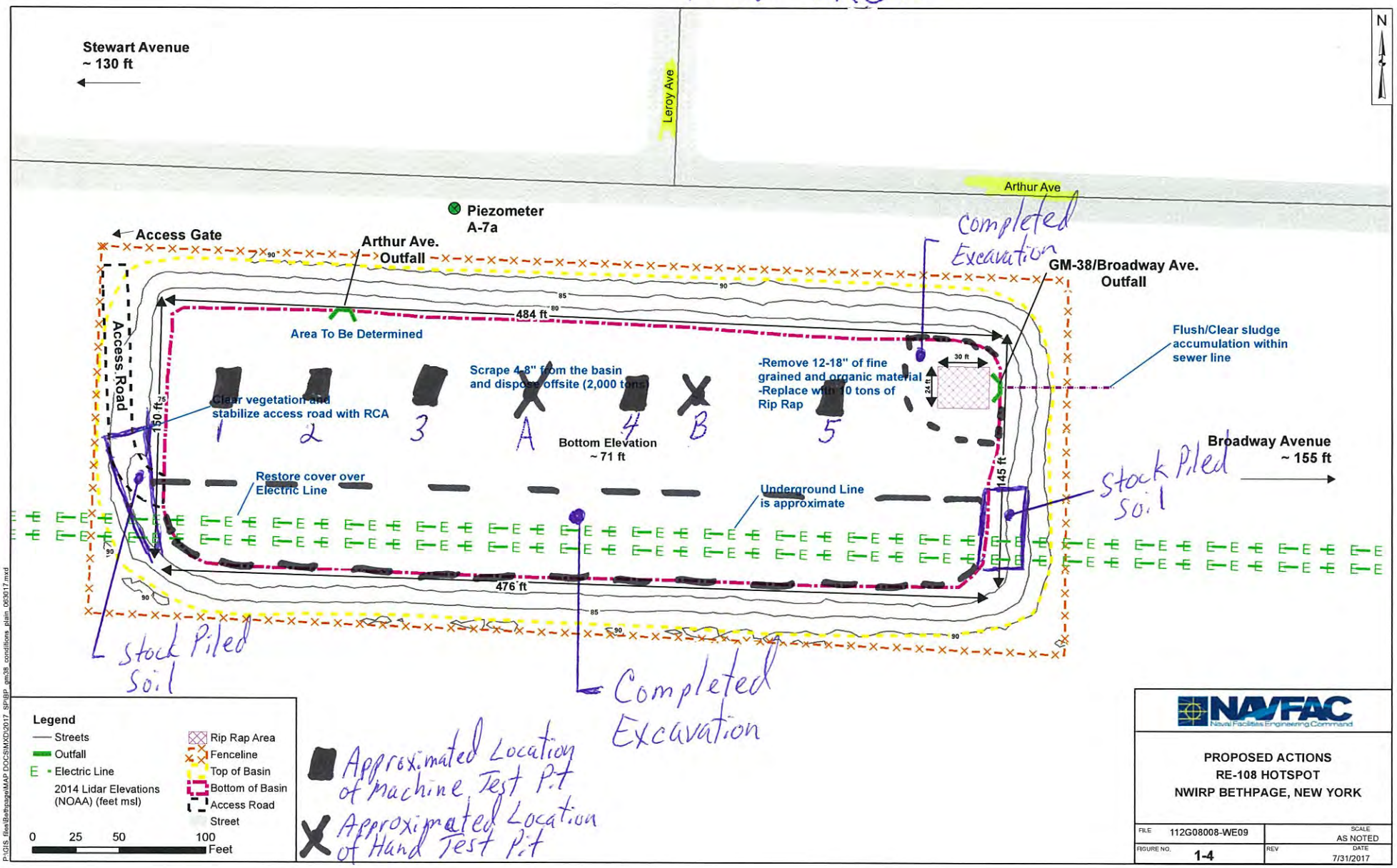
ATTACHMENT A – PHOTO LOG (2-19-18)
Shallow Hand Test Pit A

