31 October 2016

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 2016 REPORTING PERIOD

Dear Mr. Wilkie:

KOMAN Government Solutions, LLC (KGS) 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 2016 to 30 September 2016 are presented in Attachment A. During this reporting period, scheduled downtime occurred in order to perform a routine changeout of the liquid phase granular activated carbon (LGAC). This scheduled downtime affected the average flowrates during the September 2016 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,
KOMAN Government Solutions, LLC

Jennifer Good
Project Manager

Attachment A: Groundwater and Air Sampling Results from September 2016

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 2016

GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Discharge Monitoring Report
September 2016

SPDES Parameters			September 2016 [3]			
Process Stream	**Daily Treated Effluent Maximum**	**Units**	**RW-1 [1]**	**RW-3 [2]**	**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		9/6/16			
Average Flowrate	1100	GPM	923	0.3	924	946
Total Flow	N/A	gallons	39,887,336	12,800	39,900,136	40,854,572
pH	5.5 - 8.5	SU	5.29	NS	5.29	6.07
Carbon Tetrachloride	NA	µg/L	ND (1.0)	NS	ND (1.0)	ND (1.0)
1,1-Dichloroethane	5	µg/L	2.0	NS	2.0	ND (1.0)
1,2-Dichloroethane	0.6	µg/L	ND (1.0)	NS	ND (1.0)	ND (1.0)
1,1-Dichloroethene	5	µg/L	1.5	NS	1.5	ND (1.0)
cis 1,2-Dichloroethene	5	µg/L	9.4	NS	9.4	0.40 J
trans 1,2-Dichloroethene	5	µg/L	ND (1.0)	NS	ND (1.0)	ND (1.0)
Tetrachloroethene	5	µg/L	27	NS	27	ND (1.0)
1,1,1-Trichloroethene	5	µg/L	1.1	NS	1.1	ND (1.0)
Trichloroethene	5	µg/L	120	NS	120	0.89 J
Vinyl Chloride	2	µg/L	0.27 J	NS	0.27 J	ND (1.0)
Mercury	0.00025	mg/L	ND (0.00010)	NS	ND (0.00010)	ND (0.00010)
Total Suspended Solids (TSS)	N/A	mg/L	ND (1.0)	NS	ND (1.0)	ND (1.0)

Notes:
B - Method blank contamination
J - Estimated result between laboratory method detection limit and reporting limit
ND - Not detected above laboratory method detection limit. Reporting Limit (RL) 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
NS - Not Sampled
(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. Influent concentrations presented above are therefore equivalent to RW-1 concentrations only.
(2) 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 is sampled semi-annually, consistent with the groundwater monitoring program.
(3) Monthly process samples were collected on 9/6/16. Changeout of the liquid phase granular activated carbon (LGAC) was performed on 9/20/16.

GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Air Sampling Results
September 2016

DAR Parameters	Units	Discharge Goal (1)	September 2016	
Process Stream			Influent	Effluent (3)
Sampling Date	N/A	N/A	9/6/16	
Average Flowrate	CFM	N/A	NR	7,823
Total Flow	ft^3	N/A	NR	337,947,429
Total Flow	m^3	N/A	NR	9,569,605
1,2-Dichloroethane	$\mu g/m^3$	N/A	4.0 J	0.76 J
cis 1,2-Dichloroethene	$\mu g/m^3$	> 100,000 (2)	130	30
trans 1,2-Dichloroethene	$\mu g/m^3$		1.9 J	ND
1,2-Dichloroethene (total)	$\mu g/m^3$	>100,000	140	30
Toluene	$\mu g/m^3$	N/A	ND	7.2
Total Xylene	$\mu g/m^3$	N/A	ND	ND
1,1,2-Trichloroethane	$\mu g/m^3$	N/A	1.5 J	ND
Trichloroethene	$\mu g/m^3$	2,600	2,400	830
Vinyl Chloride	$\mu g/m^3$	560	4.1	3.8
Tetrachloroethene	$\mu g/m^3$	5,100	460	260

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) Effluent concentrations presented above are not in-line with concentrations observed in previous months and are also not consistent with results of a subsequent sample collected on 10/7/16, indicating effluent results presented above are not likely indicative of actual conditions.

GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Controlled Stack Emissions
September 2016

DAR Parameters	Units	Discharge Goal [1]	September 2016 [2]	
Sampling Date	N/A	N/A	9/6/16	
Average Flowrate	CFM	N/A	7,823	
Total Flow	ft^3	N/A	337,947,429	
Total Flow	m^3	N/A	9,569,605	
Trichloroethene	lb/hr	0.09	0.02432	0.00012
Vinyl Chloride	lb/hr	0.02	0.00011	0.00005
1,2 Dichloroethene	lb/hr	11	0.00088	0.00070
1,2-Dichloroethane	lb/hr	N/A	0.00002	0.00000
Toluene	lb/hr	N/A	0.00021	0.00004
Total Xylene	lb/hr	N/A	0.00000	0.00000
1,1,2-Trichloroethane	lb/hr	N/A	0.00000	0.00000
Tetrachloroethene	lb/hr	0.18	0.00762	0.00002

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.
(2) Concentrations of the effluent sample collected on 9/6/16 are not in-line with concentrations observed in previous months and are also not consistent with results of a subsequent sample collected on 10/7/16, indicating the September results may not reflect actual conditions. Emission rates were calculated using the September 2016 effluent data on the left. Emission rates were calculated using the average of the effluent concentrations from August and October 2016 on the right, as these concentrations and calculated emissions more likely reflect actual conditions. Calculated emission rates using both the September 2016 effluent concentrations and the average of the August 2016 and October 2016 effluent concentrations remain below the discharge goals.