Jeffries, Dawn (DEQ)

From: Don Smiley [DESmiley@uiwater.com]
Sent: Wednesday, July 15, 2015 3:15 PM
To: Jeffries, Dawn (DEQ)
Subject: FW: Analytical Report: 1507687,Expanded Effluent Testing Data
Attachments: COC_1507687_v1.pdf; Rpt_1507687_Final_v1.pdf

-----Original Message-----
From: Keith Sampson
Sent: Wednesday, July 15, 2015 3:05 PM
To: Don Smiley
Subject: FW: Analytical Report: 1507687,Expanded Effluent Testing Data

The last of the Expanded Final Effluent results.

-----Original Message-----
From: alerts@reiconnectonline.net [mailto:alerts@reiconnectonline.net]
Sent: Wednesday, July 15, 2015 2:44 PM
To: Keith Sampson
Cc: bjohnson@reiclabs.com
Subject: Analytical Report: 1507687,Expanded Effluent Testing Data

1507687-Attached are your results in electronic format.

Please feel free to contact me by email at bjohnson@reiclabs.com with any questions.

Sincerely,

Beth Johnson
Project Manager
bjohnson@reiclabs.com
PO Box 286
Beaver, WV 25813
REI Consultants, Inc.
TEL: (304) 255-2500
FAX: (304) 255-2572
www.reiclabs.com

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: (304) 255-2500
Website: www.reiclabs.com

Improving the environment, one client at a time...

3029-C Peters Creek Road
Roanoke, VA 24019
TEL: 540.777.1276

101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.248.0183

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Wednesday, July 15, 2015

Mr. Keith Sampson
UTILITIES, INC-Massanutten PSA
P.O. Box 51
Elkton, VA 22827

TEL: (540) 289-9922
FAX: (540) 289-3239

RE: Expanded Effluent Testing Data

Work Order #: 1507687

Dear Mr. Keith Sampson:

REI Consultants, Inc. received 2 sample(s) on 7/7/2015 for the analyses presented in the following report.

Sincerely,

Beth Johnson

Beth Johnson

Project Manager

REI Consultants, Inc. - Case Narrative

WO#: 1507687

Date Reported: 7/15/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

Please note if the sample collection time is not provided on the Chain of Custody, the default recording will be 0:00:00. This may cause some tests to be apparently analyzed out of hold.

All tests performed by REIC Service Centers are designated by an annotation on the test code. All other tests were performed by REIC's Main Laboratory in Beaver, WV.

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DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration denoted by "J" qualifier.
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
X: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, VADCLS (VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460148, PADEP 68-00839
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094, WV 389
Morgantown, WV: WVDHHR 003112M, WVDEP 387

REI Consultants, Inc. - Analytical Report

WO#: 1507687

Date Reported: 7/15/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	7/7/2015 9:05:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	7/7/2015
Lab ID:	1507687-01A	**Matrix:**	Waste Water
Client Sample ID:	DAILY FINAL EFFLUENT	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Prep Date	Date Analyzed	NELAC
METALS BY ICP-MS				**Method: EPA 200.8 Rev. 5.4 (1994)**				**Analyst: DL**	
Antimony	ND	NA	0.0010	NA		mg/L	07/08/15 12:15PM	07/09/15 7:35PM	PA/VA
Arsenic	ND	NA	0.0050	NA		mg/L	07/08/15 12:15PM	07/09/15 7:35PM	PA/VA
Beryllium	ND	NA	0.0010	NA		mg/L	07/08/15 12:15PM	07/09/15 7:35PM	PA/VA
Cadmium	ND	NA	0.0010	NA		mg/L	07/08/15 12:15PM	07/09/15 7:35PM	PA/VA
Chromium	ND	NA	0.0050	NA		mg/L	07/08/15 12:15PM	07/09/15 7:35PM	PA/VA
Copper	0.0060	NA	0.0050	NA		mg/L	07/08/15 12:15PM	07/09/15 7:35PM	PA/VA
Lead	ND	NA	0.0010	NA		mg/L	07/08/15 12:15PM	07/09/15 7:35PM	PA/VA
Nickel	0.0028	NA	0.0100	NA	J	mg/L	07/08/15 12:15PM	07/09/15 7:35PM	PA/VA
Selenium	0.0017	NA	0.0050	NA	J	mg/L	07/08/15 12:15PM	07/09/15 7:35PM	PA/VA
Silver	ND	NA	0.0050	NA		mg/L	07/08/15 12:15PM	07/09/15 7:35PM	PA/VA
Thallium	ND	NA	0.0010	NA		mg/L	07/08/15 12:15PM	07/09/15 7:35PM	PA/VA
Zinc	0.0253	NA	0.0100	NA		mg/L	07/08/15 12:15PM	07/09/15 7:35PM	PA/VA
HARDNESS				**Method: SM2340 B-1997**				**Analyst: CGW**	
Hardness, Total (As CaCO3)	197	NA	1.00	NA		mg/L	07/09/15 3:45PM	07/13/15 4:10PM	VA
MERCURY, Total E245.1				**Method: EPA 245.1, Rev. 3.0 (1994)**				**Analyst: CR**	
Mercury	ND	NA	0.0010	NA		mg/L	07/08/15 1:25PM	07/09/15 11:06AM	PA/VA
SEMIVOLATILE ORGANIC COMPOUNDS				**Method: EPA 625 (1982)**				**Analyst: JD**	
Acenaphthene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Acenaphthylene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Anthracene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Benzidine	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Benzo(a)anthracene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Benzo(a)pyrene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Benzo(b)fluoranthene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Benzo(g,h,i)perylene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Benzo(k)fluoranthene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Bis(2-chloroethoxy)methane	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Bis(2-chloroethyl)ether	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Bis(2-chloroisopropyl)ether	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/14/15 12:52PM	PA/VA
Bis(2-ethylhexyl)phthalate	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
4-Bromophenyl phenyl ether	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Butyl benzyl phthalate	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
4-Chloro-3-methylphenol	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
2-Chloronaphthalene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	
2-Chlorophenol	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 1507687

