



6 July 2023

Mr. Scott Sokolowski
Remedial Project Manager
Naval Facilities Engineering Command, Mid Atlantic
9324 Virginia Avenue, Building N-26
Norfolk, VA 23511-3095

**Subject: June 2023 Sampling Report
Full Scale Liquid-Phase Granular Activated Carbon Treatment System
Liberty New York Water, Seamans Neck Road Water Plant
NWIRP Bethpage, New York
Contract No. N40085-16-D-2288, Task Order 5125**

Dear Mr. Sokolowski,

The Full Scale Liquid-Phase Granular Activated Carbon (GAC) Treatment System is located at the Liberty New York Water (LNYW) Seamans Neck Road water treatment plant in Levittown, NY. The GAC System was installed at the effluent of the potable water treatment plant and consists of six GAC vessels operating in parallel to remove low levels of trichloroethene (TCE) from Well No. 3A and Well No. 4S. After GAC treatment, the water receives chemical injection of sodium hypochlorite and sodium tripolyphosphate before going to distribution. Startup of the Full Scale GAC Treatment System occurred on 8 January 2015 under CH2MHill. KOMAN Government Solutions, LLC (KGS) began routine operation and maintenance (O&M) activities in March 2015.

The purpose of this report is to document the sampling activities performed at the GAC Treatment System in June 2023 and present the associated analytical results.

Sampling Requirements

Nassau County Department of Health (NCDH) and the approved Sampling Plan outline the following sampling requirements at the Full Scale GAC System:

- **Monthly Sampling:** Principal Organic Contaminants (POC) sampling will be performed once a month at the effluent from the GAC treatment system – one sample location, plus associated quality assurance / quality control (QA/QC) samples. POCs will be analyzed via EPA Method 542.2.
- **Quarterly Sampling:** POC sampling will be performed at the influent to the GAC treatment system on a quarterly basis at Well No. 3A and Well No. 4S raw water – two sample locations. The monthly POC sample collected at the effluent of the GAC Treatment System (described above) will also serve as the quarterly POC GAC effluent sample. Associated QA/QC samples will also be collected. In addition, microbiological (MIC) samples will be collected on a quarterly basis. Samples will be collected from the

system influent (Well No. 3A and Well No. 4S raw water) and from the effluent of each GAC vessel over a timed sequence. The sampling occurs after the wells and vessels are shut-down for a minimum of 12 hours. Samples will be analyzed via the Colilert method to determine if any *E. Coli* or Total Coliform bacteria are present.

- Annual Sampling: Annual sampling will be performed for Physical and Inorganic Constituents (IOCs) at the system influent (Well No. 3A and Well No. 4S raw water) and effluent – three sampling locations, plus associated QA/QC samples. IOCs include a specified list of metals analyzed via EPA Method 200.7.

June 2023 Sampling Summary

Monthly POC Sampling

On 2 June monthly POC samples were collected from the GAC system influent from Well No. 3A and Well No. 4S and the system effluent; a field duplicate and matrix spike / matrix spike duplicate (MS/MSD) from the system effluent were also collected. **Attachment 1** provides the analytical data report for POC samples collected in June 2023. **Table 1**, below, presents the trichloroethene (TCE) analytical results. TCE was not detected in the GAC effluent or GAC effluent duplicate samples. Results for TCE are in compliance with NCDH requirements.

Table 1 - TCE Analytical Results⁽¹⁾ – June 2023

Date	Well 3A Raw [N-14347 (Seaman Neck 3A Well)]	Well 4S Raw [N-09338 (Seaman Neck 4S Well)]	Effluent from GAC System [GAC-3S/4S (Seaman Neck GAC Effluent)]	Effluent from GAC System (Duplicate) [GAC-3S/4S (Seaman Neck GAC Effluent)-D]
06/02/2023	21.7	2.4	ND	ND

Notes:

(1) All concentrations reported in ug/L (ppb).

ND – Not Detected above the reporting limit (0.50 ug/L)

Please contact me at 610-400-0636 or rgregory@komangs.com with any questions or concerns regarding this report.

Sincerely,

KOMAN Government Solutions, LLC



Robert Gregory, P.G.
Project Manager

Cc: W. Provoncha – Nassau County
M. Alarcon – Nassau County

C. Johnson – Nassau County
R. Castle – Nassau County
J. Pelton – NYSDEC
K. Granzen – NYSDEC
M. Travis - NYSDEC
C. Shukis – NAVFAC
V. Varricchio – NWIRP Bethpage Facilities Management
R. Kern – LNYW
N. Niola – LNYW
J. Palmer - LNYW
D. Brayack – Tetra Tech
R. Hoffmaster – KGS
P. Schauble – KGS

ATTACHMENT 1

POC ANALYTICAL RESULTS FOR JUNE 2023

June 09, 2023

Robert G. Gregory
KOMAN Government Services, LLC
180 Gordon Dr.
Suite 110
Exton, PA 19341

RE: Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2
Pace Project No.: 70258374

Dear Robert Gregory:

Enclosed are the analytical results for sample(s) received by the laboratory on June 02, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Melville

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kimberley M. Mack
kimberley.mack@pacelabs.com
(631)694-3040
Project Manager

Enclosures

cc: Ericka Seiler, KOMAN Government Services, LLC



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2

Pace Project No.: 70258374

Pace Analytical Services Long Island

575 Broad Hollow Rd, Melville, NY 11747

Connecticut Certification #: PH-0435

Delaware Certification # NY 10478

Maryland Certification #: 208

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

New Jersey Certification #: NY158

New York Certification #: 10478 Primary Accrediting Body

Pennsylvania Certification #: 68-00350

Rhode Island Certification #: LAO00340

Virginia Certification # 460302

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SAMPLE SUMMARY

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2
Pace Project No.: 70258374

Lab ID	Sample ID	Matrix	Date Collected	Date Received
70258374001	GAC-3S/4S(SEAMAN NECK GAC EFF)	Drinking Water	06/02/23 09:40	06/02/23 11:44
70258374002	GAC-3S/4S(SEAMAN NECKGACEFF)-D	Drinking Water	06/02/23 09:45	06/02/23 11:44
70258374003	WELL 3A N-1347 (INFLUENT)	Drinking Water	06/02/23 10:05	06/02/23 11:44
70258374004	WELL 4 N-09338 (INFLUENT)	Drinking Water	06/02/23 10:05	06/02/23 11:44

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SAMPLE ANALYTE COUNT

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2

Pace Project No.: 70258374

Lab ID	Sample ID	Method	Analysts	Analytes Reported
70258374001	GAC-3S/4S(SEAMAN NECK GAC EFF)	EPA 522	SPM	2
		EPA 524.2	KGG	62
70258374002	GAC-3S/4S(SEAMAN NECKGACEFF)-D	EPA 524.2	KGG	62
70258374003	WELL 3A N-1347 (INFLUENT)	EPA 522	SPM	2
		EPA 524.2	KGG	62
70258374004	WELL 4 N-09338 (INFLUENT)	EPA 522	SPM	2
		EPA 524.2	KGG	62