ATTACHMENT A – PHOTO LOG (2-19-18)
Shallow Excavation Test Pit #4

ATTACHMENT A – PHOTO LOG (2-19-18)
Shallow Hand Test Pit B

ATTACHMENT A – PHOTO LOG (2-19-18)
Shallow Excavation Test Pit #5

Field Sketch



March 13, 2018

Final Field Construction Oversight Letter Report and
Initial GM-38 Groundwater Treatment Plant System Start Up Summary
Former NWIRP Bethpage Facility
Arthur Avenue Basin (#495) Restoration Project
Bethpage, NY
Project # 112G05702 Task 04

This Final Construction Field Oversight Letter Report provides results of the field inspection of the completed Arthur Avenue Storm Water Collection and Drainage Basin Number 495 construction and restoration work Bethpage, New York (referred to herein as (site)). This report also briefly summarizes the initial GM-38 Groundwater Treatment Plant (GM-38) start-up activities.

Figure 1-4 is attached and depicts the site features. Photo documentation of the existing site conditions and pre-and post GM-38 start up site conditions are presented in **Attachments A** and **B**, respectively.

General Notes

Final field inspection work was conducted by Allen Polmann (AP) of Tetra Tech. AP arrives at the site on March 8, 2018 at 1215. AP acquired access gate lock combination to enter the site to conduct site walk and to obtain photo documentation of the completed project work.

The final site walk inspection was conducted on March 6, 2018 by, Greg Pearman, (GP) of Koman Government Solutions, LLC Facilities/Navy Quality Assurance Manager, the Prime Contractor, Bob Engle of Coastal Environmental Group (Costal), the Sub-Contractor, Ray Locrotondo, of Rayco Restoration and Construction Corp (Rayco), and Richard Porcelli Jr, a representative of the Township of Oyster Bay, NY. GP informed AP that the Arthur Avenue Basin Construction and Restoration work was completed in accordance with the approved Coastal December 2017 Work Plan bid specifications and to the Navy's satisfaction. GP also confirmed no outstanding issues were noted during the final site walk inspection.

Additionally, GP, Randy Hoffmaster (RH), and AP conducted a site visit on March 9, 2018, at 0900, approximately 1-hour after the GM-38 system start up, to observe the systems groundwater discharge from the Broadway Avenue outfall location and to obtain initial system start up photo documentation.

Site Work Activity Designations

The site's primary work activities and estimated completion status are designated as indicated below:

Work Description	Current Completion Status
1. Access Ramp Construction	**Work Completed**
2. Clearing, Grubbing and Offsite Disposal	**Work Completed**
3. Trash Removal and Offsite Disposal	**Work Completed**
4. Excavation at Arthur Ave Outfall	**Work Completed**
5. Excavation at Broadway Ave Outfall	**Work Completed**
6. Clear Sludge Material at Broadway Ave Outfall	**Work Completed**
7. Excavation at Remainder of Basin	**Work Completed**
8. Offsite Disposal of Deleterious Materials	**Work Completed**
9. Rip Rap Placement at Broadway Outfall	**Work Completed**
10. Restore Fill Material Over Underground Electric Lines	**Work Completed**
11. Installation of Staff Gauge	**Work Completed**
12. Final Site Clean-up and Demobilization	**Work Completed**

Summary of Final Field Work/Observations (March 8, 2018)

Weather conditions at the time of the field inspection included most cloudy skies and somewhat windy conditions. The previous day's snowstorm accumulation (approximately 2 to 3-inches) were observed across most of the basin except on the northern slopes. The northern slopes of the basin were relatively free of snow deposits.

Field observations confirmed approximately 0.9 feet surface water was present within the northern section of the basin as indicated by the newly installed basin water staff gauge. Water was actively discharging into the basin from the Arthur and Broadway Avenue outfalls due to melting snow. Surface water was not present within the southern section of the basin.

Field observations indicated that the sub-contractor, RAYCO had completed the work in accordance with the approved December 2017 Coastal Work Plan as indicated below.

Site Work Description (see Attachment A for photo documentation)

Access Ramp Construction:

Basin access ramp construction along the western edge of the basin is complete. Visual field observations and photo documentation confirm excavated stockpiled soil deposited along the ramp banks have been transported offsite for disposal. Access ramp was properly slopped and graded, and was free of trees and other wooded materials.