Date Reported: 7/15/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	7/7/2015 9:05:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	7/7/2015
Lab ID:	1507687-01A	**Matrix:**	Waste Water
Client Sample ID:	DAILY FINAL EFFLUENT	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Prep Date	Date Analyzed	NELAC
4-Chlorophenyl phenyl ether	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Chrysene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
o-Cresol	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
m,p-Cresol	ND	NA	0.0201	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Dibenzo(a,h)anthracene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Di-n-butyl phthalate	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
3,3'-Dichlorobenzidine	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
2,4-Dichlorophenol	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Diethyl phthalate	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Dimethyl phthalate	0.0036	NA	0.0100	NA	J	mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
2,4-Dimethylphenol	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
4,6-Dinitro-2-methylphenol	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
2,4-Dinitrophenol	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/14/15 12:52PM	PA/VA
2,4-Dinitrotoluene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
2,6-Dinitrotoluene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Di-n-octyl phthalate	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
1,2-Diphenylhydrazine	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Fluoranthene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Fluorene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Hexachlorobenzene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Hexachlorobutadiene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Hexachlorocyclopentadiene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Hexachloroethane	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Indeno(1,2,3-cd)pyrene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Isophorone	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Naphthalene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Nitrobenzene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
2-Nitrophenol	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
4-Nitrophenol	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
N-Nitrosodimethylamine	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
N-Nitrosodiphenylamine	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
N-Nitrosodi-n-propylamine	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Pentachlorophenol	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Phenanthrene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Phenol	0.0040	NA	0.0100	NA	J	mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Pyrene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
1,2,4-Trichlorobenzene	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
2,4,6-Trichlorophenol	ND	NA	0.0100	NA		mg/L	07/09/15 9:38AM	07/10/15 8:30PM	PA/VA
Surr: 2-Fluorophenol	42.1	NA	25.9-110	NA		%REC	07/09/15 9:38AM	07/10/15 8:30PM	
Surr: Phenol-d5	30.1	NA	8.2-110	NA		%REC	07/09/15 9:38AM	07/10/15 8:30PM	
Surr: 2,4,6-Tribromophenol	80.4	NA	61.7-110	NA		%REC	07/09/15 9:38AM	07/10/15 8:30PM	