PACE-MV = Pace Analytical Services - Melville

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ANALYTICAL RESULTS

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2

Pace Project No.: 70258374

Sample: GAC-3S/4S(SEAMAN NECK GAC EFF) **Lab ID:** 70258374001 Collected: 06/02/23 09:40 Received: 06/02/23 11:44 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
522 MSS 1,4 Dioxane (SIM)									
Analytical Method: EPA 522 Preparation Method: EPA 522									
Pace Analytical Services - Melville									
1,4-Dioxane (p-Dioxane)	1.8	ug/L	0.020		1	06/06/23 11:37	06/06/23 21:36	123-91-1	
Surrogates									
1,4-Dioxane-d8 (S)	99	%	70-130		1	06/06/23 11:37	06/06/23 21:36		
524.2 MSV									
Analytical Method: EPA 524.2									
Pace Analytical Services - Melville									
Benzene	<0.50	ug/L	0.50	5	1		06/08/23 14:49	71-43-2	
Bromobenzene	<0.50	ug/L	0.50		1		06/08/23 14:49	108-86-1	
Bromochloromethane	<0.50	ug/L	0.50		1		06/08/23 14:49	74-97-5	
Bromodichloromethane	<0.50	ug/L	0.50	80	1		06/08/23 14:49	75-27-4	
Bromoform	<0.50	ug/L	0.50	80	1		06/08/23 14:49	75-25-2	
Bromomethane	<0.50	ug/L	0.50		1		06/08/23 14:49	74-83-9	
n-Butylbenzene	<0.50	ug/L	0.50		1		06/08/23 14:49	104-51-8	
sec-Butylbenzene	<0.50	ug/L	0.50		1		06/08/23 14:49	135-98-8	
tert-Butylbenzene	<0.50	ug/L	0.50		1		06/08/23 14:49	98-06-6	
Carbon tetrachloride	<0.50	ug/L	0.50	5	1		06/08/23 14:49	56-23-5	
Chlorobenzene	<0.50	ug/L	0.50	100	1		06/08/23 14:49	108-90-7	
Chlorodifluoromethane	<0.50	ug/L	0.50		1		06/08/23 14:49	75-45-6	N3
Chloroethane	<0.50	ug/L	0.50		1		06/08/23 14:49	75-00-3	
Chloroform	<0.50	ug/L	0.50	80	1		06/08/23 14:49	67-66-3	
Chloromethane	<0.50	ug/L	0.50		1		06/08/23 14:49	74-87-3	
2-Chlorotoluene	<0.50	ug/L	0.50		1		06/08/23 14:49	95-49-8	
4-Chlorotoluene	<0.50	ug/L	0.50		1		06/08/23 14:49	106-43-4	
Dibromochloromethane	<0.50	ug/L	0.50	80	1		06/08/23 14:49	124-48-1	
Dibromomethane	<0.50	ug/L	0.50		1		06/08/23 14:49	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	0.50	600	1		06/08/23 14:49	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	0.50		1		06/08/23 14:49	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	0.50	75	1		06/08/23 14:49	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	0.50		1		06/08/23 14:49	75-71-8	
1,1-Dichloroethane	<0.50	ug/L	0.50		1		06/08/23 14:49	75-34-3	
1,2-Dichloroethane	<0.50	ug/L	0.50	5	1		06/08/23 14:49	107-06-2	
1,1-Dichloroethene	<0.50	ug/L	0.50	7	1		06/08/23 14:49	75-35-4	
cis-1,2-Dichloroethene	<0.50	ug/L	0.50	70	1		06/08/23 14:49	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/L	0.50	100	1		06/08/23 14:49	156-60-5	
1,2-Dichloropropane	<0.50	ug/L	0.50	5	1		06/08/23 14:49	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	0.50		1		06/08/23 14:49	142-28-9	
2,2-Dichloropropane	<0.50	ug/L	0.50		1		06/08/23 14:49	594-20-7	
1,1-Dichloropropene	<0.50	ug/L	0.50		1		06/08/23 14:49	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	0.50		1		06/08/23 14:49	10061-01-5	
trans-1,3-Dichloropropene	<0.50	ug/L	0.50		1		06/08/23 14:49	10061-02-6	
Ethylbenzene	<0.50	ug/L	0.50	700	1		06/08/23 14:49	100-41-4	
Hexachloro-1,3-butadiene	<0.50	ug/L	0.50		1		06/08/23 14:49	87-68-3	
Isopropylbenzene (Cumene)	<0.50	ug/L	0.50		1		06/08/23 14:49	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	0.50		1		06/08/23 14:49	99-87-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2

Pace Project No.: 70258374

Sample: GAC-3S/4S(SEAMAN NECK GAC EFF) **Lab ID:** 70258374001 Collected: 06/02/23 09:40 Received: 06/02/23 11:44 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV									
Analytical Method: EPA 524.2									
Pace Analytical Services - Melville									
Methylene Chloride	<0.50	ug/L	0.50	5	1		06/08/23 14:49	75-09-2	
Methyl-tert-butyl ether	<0.50	ug/L	0.50		1		06/08/23 14:49	1634-04-4	
n-Propylbenzene	<0.50	ug/L	0.50		1		06/08/23 14:49	103-65-1	
Styrene	<0.50	ug/L	0.50	100	1		06/08/23 14:49	100-42-5	
1,1,1,2-Tetrachloroethane	<0.50	ug/L	0.50		1		06/08/23 14:49	630-20-6	
1,1,2,2-Tetrachloroethane	<0.50	ug/L	0.50		1		06/08/23 14:49	79-34-5	
Tetrachloroethene	<0.50	ug/L	0.50	5	1		06/08/23 14:49	127-18-4	
Toluene	<0.50	ug/L	0.50	1000	1		06/08/23 14:49	108-88-3	
Total Trihalomethanes (Calc.)	<0.50	ug/L	0.50	80	1		06/08/23 14:49		
1,2,3-Trichlorobenzene	<0.50	ug/L	0.50		1		06/08/23 14:49	87-61-6	
1,2,4-Trichlorobenzene	<0.50	ug/L	0.50	70	1		06/08/23 14:49	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	0.50	200	1		06/08/23 14:49	71-55-6	
1,1,2-Trichloroethane	<0.50	ug/L	0.50	5	1		06/08/23 14:49	79-00-5	
Trichloroethene	<0.50	ug/L	0.50	5	1		06/08/23 14:49	79-01-6	
Trichlorofluoromethane	<0.50	ug/L	0.50		1		06/08/23 14:49	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	0.50		1		06/08/23 14:49	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.50	ug/L	0.50		1		06/08/23 14:49	76-13-1	N3
1,2,4-Trimethylbenzene	<0.50	ug/L	0.50		1		06/08/23 14:49	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	0.50		1		06/08/23 14:49	108-67-8	
Vinyl chloride	<0.50	ug/L	0.50	2	1		06/08/23 14:49	75-01-4	
m&p-Xylene	<0.50	ug/L	0.50		1		06/08/23 14:49	179601-23-1	
o-Xylene	<0.50	ug/L	0.50		1		06/08/23 14:49	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	85	%	70-130		1		06/08/23 14:49	2199-69-1	
4-Bromofluorobenzene (S)	80	%	70-130		1		06/08/23 14:49	460-00-4	