Clearing, Grubbing and Offsite Disposal:

Basin clearing and grubbing is complete. Visual field observations and photo documentation confirm all collected brush, tree limbs, and other wooded materials have been removed from the basin and transported offsite for disposal.

Trash Removal and Offsite Disposal:

Basin trash removal is complete. Visual field observations and photo documentation confirm all collected trash (plastic, glass, paper products, and other accumulated refuse materials have been removed from the basin and transported offsite for disposal.

Excavation of Deleterious Materials at Arthur Avenue Outfall:

Visual field observations and photo documentation confirm the excavation of deleterious material deposits at the Arthur Avenue Outfall is complete and all excavated materials have been removed from the basin transported offsite for disposal.

Excavation of Deleterious Materials at Broadway Avenue Outfall:

Visual field observations and photo documentation confirm the excavation of deleterious material deposits at the Broadway Avenue Outfall is complete and all excavated materials have been removed from the basin transported offsite for disposal.

Clear Sludge Material Inside Broadway Avenue Outfall:

Visual field observations and photo documentation confirm clearing of sludge material deposited inside the Broadway Avenue Outfall is completed and all removed materials have been transported offsite for disposal.

Excavation of Deleterious Materials Remainder of Basin:

Visual field observations and photo documentation confirm the excavation of deleterious material deposits in the remainder of the basin is complete and all excavated materials have been removed from the basin and transported offsite for disposal.

Offsite Disposal of Deleterious Materials:

The offsite disposal of deleterious materials is complete. Visual field observations and photo documentation confirm all excavated and/or stockpiled soil has been transported offsite for disposal.

Rip Rap Placement at Broadway Avenue Outfall:

Rip Rap material placement at the Broadway Outfall location is complete to date. Visual field observations and photo documentation confirm the Rip Rap materials have been placed at the bottom of the Broadway Avenue outfall in accordance with the 2017 Coastal Work Plan.

Restore Fill Material Over Underground Electric Lines:

Restoration of fill material over the underground electric lines appeared to be complete. Snow accumulation across the southern section of the basin did not allow for direct visual confirmation. However, in walking over this area, there appeared to be a slight increase of fill material over the underground electric lines

Installation of Staff Water Gauge:

Installation of the basin staff water gauge is complete. Visual field observations and photo documentation confirm the presence water staff gauge has been installed in the southwest corner of the basin.

Final Site Clean-up and Demobilization:

The final site clean-up and site demobilization is complete. Visual observations and photo documentation confirm that all construction materials, excavation equipment and/or tools have been removed from the property.

Project Status

The Arthur Avenue Basin Construction and Restoration work has been completed in accordance with the approved Coastal December 2017 Work Plan bid specifications and to the Navy's satisfaction. Outstanding issues were not noted during the final site walk inspection.

GM-38 Groundwater Treatment Plant Start Up Activities (March 9, 2018)

GP requested that AP be present to observe the GM-38 system startup activities on March 9, 2018 and complete photo documentation of the pre-and post-site conditions (see **Appendix B**).

AP arrived on site @ 0700 to obtain photo documentation of the pre -GM-38 system start up conditions. Weather conditions at the time of the pre-and post-site conditions included most cloudy skies and somewhat windy conditions. Snow accumulation ranged from approximately 2 to 3-inches across most of the basin except on the northern slopes. The northern slopes of the basin remained relatively free of snow deposits.

Visual field observations of the pre -GM-38 start up confirmed that the basin was generally free of surface water and the previous day's accumulation surface water (approximately 0.9 feet) had completely drained along the northern section of the basin as indicated by the newly installed basin water staff gauge. Water was no longer discharging into the basin from the Arthur or Broadway Avenue outfalls.

AP arrives at GM-38 location at 0730 to meet with GP and RH for the initial briefing and to observe system start up.