REI Consultants, Inc. - Analytical Report

WO#: 1507687

Date Reported: 7/15/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	7/7/2015 9:05:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	7/7/2015
Lab ID:	1507687-01A	**Matrix:**	Waste Water
Client Sample ID:	DAILY FINAL EFFLUENT	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL Qual	Units	Prep Date	Date Analyzed	NELAC
Surr: Nitrobenzene-d5	87.9	NA	62.2-110	NA	%REC	07/09/15 9:38AM	07/10/15 8:30PM	
Surr: 2-Fluorobiphenyl	80.4	NA	54.6-110	NA	%REC	07/09/15 9:38AM	07/10/15 8:30PM	
Surr: 4-Terphenyl-d14	77.9	NA	10.7-110	NA	%REC	07/09/15 9:38AM	07/10/15 8:30PM	
ACROLEIN BY E624				**Method: EPA 624**			**Analyst: TC**	
Acrolein	ND	NA	10	NA	µg/L		07/10/15 3:05PM	PA/VA
VOLATILE ORGANIC COMPOUNDS				**Method: EPA 624**			**Analyst: TC**	
1,1,1-Trichloroethane	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
1,1,2-Trichloroethane	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
1,1-Dichloroethane	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
1,1-Dichloroethene	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
1,2-Dichlorobenzene	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
1,2-Dichloroethane	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
1,2-Dichloropropane	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
1,3-Dichlorobenzene	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
1,4-Dichlorobenzene	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
2-Chloroethyl vinyl ether	ND	NA	5.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Acrylonitrile	ND	NA	10.0	NA	µg/L		07/10/15 3:05PM	PA/VA
Benzene	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Bromodichloromethane	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Bromoform	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Bromomethane	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Carbon tetrachloride	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Chlorobenzene	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Chloroethane	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Chloroform	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Chloromethane	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
cis-1,3-Dichloropropene	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Dibromochloromethane	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Ethylbenzene	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Methylene chloride	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Tetrachloroethene	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Toluene	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
trans-1,2-Dichloroethene	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
trans-1,3-Dichloropropene	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Trichloroethene	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Vinyl chloride	ND	NA	1.00	NA	µg/L		07/10/15 3:05PM	PA/VA
Surr: 1,2-Dichloroethane-d4	104	NA	68.7-129	NA	%REC		07/10/15 3:05PM	
Surr: 4-Bromofluorobenzene	105	NA	71.8-127	NA	%REC		07/10/15 3:05PM	

REI Consultants, Inc. - Analytical Report

WO#: 1507687

Date Reported: 7/15/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	7/7/2015 9:05:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	7/7/2015
Lab ID:	1507687-01A	**Matrix:**	Waste Water
Client Sample ID:	DAILY FINAL EFFLUENT	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Prep Date	Date Analyzed	NELAC
Surr: Toluene-d8	107	NA	71.4-129	NA		%REC		07/10/15 3:05PM	
PHENOLICS				**Method: EPA 420.1, Rev. 1978)**				**Analyst: SF**	
Phenolics	0.009	NA	0.010	NA	J	mg/L		07/08/15 7:39AM	PA/VA
Cyanide				**Method: EPA 335.4, Rev. 1 (1993)**				**Analyst: JH**	
Cyanide, Total	ND	NA	0.020	NA		mg/L	07/08/15 9:00AM	07/10/15 3:43PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 1507687

Date Reported: 7/15/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	7/7/2015 12:00:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	7/7/2015
Lab ID:	1507687-02A	**Matrix:**	Trip Blank
Client Sample ID:	TRIP BLANK	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL Qual	Units	Prep Date	Date Analyzed	NELAC
ACROLEIN BY E624				**Method: EPA 624**			**Analyst: TC**	
Acrolein	ND	NA	10	NA	µg/L		07/10/15 3:38PM	PA/VA
VOLATILE ORGANIC COMPOUNDS				**Method: EPA 624**			**Analyst: TC**	
1,1,1-Trichloroethane	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
1,1,2-Trichloroethane	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
1,1-Dichloroethane	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
1,1-Dichloroethene	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
1,2-Dichlorobenzene	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
1,2-Dichloroethane	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
1,2-Dichloropropane	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
1,3-Dichlorobenzene	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
1,4-Dichlorobenzene	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
2-Chloroethyl vinyl ether	ND	NA	5.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Acrylonitrile	ND	NA	10.0	NA	µg/L		07/10/15 3:38PM	PA/VA
Benzene	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Bromodichloromethane	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Bromoform	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Bromomethane	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Carbon tetrachloride	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Chlorobenzene	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Chloroethane	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Chloroform	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Chloromethane	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
cis-1,3-Dichloropropene	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Dibromochloromethane	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Ethylbenzene	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Methylene chloride	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Tetrachloroethene	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Toluene	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
trans-1,2-Dichloroethene	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
trans-1,3-Dichloropropene	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Trichloroethene	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Vinyl chloride	ND	NA	1.00	NA	µg/L		07/10/15 3:38PM	PA/VA
Surr: 1,2-Dichloroethane-d4	103	NA	68.7-129	NA	%REC		07/10/15 3:38PM	
Surr: 4-Bromofluorobenzene	107	NA	71.8-127	NA	%REC		07/10/15 3:38PM	
Surr: Toluene-d8	108	NA	71.4-129	NA	%REC		07/10/15 3:38PM	