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ANALYTICAL RESULTS

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2

Pace Project No.: 70258374

Sample: GAC-3S/4S(SEAMAN NECKGACEFF)-D **Lab ID:** 70258374002 Collected: 06/02/23 09:45 Received: 06/02/23 11:44 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV									
Analytical Method: EPA 524.2									
Pace Analytical Services - Melville									
Benzene	<0.50	ug/L	0.50	5	1		06/08/23 15:11	71-43-2	
Bromobenzene	<0.50	ug/L	0.50		1		06/08/23 15:11	108-86-1	
Bromochloromethane	<0.50	ug/L	0.50		1		06/08/23 15:11	74-97-5	
Bromodichloromethane	<0.50	ug/L	0.50	80	1		06/08/23 15:11	75-27-4	
Bromoform	<0.50	ug/L	0.50	80	1		06/08/23 15:11	75-25-2	
Bromomethane	<0.50	ug/L	0.50		1		06/08/23 15:11	74-83-9	
n-Butylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:11	104-51-8	
sec-Butylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:11	135-98-8	
tert-Butylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:11	98-06-6	
Carbon tetrachloride	<0.50	ug/L	0.50	5	1		06/08/23 15:11	56-23-5	
Chlorobenzene	<0.50	ug/L	0.50	100	1		06/08/23 15:11	108-90-7	
Chlorodifluoromethane	<0.50	ug/L	0.50		1		06/08/23 15:11	75-45-6	N3
Chloroethane	<0.50	ug/L	0.50		1		06/08/23 15:11	75-00-3	
Chloroform	<0.50	ug/L	0.50	80	1		06/08/23 15:11	67-66-3	
Chloromethane	<0.50	ug/L	0.50		1		06/08/23 15:11	74-87-3	
2-Chlorotoluene	<0.50	ug/L	0.50		1		06/08/23 15:11	95-49-8	
4-Chlorotoluene	<0.50	ug/L	0.50		1		06/08/23 15:11	106-43-4	
Dibromochloromethane	<0.50	ug/L	0.50	80	1		06/08/23 15:11	124-48-1	
Dibromomethane	<0.50	ug/L	0.50		1		06/08/23 15:11	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	0.50	600	1		06/08/23 15:11	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	0.50		1		06/08/23 15:11	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	0.50	75	1		06/08/23 15:11	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	0.50		1		06/08/23 15:11	75-71-8	
1,1-Dichloroethane	<0.50	ug/L	0.50		1		06/08/23 15:11	75-34-3	
1,2-Dichloroethane	<0.50	ug/L	0.50	5	1		06/08/23 15:11	107-06-2	
1,1-Dichloroethene	<0.50	ug/L	0.50	7	1		06/08/23 15:11	75-35-4	
cis-1,2-Dichloroethene	<0.50	ug/L	0.50	70	1		06/08/23 15:11	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/L	0.50	100	1		06/08/23 15:11	156-60-5	
1,2-Dichloropropane	<0.50	ug/L	0.50	5	1		06/08/23 15:11	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	0.50		1		06/08/23 15:11	142-28-9	
2,2-Dichloropropane	<0.50	ug/L	0.50		1		06/08/23 15:11	594-20-7	
1,1-Dichloropropene	<0.50	ug/L	0.50		1		06/08/23 15:11	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	0.50		1		06/08/23 15:11	10061-01-5	
trans-1,3-Dichloropropene	<0.50	ug/L	0.50		1		06/08/23 15:11	10061-02-6	
Ethylbenzene	<0.50	ug/L	0.50	700	1		06/08/23 15:11	100-41-4	
Hexachloro-1,3-butadiene	<0.50	ug/L	0.50		1		06/08/23 15:11	87-68-3	
Isopropylbenzene (Cumene)	<0.50	ug/L	0.50		1		06/08/23 15:11	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	0.50		1		06/08/23 15:11	99-87-6	
Methylene Chloride	<0.50	ug/L	0.50	5	1		06/08/23 15:11	75-09-2	
Methyl-tert-butyl ether	<0.50	ug/L	0.50		1		06/08/23 15:11	1634-04-4	
n-Propylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:11	103-65-1	
Styrene	<0.50	ug/L	0.50	100	1		06/08/23 15:11	100-42-5	
1,1,1,2-Tetrachloroethane	<0.50	ug/L	0.50		1		06/08/23 15:11	630-20-6	
1,1,1,2,2-Tetrachloroethane	<0.50	ug/L	0.50		1		06/08/23 15:11	79-34-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2
Pace Project No.: 70258374

Sample: GAC-3S/4S(SEAMAN NECKGACEFF)-D **Lab ID:** 70258374002 Collected: 06/02/23 09:45 Received: 06/02/23 11:44 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV									
Analytical Method: EPA 524.2									
Pace Analytical Services - Melville									
Tetrachloroethene	<0.50	ug/L	0.50	5	1		06/08/23 15:11	127-18-4	
Toluene	<0.50	ug/L	0.50	1000	1		06/08/23 15:11	108-88-3	
Total Trihalomethanes (Calc.)	<0.50	ug/L	0.50	80	1		06/08/23 15:11		
1,2,3-Trichlorobenzene	<0.50	ug/L	0.50		1		06/08/23 15:11	87-61-6	
1,2,4-Trichlorobenzene	<0.50	ug/L	0.50	70	1		06/08/23 15:11	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	0.50	200	1		06/08/23 15:11	71-55-6	
1,1,2-Trichloroethane	<0.50	ug/L	0.50	5	1		06/08/23 15:11	79-00-5	
Trichloroethene	<0.50	ug/L	0.50	5	1		06/08/23 15:11	79-01-6	
Trichlorofluoromethane	<0.50	ug/L	0.50		1		06/08/23 15:11	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	0.50		1		06/08/23 15:11	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.50	ug/L	0.50		1		06/08/23 15:11	76-13-1	N3
1,2,4-Trimethylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:11	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:11	108-67-8	
Vinyl chloride	<0.50	ug/L	0.50	2	1		06/08/23 15:11	75-01-4	
m&p-Xylene	<0.50	ug/L	0.50		1		06/08/23 15:11	179601-23-1	
o-Xylene	<0.50	ug/L	0.50		1		06/08/23 15:11	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	86	%	70-130		1		06/08/23 15:11	2199-69-1	
4-Bromofluorobenzene (S)	77	%	70-130		1		06/08/23 15:11	460-00-4	