Initial System Start Up Testing:

GP and RH informed AP that the initial GM-38 system start up testing would consist of the following primary tasks:

- Visual Field Observations and Photo Documentation of Pre-System Start Up Site Conditions
- GM-38 System Start Up @ 0800 hours
- Pumping Well RW-1
- Initial System Pumping Rate 350 gallon per minute (gpm), Continuous for 3-Days
- Visual Field Observations and Photo Documentation of Post-System Start Up Site Conditions (1 hour after initial system start up and approximately 21,000 gallons of treated water was discharged into Broadway Outfall location)

AP arrived on site @ 0900 with GP and RH to obtain photo documentation of the 1 hour post -GM-38 system start up conditions. Visual field observations confirmed that discharge water from GM-38 was flowing from the Broadway Avenue Outfall location.

A limited amount of water (estimated 21,000 gallons based on pumping rate) had accumulated proximate to Broadway Avenue Outfall location and alone the northern section of the basin. Water had not reached a high enough level to be recorded on the newly installed basin staff gauge. AP departs the site @ 0945.

Final System Start Up Testing:

GP and RH informed AP that the initial GM-38 system final start up testing would consist of the following primary tasks:

- RW-1 Continuous Pumping Rate would be Stepped Up to 700 gpm for 3-Days
- RW-1 Continuous Final Pumping Rate would be 1,000 gpm
- Continued System Monitoring and Reporting

ATTACHMENT A – PHOTO LOG (3-08-18)
Completed Access Ramp Depicting Removed Stockpiled Soil (South View)

ATTACHMENT A – PHOTO LOG (3-08-18)
Completed Access Ramp Depicting Removed Stockpiled Soil (West View)

ATTACHMENT A – PHOTO LOG (3-08-18)
Full Basin View Depicting Completed Excavation – East View

ATTACHMENT A – PHOTO LOG (3-08-18)
Full Basin View Depicting Completed Excavation – West View

ATTACHMENT A – PHOTO LOG (3-08-18)
Arthur Ave Outfall Area Depicting Completed Excavation
North View

ATTACHMENT A – PHOTO LOG (3-08-18)
Broadway Ave Outfall Area Depicting Completed Excavation and Rip/Rap Installation - East View

ATTACHMENT A – PHOTO LOG (3-08-18)
Close-Up Broadway Ave Outfall Depicting Rip/Rap Installation (North View)