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1507687

Date Reported: 7/15/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data **Test Code:** **200.8**

Sample ID:	**LCS-62098**	Samp Type:	**LCS**	Test Code:	**200.8**	Units:	**mg/L**	Prep Date:	**7/8/2015**	RunNo:	**358919**		
Client ID:	**LCSW**	Batch ID:	**62098**	TestNo:	**EPA 200.8 Rev. 5.4 (1994)**	**EPA 200.2**		Analysis Date:	**7/9/2015**	SeqNo:	**5627422**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Antimony	0.0215	0.0010	0.0200	0	108	85	115				
Arsenic	0.100	0.0050	0.1000	0	100	85	115				
Beryllium	0.0210	0.0010	0.0200	0	105	85	115				
Cadmium	0.0202	0.0010	0.0200	0	101	85	115				
Chromium	0.108	0.0050	0.1000	0	108	85	115				
Copper	0.107	0.0050	0.1000	0	107	85	115				
Lead	0.0204	0.0010	0.0200	0	102	85	115				
Nickel	0.106	0.0100	0.1000	0	106	85	115				
Selenium	0.0964	0.0050	0.1000	0	96.4	85	115				
Silver	0.0988	0.0050	0.1000	0	98.8	85	115				
Thallium	0.0199	0.0010	0.0200	0	99.4	85	115				
Zinc	0.103	0.0100	0.1000	0	103	85	115				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1507687

Date Reported: 7/15/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data **Test Code:** 624_L

Sample ID:	8260 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	359024
Client ID:	LCSW	Batch ID:	R359024	TestNo:	EPA 624			Analysis Date:	7/10/2015	SeqNo:	5629383

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	12.4	1.00	10.00	0	124	70	130				
1,1,2,2-Tetrachloroethane	13.0	1.00	10.00	0	130	70	130				
1,1,2-Trichloroethane	10.5	1.00	10.00	0	105	70	130				
1,1-Dichloroethane	11.6	1.00	10.00	0	116	70	130				
1,1-Dichloroethene	11.0	1.00	10.00	0	110	70	130				
1,2-Dichlorobenzene	11.6	1.00	10.00	0	116	70	130				
1,2-Dichloroethane	11.7	1.00	10.00	0	117	70	130				
1,2-Dichloropropane	14.3	1.00	10.00	0	143	70	130				S
1,3-Dichlorobenzene	11.8	1.00	10.00	0	118	70	130				
1,4-Dichlorobenzene	11.8	1.00	10.00	0	118	70	130				
2-Chloroethyl vinyl ether	52.3	5.00	50.00	0	105	70	130				
Acrylonitrile	107	10.0	100.0	0	107	70	130				
Benzene	11.2	1.00	10.00	0	112	77	150				
Bromodichloromethane	14.8	1.00	10.00	0	148	70	130				S
Bromoform	12.5	1.00	10.00	0	125	70	130				
Bromomethane	28.0	1.00	10.00	0	280	70	130				ES
Carbon tetrachloride	11.5	1.00	10.00	0	115	70	130				
Chlorobenzene	11.2	1.00	10.00	0	112	70	130				
Chloroethane	9.90	1.00	10.00	0	99.0	70	130				
Chloroform	11.3	1.00	10.00	0	113	70	130				
Chloromethane	4.59	1.00	10.00	0	45.9	70	130				S
cis-1,3-Dichloropropene	14.2	1.00	10.00	0	142	70	130				S
Dibromochloromethane	12.3	1.00	10.00	0	123	70	130				
Ethylbenzene	11.7	1.00	10.00	0	117	70	130				
Methylene chloride	10.7	1.00	10.00	0	107	70	130				
Tetrachloroethene	11.3	1.00	10.00	0	113	70	130				
Toluene	12.1	1.00	10.00	0	121	70	130				
trans-1,2-Dichloroethene	11.7	1.00	10.00	0	117	70	130				
trans-1,3-Dichloropropene	12.1	1.00	10.00	0	121	70	130				
Trichloroethene	11.3	1.00	10.00	0	113	70	130				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1507687

Date Reported: 7/15/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data **Test Code:** 624_L

Sample ID:	8260 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	359024
Client ID:	LCSW	Batch ID:	R359024	TestNo:	EPA 624			Analysis Date:	7/10/2015	SeqNo:	5629383

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Vinyl chloride	10.5	1.00	10.00	0	105	70	130				
Surr: 1,2-Dichloroethane-d4	10.5		10.00		105	67.6	120				
Surr: 4-Bromofluorobenzene	10.3		10.00		103	75.9	127				
Surr: Toluene-d8	10.8		10.00		108	76.4	124				