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ANALYTICAL RESULTS

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2

Pace Project No.: 70258374

Sample: WELL 3A N-1347 (INFLUENT) **Lab ID: 70258374003** Collected: 06/02/23 10:05 Received: 06/02/23 11:44 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
522 MSS 1,4 Dioxane (SIM)									
Analytical Method: EPA 522 Preparation Method: EPA 522									
Pace Analytical Services - Melville									
1,4-Dioxane (p-Dioxane)	2.1	ug/L	0.020		1	06/06/23 11:37	06/06/23 21:54	123-91-1	
Surrogates									
1,4-Dioxane-d8 (S)	99	%	70-130		1	06/06/23 11:37	06/06/23 21:54		
524.2 MSV									
Analytical Method: EPA 524.2									
Pace Analytical Services - Melville									
Benzene	<0.50	ug/L	0.50	5	1		06/08/23 15:33	71-43-2	
Bromobenzene	<0.50	ug/L	0.50		1		06/08/23 15:33	108-86-1	
Bromochloromethane	<0.50	ug/L	0.50		1		06/08/23 15:33	74-97-5	
Bromodichloromethane	<0.50	ug/L	0.50	80	1		06/08/23 15:33	75-27-4	
Bromoform	<0.50	ug/L	0.50	80	1		06/08/23 15:33	75-25-2	
Bromomethane	<0.50	ug/L	0.50		1		06/08/23 15:33	74-83-9	
n-Butylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:33	104-51-8	
sec-Butylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:33	135-98-8	
tert-Butylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:33	98-06-6	
Carbon tetrachloride	<0.50	ug/L	0.50	5	1		06/08/23 15:33	56-23-5	
Chlorobenzene	<0.50	ug/L	0.50	100	1		06/08/23 15:33	108-90-7	
Chlorodifluoromethane	<0.50	ug/L	0.50		1		06/08/23 15:33	75-45-6	N3
Chloroethane	<0.50	ug/L	0.50		1		06/08/23 15:33	75-00-3	
Chloroform	<0.50	ug/L	0.50	80	1		06/08/23 15:33	67-66-3	
Chloromethane	<0.50	ug/L	0.50		1		06/08/23 15:33	74-87-3	
2-Chlorotoluene	<0.50	ug/L	0.50		1		06/08/23 15:33	95-49-8	
4-Chlorotoluene	<0.50	ug/L	0.50		1		06/08/23 15:33	106-43-4	
Dibromochloromethane	<0.50	ug/L	0.50	80	1		06/08/23 15:33	124-48-1	
Dibromomethane	<0.50	ug/L	0.50		1		06/08/23 15:33	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	0.50	600	1		06/08/23 15:33	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	0.50		1		06/08/23 15:33	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	0.50	75	1		06/08/23 15:33	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	0.50		1		06/08/23 15:33	75-71-8	
1,1-Dichloroethane	<0.50	ug/L	0.50		1		06/08/23 15:33	75-34-3	
1,2-Dichloroethane	<0.50	ug/L	0.50	5	1		06/08/23 15:33	107-06-2	
1,1-Dichloroethene	0.55	ug/L	0.50	7	1		06/08/23 15:33	75-35-4	
cis-1,2-Dichloroethene	<0.50	ug/L	0.50	70	1		06/08/23 15:33	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/L	0.50	100	1		06/08/23 15:33	156-60-5	
1,2-Dichloropropane	<0.50	ug/L	0.50	5	1		06/08/23 15:33	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	0.50		1		06/08/23 15:33	142-28-9	
2,2-Dichloropropane	<0.50	ug/L	0.50		1		06/08/23 15:33	594-20-7	
1,1-Dichloropropene	<0.50	ug/L	0.50		1		06/08/23 15:33	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	0.50		1		06/08/23 15:33	10061-01-5	
trans-1,3-Dichloropropene	<0.50	ug/L	0.50		1		06/08/23 15:33	10061-02-6	
Ethylbenzene	<0.50	ug/L	0.50	700	1		06/08/23 15:33	100-41-4	
Hexachloro-1,3-butadiene	<0.50	ug/L	0.50		1		06/08/23 15:33	87-68-3	
Isopropylbenzene (Cumene)	<0.50	ug/L	0.50		1		06/08/23 15:33	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	0.50		1		06/08/23 15:33	99-87-6	

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ANALYTICAL RESULTS

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2

Pace Project No.: 70258374

Sample: WELL 3A N-1347 (INFLUENT) **Lab ID: 70258374003** Collected: 06/02/23 10:05 Received: 06/02/23 11:44 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV									
Analytical Method: EPA 524.2									
Pace Analytical Services - Melville									
Methylene Chloride	<0.50	ug/L	0.50	5	1		06/08/23 15:33	75-09-2	
Methyl-tert-butyl ether	<0.50	ug/L	0.50		1		06/08/23 15:33	1634-04-4	
n-Propylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:33	103-65-1	
Styrene	<0.50	ug/L	0.50	100	1		06/08/23 15:33	100-42-5	
1,1,1,2-Tetrachloroethane	<0.50	ug/L	0.50		1		06/08/23 15:33	630-20-6	
1,1,2,2-Tetrachloroethane	<0.50	ug/L	0.50		1		06/08/23 15:33	79-34-5	
Tetrachloroethene	<0.50	ug/L	0.50	5	1		06/08/23 15:33	127-18-4	
Toluene	<0.50	ug/L	0.50	1000	1		06/08/23 15:33	108-88-3	
Total Trihalomethanes (Calc.)	<0.50	ug/L	0.50	80	1		06/08/23 15:33		
1,2,3-Trichlorobenzene	<0.50	ug/L	0.50		1		06/08/23 15:33	87-61-6	
1,2,4-Trichlorobenzene	<0.50	ug/L	0.50	70	1		06/08/23 15:33	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	0.50	200	1		06/08/23 15:33	71-55-6	
1,1,2-Trichloroethane	<0.50	ug/L	0.50	5	1		06/08/23 15:33	79-00-5	
Trichloroethene	21.7	ug/L	0.50	5	1		06/08/23 15:33	79-01-6	
Trichlorofluoromethane	<0.50	ug/L	0.50		1		06/08/23 15:33	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	0.50		1		06/08/23 15:33	96-18-4	
1,1,2-Trichlorotrifluoroethane	0.92	ug/L	0.50		1		06/08/23 15:33	76-13-1	N3
1,2,4-Trimethylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:33	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:33	108-67-8	
Vinyl chloride	<0.50	ug/L	0.50	2	1		06/08/23 15:33	75-01-4	
m&p-Xylene	<0.50	ug/L	0.50		1		06/08/23 15:33	179601-23-1	
o-Xylene	<0.50	ug/L	0.50		1		06/08/23 15:33	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	85	%	70-130		1		06/08/23 15:33	2199-69-1	
4-Bromofluorobenzene (S)	81	%	70-130		1		06/08/23 15:33	460-00-4	