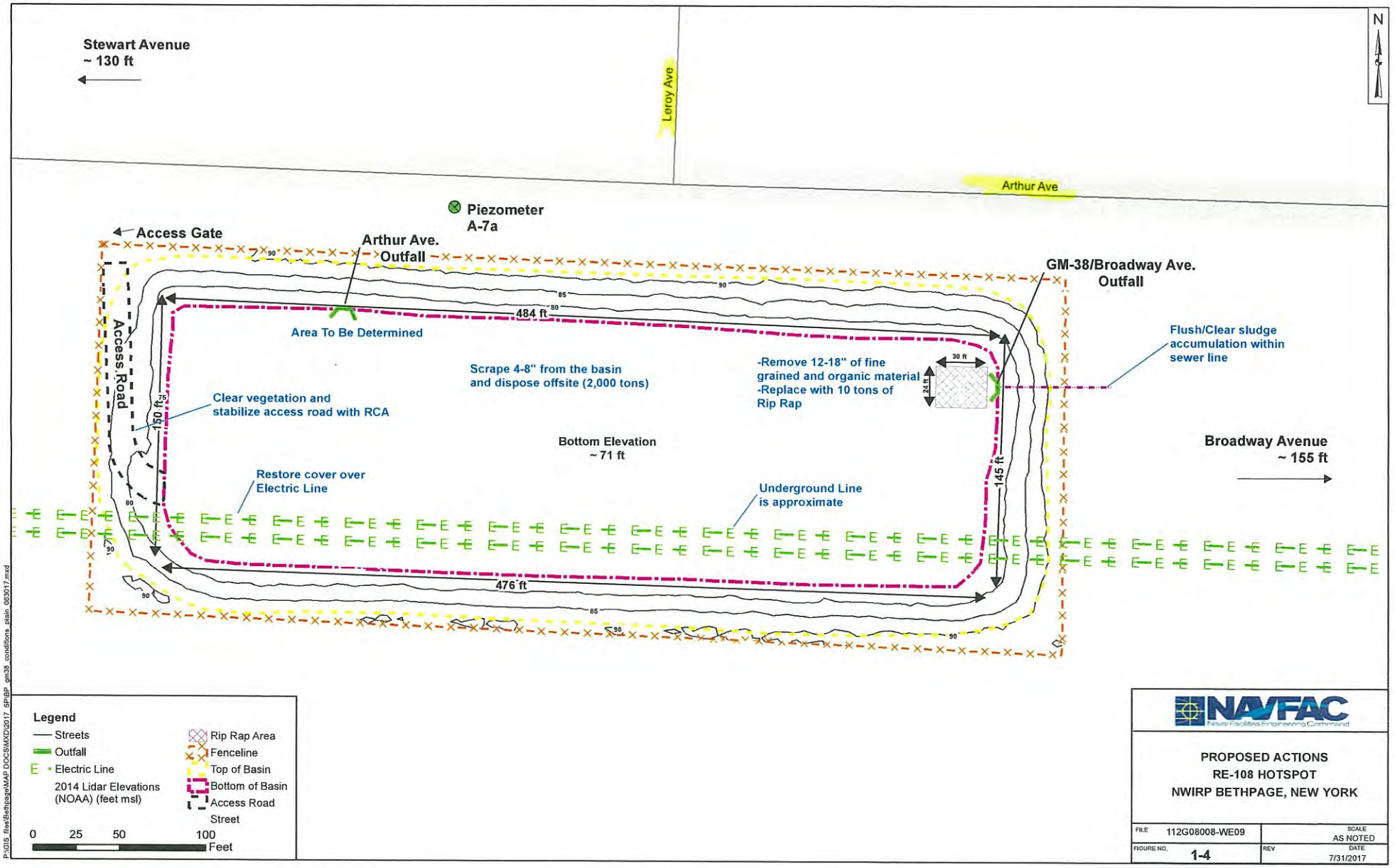
ATTACHMENT A – PHOTO LOG (2-19-18)
Eastern Basin Depicting Stockpiled Soil Removal – East View

ATTACHMENT A – PHOTO LOG (3-08-18)
Southwest Basin Corner Depicting Surface Water Staff Gauge (East View)

ATTACHMENT B – PHOTO LOG (3-09-18)
Basin Depicting Dry Static Conditions Prior to GM-38 Start Up (East View)

ATTACHMENT B – PHOTO LOG (3-09-18)
Basin Depicting Site Conditions and Water Accumulation in Northern Section 1 Hour After GM-38 Start Up - East View

ATTACHMENT B – PHOTO LOG (3-09-18)
Broadway Outfall Depicting Treated Water Discharge From GM-38 Treatment Groundwater System – North View


Stewart Avenue
~ 130 ft
Leroy Ave
Arthur Ave
N
Piezometer
A-7a
Access Gate
Arthur Ave.
Outfall
GM-38/Broadway Ave.
Outfall
Access Road
484 ft
Area To Be Determined
Flush/Clear sludge
accumulation within
sewer line
Scrape 4-8" from the basin
and dispose offsite (2,000 tons)
-Remove 12-18" of fine
grained and organic material
-Replace with 10 tons of
Rip Rap
30 ft
24 ft
Clear vegetation and
stabilize access road with RCA
150 ft
Bottom Elevation
~ 71 ft
Broadway Avenue
~ 155 ft
Restore cover over
Electric Line
Underground Line
is approximate
145 ft
476 ft
Legend
Streets
Outfall
Electric Line
2014 Lidar Elevations
(NOAA) (feet msl)
Rip Rap Area
Fenceline
Top of Basin
Bottom of Basin
Access Road
Street
0 25 50 100
Feet
PROPOSED ACTIONS
RE-108 HOTSPOT
NWIRP BETHPAGE, NEW YORK
FILE 112G08008-WE09
SCALE AS NOTED
FIGURE NO. 1-4
REV
DATE 7/31/2017
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