



28 October 2015

Mr. Henry Wilkie
New York State Department of Environmental Conservation
Division of Solid & Hazardous Materials
625 Broadway
Albany, NY 12233-7252

**Subject: GROUNDWATER DISCHARGE MONITORING/AIR EMISSION REPORT
GM-38 AREA, NWIRP BETHPAGE, NY; DER SITE # 1-30-003B-OU 2
SEPTEMBER 2015 REPORTING PERIOD**

Dear Mr. Wilkie:

H&S Environmental, Inc. (H&S) is submitting this monthly monitoring report of the groundwater discharge and air emission results for the Groundwater Treatment Plant (GWTP) located at the Former Naval Weapons Industrial Reserve Plant (NWIRP), Bethpage, NY, GM-38 Area. This report was prepared in accordance with GWTP operational requirements for DER Site # 1-30-003B-OU 2.

GWTP operational data from 1 September 2015 to 30 September 2015 are presented in Attachment A. During this reporting period, scheduled downtime occurred for maintenance activities, consisting of the changeout of the vapor phase granular activated carbon (VGAC). This scheduled downtime affected the average flowrates during the September 2015 reporting period.

As indicated in Attachment A, all permitted constituents were in compliance with regulatory guidelines during this reporting period.

Please contact me at 508-366-7442 with any questions or concerns you may have regarding this report.

Sincerely,
H&S Environmental, Inc.

Jennifer Good
Project Manager

Attachment A: Groundwater and Air Sampling Results from September 2015

Cc: Steven Scharf – NYSDEC
Jean Occidental - NYSDEC Division of Water
Jennifer Pilewski - NYSDEC – Region 1 Water Engineer
Gerard Ennis - Nassau County Department of Public Works
Linda Bianculli - Town of Oyster Bay
Lora Fly - NAVFAC Mid-Atlantic RPM
Greg Pearman – NWIRP Bethpage
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ATTACHMENT A
GROUNDWATER AND AIR SAMPLING RESULTS
SEPTEMBER 2015

**GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Discharge Monitoring Report
September 2015**

SPDES Parameters	September 2015					
Process Stream	Daily Treated Effluent Maximum	Units	RW-1 ⁽¹⁾	RW-3 ⁽¹⁾	Combined Influent ⁽¹⁾	Treated Effluent
Well Depth	N/A	ft	445	530	N/A	N/A
Screened Interval	N/A	ft bgs	335-395 410-430	392-412 442-504	N/A	N/A
Sampling Date	N/A		9/14/15			
Average Flowrate	1100	GPM	952	0.4	952	988
Total Flow	N/A	gallons	41,105,400	18,000	41,123,400	42,692,600
pH	5.5 - 8.5	SU	5.30	N/A	5.30	6.01
Carbon Tetrachloride	NA	µg/L	ND (1.0)	N/A	ND (1.0)	ND (1.0)
1,1-Dichloroethane	5	µg/L	2.3	N/A	2.3	ND (1.0)
1,2-Dichloroethane	0.6	µg/L	ND (1.0)	N/A	ND (1.0)	ND (1.0)
1,1-Dichloroethene	5	µg/L	2.4	N/A	2.4	ND (1.0)
cis 1,2-Dichloroethene	5	µg/L	14.9	N/A	14.9	ND (1.0)
trans 1,2-Dichloroethene	5	µg/L	0.28 J	N/A	0.28 J	ND (1.0)
Tetrachloroethene	5	µg/L	32.5	N/A	32.5	ND (1.0)
1,1,1-Trichloroethene	5	µg/L	1.6	N/A	1.6	ND (1.0)
Trichloroethene	5	µg/L	166	N/A	166	ND (1.0)
Vinyl Chloride	2	µg/L	0.53 J	N/A	0.53 J	ND (2.0)
Mercury	0.00025	mg/L	0.00004 J	N/A	0.00004 J	0.00006 J
Total Suspended Solids (TSS)	N/A	mg/L	ND (5)	N/A	ND (5)	ND (5)

Notes:

J - Estimated result between laboratory method detection limit and reporting limit

ND - Not detected above laboratory method detection limit. Limit of detection (LOD) given in parentheses.

NR - Not Recorded

NS - Not Sampled. RW-3 sampling frequency has been reduced from monthly to semi-annually.

N/A - Not Applicable

(1) On 1 July 2015, the RW-1 flowrate was increased from ~800 gpm to ~1,000 gpm and RW-3 was taken off-line, as approved by NYSDEC on 20 April 2015. To maintain the integrity of RW-3 for potential future use, approximately 200 gallons per minute of water are pumped for a 1-hour period from the well on a monthly basis. RW-3 will be sampled semi-annually, consistent with the groundwater monitoring program. Influent concentrations presented above are therefore equivalent to RW-1 concentrations only.

**GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Air Sampling Results
September 2015**

DAR Parameters	Units	Discharge Goal ⁽¹⁾	September 2015	
			Influent	Effluent
Process Stream				
Sampling Date	N/A	N/A	9/8/2015 ⁽³⁾	
Average Flowrate	CFM	N/A	NR	9,190
Total Flow	ft ³	N/A	NR	397,022,400
Total Flow	m ³	N/A	NR	11,242,422
1,2-Dichloroethane	µg/m ³	N/A	3.5 J	2.4 J
cis 1,2-Dichloroethene	µg/m ³	> 100,000 ⁽²⁾	140	160
trans 1,2-Dichloroethene	µg/m ³		ND	1.7 J
1,2-Dichloroethene (total)	µg/m ³	>100,000	140	160
Toluene	µg/m ³	N/A	4.2 J	ND
Total Xylene	µg/m ³	N/A	ND	ND
1,1,2-Trichloroethane	µg/m ³	N/A	2.0 J	ND
Trichloroethene	µg/m ³	2,600	1,600	23
Vinyl Chloride	µg/m ³	560	4.4	2.6
Tetrachloroethene	µg/m ³	5,100	400	10

Notes:

CFM - cubic feet per minute

DAR - Division of Air Resources

J - Estimated result between laboratory method detection limit and reporting limit

N/A - Not Applicable

NR - Not recorded

(1) Discharge goal as approved by NYSDEC's letter dated 31 October 2013.

(2) Discharge goal is for total 1,2-Dichloroethene.

(3) Monthly process samples were collected on 9/8/15. Changeout of the vapor phase granular activated carbon (VGAC) was performed on 9/16-9/17/15.

**GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Controlled Stack Emissions
September 2015**

DAR Parameters	Units	Discharge Goal ⁽¹⁾	September 2015
Sampling Date	N/A	N/A	9/8/15
Average Flowrate	CFM	N/A	9,190
Total Flow	ft ³	N/A	397,022,400
Total Flow	m ³	N/A	11,242,422
Trichloroethene	lb/hr	0.09	0.00079
Vinyl Chloride	lb/hr	0.02	0.00009
1,2 Dichloroethene	lb/hr	11	0.00551
1,2-Dichloroethane	lb/hr	N/A	0.00008
Toluene	lb/hr	N/A	0.00000
Total Xylene	lb/hr	N/A	0.00000
1,1,2-Trichloroethane	lb/hr	N/A	0.00000
Tetrachloroethene	lb/hr	0.18	0.00034

Notes:

CFM - cubic feet per minute

DAR - Division of Air Resources

N/A - Not Applicable

(1) Discharge goal as approved by NYSDEC's letter dated 31 October 2013.