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ANALYTICAL RESULTS

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2

Pace Project No.: 70258374

Sample: WELL 4 N-09338 (INFLUENT) **Lab ID: 70258374004** Collected: 06/02/23 10:05 Received: 06/02/23 11:44 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
522 MSS 1,4 Dioxane (SIM)									
Analytical Method: EPA 522 Preparation Method: EPA 522									
Pace Analytical Services - Melville									
1,4-Dioxane (p-Dioxane)	1.7	ug/L	0.020		1	06/06/23 11:37	06/06/23 22:11	123-91-1	
Surrogates									
1,4-Dioxane-d8 (S)	99	%	70-130		1	06/06/23 11:37	06/06/23 22:11		
524.2 MSV									
Analytical Method: EPA 524.2									
Pace Analytical Services - Melville									
Benzene	<0.50	ug/L	0.50	5	1		06/08/23 15:55	71-43-2	
Bromobenzene	<0.50	ug/L	0.50		1		06/08/23 15:55	108-86-1	
Bromochloromethane	<0.50	ug/L	0.50		1		06/08/23 15:55	74-97-5	
Bromodichloromethane	<0.50	ug/L	0.50	80	1		06/08/23 15:55	75-27-4	
Bromoform	<0.50	ug/L	0.50	80	1		06/08/23 15:55	75-25-2	
Bromomethane	<0.50	ug/L	0.50		1		06/08/23 15:55	74-83-9	
n-Butylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:55	104-51-8	
sec-Butylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:55	135-98-8	
tert-Butylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:55	98-06-6	
Carbon tetrachloride	<0.50	ug/L	0.50	5	1		06/08/23 15:55	56-23-5	
Chlorobenzene	<0.50	ug/L	0.50	100	1		06/08/23 15:55	108-90-7	
Chlorodifluoromethane	<0.50	ug/L	0.50		1		06/08/23 15:55	75-45-6	N3
Chloroethane	<0.50	ug/L	0.50		1		06/08/23 15:55	75-00-3	
Chloroform	<0.50	ug/L	0.50	80	1		06/08/23 15:55	67-66-3	
Chloromethane	<0.50	ug/L	0.50		1		06/08/23 15:55	74-87-3	
2-Chlorotoluene	<0.50	ug/L	0.50		1		06/08/23 15:55	95-49-8	
4-Chlorotoluene	<0.50	ug/L	0.50		1		06/08/23 15:55	106-43-4	
Dibromochloromethane	<0.50	ug/L	0.50	80	1		06/08/23 15:55	124-48-1	
Dibromomethane	<0.50	ug/L	0.50		1		06/08/23 15:55	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	0.50	600	1		06/08/23 15:55	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	0.50		1		06/08/23 15:55	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	0.50	75	1		06/08/23 15:55	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	0.50		1		06/08/23 15:55	75-71-8	
1,1-Dichloroethane	<0.50	ug/L	0.50		1		06/08/23 15:55	75-34-3	
1,2-Dichloroethane	<0.50	ug/L	0.50	5	1		06/08/23 15:55	107-06-2	
1,1-Dichloroethene	<0.50	ug/L	0.50	7	1		06/08/23 15:55	75-35-4	
cis-1,2-Dichloroethene	<0.50	ug/L	0.50	70	1		06/08/23 15:55	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/L	0.50	100	1		06/08/23 15:55	156-60-5	
1,2-Dichloropropane	<0.50	ug/L	0.50	5	1		06/08/23 15:55	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	0.50		1		06/08/23 15:55	142-28-9	
2,2-Dichloropropane	<0.50	ug/L	0.50		1		06/08/23 15:55	594-20-7	
1,1-Dichloropropene	<0.50	ug/L	0.50		1		06/08/23 15:55	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	0.50		1		06/08/23 15:55	10061-01-5	
trans-1,3-Dichloropropene	<0.50	ug/L	0.50		1		06/08/23 15:55	10061-02-6	
Ethylbenzene	<0.50	ug/L	0.50	700	1		06/08/23 15:55	100-41-4	
Hexachloro-1,3-butadiene	<0.50	ug/L	0.50		1		06/08/23 15:55	87-68-3	
Isopropylbenzene (Cumene)	<0.50	ug/L	0.50		1		06/08/23 15:55	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	0.50		1		06/08/23 15:55	99-87-6	

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ANALYTICAL RESULTS

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2

Pace Project No.: 70258374

Sample: WELL 4 N-09338 (INFLUENT) **Lab ID: 70258374004** Collected: 06/02/23 10:05 Received: 06/02/23 11:44 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV									
Analytical Method: EPA 524.2									
Pace Analytical Services - Melville									
Methylene Chloride	<0.50	ug/L	0.50	5	1		06/08/23 15:55	75-09-2	
Methyl-tert-butyl ether	<0.50	ug/L	0.50		1		06/08/23 15:55	1634-04-4	
n-Propylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:55	103-65-1	
Styrene	<0.50	ug/L	0.50	100	1		06/08/23 15:55	100-42-5	
1,1,1,2-Tetrachloroethane	<0.50	ug/L	0.50		1		06/08/23 15:55	630-20-6	
1,1,2,2-Tetrachloroethane	<0.50	ug/L	0.50		1		06/08/23 15:55	79-34-5	
Tetrachloroethene	<0.50	ug/L	0.50	5	1		06/08/23 15:55	127-18-4	
Toluene	<0.50	ug/L	0.50	1000	1		06/08/23 15:55	108-88-3	
Total Trihalomethanes (Calc.)	<0.50	ug/L	0.50	80	1		06/08/23 15:55		
1,2,3-Trichlorobenzene	<0.50	ug/L	0.50		1		06/08/23 15:55	87-61-6	
1,2,4-Trichlorobenzene	<0.50	ug/L	0.50	70	1		06/08/23 15:55	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	0.50	200	1		06/08/23 15:55	71-55-6	
1,1,2-Trichloroethane	<0.50	ug/L	0.50	5	1		06/08/23 15:55	79-00-5	
Trichloroethene	2.4	ug/L	0.50	5	1		06/08/23 15:55	79-01-6	
Trichlorofluoromethane	<0.50	ug/L	0.50		1		06/08/23 15:55	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	0.50		1		06/08/23 15:55	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.50	ug/L	0.50		1		06/08/23 15:55	76-13-1	N3
1,2,4-Trimethylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:55	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	0.50		1		06/08/23 15:55	108-67-8	
Vinyl chloride	<0.50	ug/L	0.50	2	1		06/08/23 15:55	75-01-4	
m&p-Xylene	<0.50	ug/L	0.50		1		06/08/23 15:55	179601-23-1	
o-Xylene	<0.50	ug/L	0.50		1		06/08/23 15:55	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	87	%	70-130		1		06/08/23 15:55	2199-69-1	
4-Bromofluorobenzene (S)	77	%	70-130		1		06/08/23 15:55	460-00-4	

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QUALITY CONTROL DATA

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2
Pace Project No.: 70258374

QC Batch: 308021 Analysis Method: EPA 524.2
QC Batch Method: EPA 524.2 Analysis Description: 524.2 MSV
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70258374001, 70258374002, 70258374003, 70258374004

METHOD BLANK: 1561281 Matrix: Water
Associated Lab Samples: 70258374001, 70258374002, 70258374003, 70258374004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	06/08/23 08:24	
1,1,1-Trichloroethane	ug/L	<0.50	0.50	06/08/23 08:24	
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	06/08/23 08:24	
1,1,2-Trichloroethane	ug/L	<0.50	0.50	06/08/23 08:24	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.50	0.50	06/08/23 08:24	N3
1,1-Dichloroethane	ug/L	<0.50	0.50	06/08/23 08:24	
1,1-Dichloroethene	ug/L	<0.50	0.50	06/08/23 08:24	
1,1-Dichloropropene	ug/L	<0.50	0.50	06/08/23 08:24	
1,2,3-Trichlorobenzene	ug/L	<0.50	0.50	06/08/23 08:24	
1,2,3-Trichloropropane	ug/L	<0.50	0.50	06/08/23 08:24	
1,2,4-Trichlorobenzene	ug/L	<0.50	0.50	06/08/23 08:24	
1,2,4-Trimethylbenzene	ug/L	<0.50	0.50	06/08/23 08:24	
1,2-Dichlorobenzene	ug/L	<0.50	0.50	06/08/23 08:24	
1,2-Dichloroethane	ug/L	<0.50	0.50	06/08/23 08:24	
1,2-Dichloropropane	ug/L	<0.50	0.50	06/08/23 08:24	
1,3,5-Trimethylbenzene	ug/L	<0.50	0.50	06/08/23 08:24	
1,3-Dichlorobenzene	ug/L	<0.50	0.50	06/08/23 08:24	
1,3-Dichloropropane	ug/L	<0.50	0.50	06/08/23 08:24	
1,4-Dichlorobenzene	ug/L	<0.50	0.50	06/08/23 08:24	
2,2-Dichloropropane	ug/L	<0.50	0.50	06/08/23 08:24	
2-Chlorotoluene	ug/L	<0.50	0.50	06/08/23 08:24	
4-Chlorotoluene	ug/L	<0.50	0.50	06/08/23 08:24	
Benzene	ug/L	<0.50	0.50	06/08/23 08:24	
Bromobenzene	ug/L	<0.50	0.50	06/08/23 08:24	
Bromochloromethane	ug/L	<0.50	0.50	06/08/23 08:24	
Bromodichloromethane	ug/L	<0.50	0.50	06/08/23 08:24	
Bromoform	ug/L	<0.50	0.50	06/08/23 08:24	
Bromomethane	ug/L	<0.50	0.50	06/08/23 08:24	
Carbon tetrachloride	ug/L	<0.50	0.50	06/08/23 08:24	
Chlorobenzene	ug/L	<0.50	0.50	06/08/23 08:24	
Chlorodifluoromethane	ug/L	<0.50	0.50	06/08/23 08:24	N3
Chloroethane	ug/L	<0.50	0.50	06/08/23 08:24	
Chloroform	ug/L	<0.50	0.50	06/08/23 08:24	
Chloromethane	ug/L	<0.50	0.50	06/08/23 08:24	
cis-1,2-Dichloroethene	ug/L	<0.50	0.50	06/08/23 08:24	
cis-1,3-Dichloropropene	ug/L	<0.50	0.50	06/08/23 08:24	
Dibromochloromethane	ug/L	<0.50	0.50	06/08/23 08:24	
Dibromomethane	ug/L	<0.50	0.50	06/08/23 08:24	
Dichlorodifluoromethane	ug/L	<0.50	0.50	06/08/23 08:24	
Ethylbenzene	ug/L	<0.50	0.50	06/08/23 08:24	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2
Pace Project No.: 70258374

METHOD BLANK: 1561281 Matrix: Water
Associated Lab Samples: 70258374001, 70258374002, 70258374003, 70258374004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<0.50	0.50	06/08/23 08:24	
Isopropylbenzene (Cumene)	ug/L	<0.50	0.50	06/08/23 08:24	
m&p-Xylene	ug/L	<0.50	0.50	06/08/23 08:24	
Methyl-tert-butyl ether	ug/L	<0.50	0.50	06/08/23 08:24	
Methylene Chloride	ug/L	<0.50	0.50	06/08/23 08:24	
n-Butylbenzene	ug/L	<0.50	0.50	06/08/23 08:24	
n-Propylbenzene	ug/L	<0.50	0.50	06/08/23 08:24	
o-Xylene	ug/L	<0.50	0.50	06/08/23 08:24	
p-Isopropyltoluene	ug/L	<0.50	0.50	06/08/23 08:24	
sec-Butylbenzene	ug/L	<0.50	0.50	06/08/23 08:24	
Styrene	ug/L	<0.50	0.50	06/08/23 08:24	
tert-Butylbenzene	ug/L	<0.50	0.50	06/08/23 08:24	
Tetrachloroethene	ug/L	<0.50	0.50	06/08/23 08:24	
Toluene	ug/L	<0.50	0.50	06/08/23 08:24	
Total Trihalomethanes (Calc.)	ug/L	<0.50	0.50	06/08/23 08:24	
trans-1,2-Dichloroethene	ug/L	<0.50	0.50	06/08/23 08:24	
trans-1,3-Dichloropropene	ug/L	<0.50	0.50	06/08/23 08:24	
Trichloroethene	ug/L	<0.50	0.50	06/08/23 08:24	
Trichlorofluoromethane	ug/L	<0.50	0.50	06/08/23 08:24	
Vinyl chloride	ug/L	<0.50	0.50	06/08/23 08:24	
1,2-Dichlorobenzene-d4 (S)	%	84	70-130	06/08/23 08:24	
4-Bromofluorobenzene (S)	%	77	70-130	06/08/23 08:24	

LABORATORY CONTROL SAMPLE: 1561282

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	10	9.8	98	70-130	
1,1,1-Trichloroethane	ug/L	10	10	100	70-130	
1,1,2,2-Tetrachloroethane	ug/L	10	9.9	99	70-130	
1,1,2-Trichloroethane	ug/L	10	10	100	70-130	
1,1,2-Trichlorotrifluoroethane	ug/L	10	10.3	103	70-130	N3
1,1-Dichloroethane	ug/L	10	9.8	98	70-130	
1,1-Dichloroethene	ug/L	10	8.9	89	70-130	
1,1-Dichloropropene	ug/L	10	9.7	97	70-130	
1,2,3-Trichlorobenzene	ug/L	10	10.6	106	70-130	
1,2,3-Trichloropropane	ug/L	10	9.8	98	70-130	
1,2,4-Trichlorobenzene	ug/L	10	9.7	97	70-130	
1,2,4-Trimethylbenzene	ug/L	10	10.1	101	70-130	
1,2-Dichlorobenzene	ug/L	10	9.7	97	70-130	
1,2-Dichloroethane	ug/L	10	9.9	99	70-130	
1,2-Dichloropropane	ug/L	10	9.4	94	70-130	
1,3,5-Trimethylbenzene	ug/L	10	10	100	70-130	
1,3-Dichlorobenzene	ug/L	10	9.9	99	70-130	
1,3-Dichloropropane	ug/L	10	9.3	93	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2

Pace Project No.: 70258374

LABORATORY CONTROL SAMPLE: 1561282

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	10	10.3	103	70-130	
2,2-Dichloropropane	ug/L	10	10.2	102	70-130	
2-Chlorotoluene	ug/L	10	10.3	103	70-130	
4-Chlorotoluene	ug/L	10	10.5	105	70-130	
Benzene	ug/L	10	9.5	95	70-130	
Bromobenzene	ug/L	10	10	100	70-130	
Bromochloromethane	ug/L	10	10.0	100	70-130	
Bromodichloromethane	ug/L	10	10.2	102	70-130	
Bromoform	ug/L	10	10.5	105	70-130	
Bromomethane	ug/L	10	9.1	91	70-130	
Carbon tetrachloride	ug/L	10	10	100	70-130	
Chlorobenzene	ug/L	10	9.5	95	70-130	
Chlorodifluoromethane	ug/L	10	8.7	87	70-130	N3
Chloroethane	ug/L	10	9.8	98	70-130	
Chloroform	ug/L	10	9.8	98	70-130	
Chloromethane	ug/L	10	10.3	103	70-130	
cis-1,2-Dichloroethene	ug/L	10	9.8	98	70-130	
cis-1,3-Dichloropropene	ug/L	10	9.6	96	70-130	
Dibromochloromethane	ug/L	10	9.7	97	70-130	
Dibromomethane	ug/L	10	9.5	95	70-130	
Dichlorodifluoromethane	ug/L	10	8.9	89	70-130	
Ethylbenzene	ug/L	10	9.3	93	70-130	
Hexachloro-1,3-butadiene	ug/L	10	11.8	118	70-130	
Isopropylbenzene (Cumene)	ug/L	10	9.5	95	70-130	
m&p-Xylene	ug/L	20	19.6	98	70-130	
Methyl-tert-butyl ether	ug/L	10	10	100	70-130	
Methylene Chloride	ug/L	10	9.5	95	70-130	
n-Butylbenzene	ug/L	10	10.6	106	70-130	
n-Propylbenzene	ug/L	10	9.8	98	70-130	
o-Xylene	ug/L	10	10.1	101	70-130	
p-Isopropyltoluene	ug/L	10	10	100	70-130	
sec-Butylbenzene	ug/L	10	10.4	104	70-130	
Styrene	ug/L	10	10.2	102	70-130	
tert-Butylbenzene	ug/L	10	9.9	99	70-130	
Tetrachloroethene	ug/L	10	10.4	104	70-130	
Toluene	ug/L	10	9.1	91	70-130	
Total Trihalomethanes (Calc.)	ug/L		40.1			
trans-1,2-Dichloroethene	ug/L	10	10.0	100	70-130	
trans-1,3-Dichloropropene	ug/L	10	9.7	97	70-130	
Trichloroethene	ug/L	10	9.6	96	70-130	
Trichlorofluoromethane	ug/L	10	10.2	102	70-130	
Vinyl chloride	ug/L	10	9.7	97	70-130	
1,2-Dichlorobenzene-d4 (S)	%			100	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	

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QUALITY CONTROL DATA

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2

Pace Project No.: 70258374

SAMPLE DUPLICATE: 1562296

Parameter	Units	70258383001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50		20	
1,1,1-Trichloroethane	ug/L	<0.50	<0.50		20	
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50		20	
1,1,2-Trichloroethane	ug/L	<0.50	<0.50		20	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.50	<0.50		20	N3
1,1-Dichloroethane	ug/L	<0.50	<0.50		20	
1,1-Dichloroethene	ug/L	<0.50	<0.50		20	
1,1-Dichloropropene	ug/L	<0.50	<0.50		20	
1,2,3-Trichlorobenzene	ug/L	<0.50	<0.50		20	
1,2,3-Trichloropropane	ug/L	<0.50	<0.50		20	
1,2,4-Trichlorobenzene	ug/L	<0.50	<0.50		20	
1,2,4-Trimethylbenzene	ug/L	<0.50	<0.50		20	
1,2-Dichlorobenzene	ug/L	<0.50	<0.50		20	
1,2-Dichloroethane	ug/L	<0.50	<0.50		20	
1,2-Dichloropropane	ug/L	<0.50	<0.50		20	
1,3,5-Trimethylbenzene	ug/L	<0.50	<0.50		20	
1,3-Dichlorobenzene	ug/L	<0.50	<0.50		20	
1,3-Dichloropropane	ug/L	<0.50	<0.50		20	
1,4-Dichlorobenzene	ug/L	<0.50	<0.50		20	
2,2-Dichloropropane	ug/L	<0.50	<0.50		20	
2-Chlorotoluene	ug/L	<0.50	<0.50		20	
4-Chlorotoluene	ug/L	<0.50	<0.50		20	
Benzene	ug/L	<0.50	<0.50		20	
Bromobenzene	ug/L	<0.50	<0.50		20	
Bromochloromethane	ug/L	<0.50	<0.50		20	
Bromodichloromethane	ug/L	<0.50	<0.50		20	
Bromoform	ug/L	<0.50	<0.50		20	
Bromomethane	ug/L	<0.50	<0.50		20	
Carbon tetrachloride	ug/L	<0.50	<0.50		20	
Chlorobenzene	ug/L	<0.50	<0.50		20	
Chlorodifluoromethane	ug/L	<0.50	<0.50		20	N3
Chloroethane	ug/L	<0.50	<0.50		20	
Chloroform	ug/L	<0.50	<0.50		20	
Chloromethane	ug/L	<0.50	<0.50		20	
cis-1,2-Dichloroethene	ug/L	<0.50	<0.50		20	
cis-1,3-Dichloropropene	ug/L	<0.50	<0.50		20	
Dibromochloromethane	ug/L	<0.50	<0.50		20	
Dibromomethane	ug/L	<0.50	<0.50		20	
Dichlorodifluoromethane	ug/L	<0.50	<0.50		20	
Ethylbenzene	ug/L	<0.50	<0.50		20	
Hexachloro-1,3-butadiene	ug/L	<0.50	<0.50		20	
Isopropylbenzene (Cumene)	ug/L	<0.50	<0.50		20	
m&p-Xylene	ug/L	<0.50	<0.50		20	
Methyl-tert-butyl ether	ug/L	<0.50	<0.50		20	
Methylene Chloride	ug/L	<0.50	<0.50		20	
n-Butylbenzene	ug/L	<0.50	<0.50		20	
n-Propylbenzene	ug/L	<0.50	<0.50		20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2

Pace Project No.: 70258374

SAMPLE DUPLICATE: 1562296

Parameter	Units	70258383001 Result	Dup Result	RPD	Max RPD	Qualifiers
o-Xylene	ug/L	<0.50	<0.50		20	
p-Isopropyltoluene	ug/L	<0.50	<0.50		20	
sec-Butylbenzene	ug/L	<0.50	<0.50		20	
Styrene	ug/L	<0.50	<0.50		20	
tert-Butylbenzene	ug/L	<0.50	<0.50		20	
Tetrachloroethene	ug/L	<0.50	<0.50		20	
Toluene	ug/L	<0.50	<0.50		20	
Total Trihalomethanes (Calc.)	ug/L	<0.50	<0.50		20	
trans-1,2-Dichloroethene	ug/L	<0.50	<0.50		20	
trans-1,3-Dichloropropene	ug/L	<0.50	<0.50		20	
Trichloroethene	ug/L	2.4	2.5	5	20	
Trichlorofluoromethane	ug/L	<0.50	<0.50		20	
Vinyl chloride	ug/L	<0.50	<0.50		20	
1,2-Dichlorobenzene-d4 (S)	%	87	84		20	
4-Bromofluorobenzene (S)	%	78	81		20	

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QUALITY CONTROL DATA

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2

Pace Project No.: 70258374

QC Batch:	307627	Analysis Method:	EPA 522
QC Batch Method:	EPA 522	Analysis Description:	522 MSS 1,4 Dioxane
		Laboratory:	Pace Analytical Services - Melville

Associated Lab Samples: 70258374001, 70258374003, 70258374004

METHOD BLANK: 1559026 Matrix: Drinking Water

Associated Lab Samples: 70258374001, 70258374003, 70258374004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.020	0.020	06/06/23 16:51	
1,4-Dioxane-d8 (S)	%	94	70-130	06/06/23 16:51	

LABORATORY CONTROL SAMPLE: 1559027

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	0.02	<0.020	86	70-130	
1,4-Dioxane-d8 (S)	%			92	70-130	

MATRIX SPIKE SAMPLE: 1559032

Parameter	Units	70258149001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	1.4	0.02	1.5	97	70-130	
1,4-Dioxane-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1559033

Parameter	Units	70258149002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.020	<0.020		30	
1,4-Dioxane-d8 (S)	%	95	94		30	

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QUALIFIERS

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2

Pace Project No.: 70258374

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

N3 Accreditation is not offered by the relevant laboratory accrediting body for this parameter.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NYAW-MERRICKOPS-POC/1,4DIOX6/2
Pace Project No.: 70258374

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70258374001	GAC-3S/4S(SEAMAN NECK GAC EFF)	EPA 522	307627	EPA 522	307766
70258374003	WELL 3A N-1347 (INFLUENT)	EPA 522	307627	EPA 522	307766
70258374004	WELL 4 N-09338 (INFLUENT)	EPA 522	307627	EPA 522	307766
70258374001	GAC-3S/4S(SEAMAN NECK GAC EFF)	EPA 524.2	308021		
70258374002	GAC-3S/4S(SEAMAN NECKGACEFF)-D	EPA 524.2	308021		
70258374003	WELL 3A N-1347 (INFLUENT)	EPA 524.2	308021		
70258374004	WELL 4 N-09338 (INFLUENT)	EPA 524.2	308021		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Required Client Information:
 Company: KOMAN Government Solutions, LLC
 Address: 180 Gordon Dr., Suite 110
 Exton, PA
 Email: RGregory@komanqs.com
 Phone: (610) 400-0636 Fax:
 Requested Due Date:

Section B

Required Project Information:
 Report To: Robert Gregory
 Copy To: NCDOH
 Purchase Order #: 02607-005
 Project Name: NYAW-MERRICK OPS FACILITY
 Project #: 02607-005

Section C

Invoice Information:
 Attention: Accounts Payable
 Company Name: KOMAN Government Solutions, LLC
 Address: accountspavable@komanqs.com
 Pace Quote:
 Pace Project Manager: Kimberley.Mack@Pacelabs.com
 Pace Profile #:

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	CODE DW WT WW PD SL OL WP AR OT TS	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Y/N	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)								
					START		END				Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other		Requested Analysis Filtered (Y/N)																		
					DATE	TIME	DATE	TIME												Requested Analysis Filtered (Y/N)																		
																				Requested Analysis Filtered (Y/N)																		
1	GAC-3S/4S (Seaman Neck GAC Effluent)	DW	G				6/23	9:40	4								X	X																				
2	GAC-3S/4S (Seaman Neck GAC Effluent)-D	DW	G				6/23	9:45	2				X					X																				
3	Well 3A N-14347 (Influent)	DW	G				6/23	10:05	4				X		X			X	X																			
4	Well 4 N-09338 (Influent)	DW	G				6/23	10:20	4				X		X			X	X																			
5																																						
6																																						
7																																						
8																																						
9																																						
10																																						
11																																						
12																																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	(W) SAMPLE CONDITIONS
	<i>Randy Hoffmaster</i>	6/23		<i>Jim V. Dreli</i>	6/23	11:44:28	

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on face (Y/N)	Custody Sealed (Y/N)	Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Randy Hoffmaster					
SIGNATURE of SAMPLER:	<i>Randy Hoffmaster</i>					
DATE Signed: 6-2-2023						

WO#: 70258374

PM: KMM Due Date: 06/13/23
 CLIENT: KGS

Client Name: _____ Project #: _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No Temperature Blank Present: Yes No
 Packing Material: Bubble Wrap Bubble Bags Ziploc None Other Type of Ice: Wet Blue None

Thermometer Used: TH148 Correction Factor: -0.3 Samples on ice, cooling process has begun
 Cooler Temperature (°C): 2.8 Cooler Temperature Corrected (°C): 2.5 Date/Time 5035A kits placed in freezer _____

Temp should be above freezing to 6.0°C

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? Yes No

Did samples originate from a foreign source including Hawaii and Puerto Rico? Yes No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MELV-0076) and include with SCUR/COC paperwork.

Date and Initials of person examining contents: SH 6/1/23

	COMMENTS:
Chain of Custody Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name & Signature on COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume: (Triple volume provided for MS/MSD) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. Note: if sediment is visible in the dissolved container,
Sample Labels match COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
-Includes date/time/ID/Analysis: Matrix: <input checked="" type="checkbox"/> SL <input type="checkbox"/> WT <input type="checkbox"/> OIL <input type="checkbox"/> OTHER	

Date and Initials of person checking preservation: SH 6/1/23

All containers needing preservation have been pH paper Lot # All containers needing preservation are found to be in compliance with method recommendation? (HNO ₃ , H ₂ SO ₄ , HCl, NaOH>9 Sulfide, <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	13. <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
Samples checked for dechlorination: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. Sample #
KI starch test strips Lot # Residual chlorine strips Lot #	Initial when completed: _____ Lot # of added preservative: _____ Date/Time preservative added: _____
SM 4500 CN samples checked for sul <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15. Positive for Res. Chlorine? Y N
Lead Acetate Strips Lot #	16. Positive for Sulfide? Y N
Headspace in VOA Vials (>6mm): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	17.
Trip Blank Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Trip Blank Custody Seals Present: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

Client Notification/ Resolution: _____ Field Data Required? Y / N
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

* PM (Project Manager) review is documented electronically in LIMS.