Sample ID:	8260 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	359024
Client ID:	LCSW	Batch ID:	R359024	TestNo:	EPA 624			Analysis Date:	7/10/2015	SeqNo:	5629397

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	22.5	1.00	20.00	0	112	77	150				
Chloroform	21.3	1.00	20.00	0	106	70	130				
Toluene	25.0	1.00	20.00	0	125	70	130				
Surr: 1,2-Dichloroethane-d4	10.9		10.00		109	67.6	120				
Surr: 4-Bromofluorobenzene	10.2		10.00		102	75.9	127				
Surr: Dibromofluoromethane	10.1		10.00		101	68.4	123				
Surr: Toluene-d8	11.1		10.00		111	76.4	124				

Sample ID:	8260 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	359024
Client ID:	LCSW	Batch ID:	R359024	TestNo:	EPA 624			Analysis Date:	7/11/2015	SeqNo:	5629405

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	11.8	1.00	10.00	0	118	77	150				
Chloroform	12.0	1.00	10.00	0	120	70	130				
Toluene	12.6	1.00	10.00	0	126	70	130				
Surr: 1,2-Dichloroethane-d4	11.3		10.00		113	67.6	120				
Surr: 4-Bromofluorobenzene	9.91		10.00		99.1	75.9	127				
Surr: Dibromofluoromethane	11.0		10.00		110	68.4	123				
Surr: Toluene-d8	11.5		10.00		115	76.4	124				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1507687

Date Reported: 7/15/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

Test Code: 625_SUP_L

Sample ID:	LCS-62108	Samp Type:	LCS	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	7/9/2015	RunNo:	359085
Client ID:	LCSW	Batch ID:	62108	TestNo:	EPA 625 (1982)	SW3510		Analysis Date:	7/10/2015	SeqNo:	5630533

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Acenaphthene	0.0318	0.0100	0.0500	0	63.5	50	143				
Acenaphthylene	0.0341	0.0100	0.0500	0	68.2	36	145				
Anthracene	0.0350	0.0100	0.0500	0	70.0	31	132				
Benzo(a)anthracene	0.0358	0.0100	0.0500	0	71.7	33	141				
Benzo(a)pyrene	0.0341	0.0100	0.0500	0	68.2	13	166				
Benzo(b)fluoranthene	0.0362	0.0100	0.0500	0	72.4	22	157				
Benzo(g,h,i)perylene	0.0360	0.0100	0.0500	0	72.0	0	214				
Benzo(k)fluoranthene	0.0360	0.0100	0.0500	0	72.0	10	158				
Bis(2-chloroethoxy)methane	0.0323	0.0100	0.0500	0	64.6	28	176				
Bis(2-chloroethyl)ether	0.0286	0.0100	0.0500	0	57.2	12	154				
Bis(2-ethylhexyl)phthalate	0.0345	0.0100	0.0500	0	68.9	7	157				
4-Bromophenyl phenyl ether	0.0367	0.0100	0.0500	0	73.4	51	126				
Butyl benzyl phthalate	0.0349	0.0100	0.0500	0	69.8	0	148				
4-Chloro-3-methylphenol	0.0340	0.0100	0.0500	0	68.0	18	151				
2-Chloronaphthalene	0.0323	0.0100	0.0500	0	64.6	59	119				
2-Chlorophenol	0.0307	0.0100	0.0500	0	61.4	20	137				
4-Chlorophenyl phenyl ether	0.0354	0.0100	0.0500	0	70.8	27	157				
Chrysene	0.0362	0.0100	0.0500	0	72.3	18	164				
Dibenzo(a,h)anthracene	0.0364	0.0100	0.0500	0	72.9	0	239				
Di-n-butyl phthalate	0.0364	0.0100	0.0500	0	72.8	0	121				
3,3'-Dichlorobenzidine	0.0359	0.0100	0.0500	0	71.8	0	227				
2,4-Dichlorophenol	0.0368	0.0100	0.0500	0	73.5	36	138				
Diethyl phthalate	0.0342	0.0100	0.0500	0	68.3	0	103				
2,4-Dimethylphenol	0.0357	0.0100	0.0500	0	71.5	31	129				
4,6-Dinitro-2-methylphenol	0.0397	0.0100	0.0500	0	79.4	0	191				
2,4-Dinitrophenol	0.0366	0.0100	0.0500	0	73.1	0	219				
2,4-Dinitrotoluene	0.0368	0.0100	0.0500	0	73.6	33	132				
2,6-Dinitrotoluene	0.0362	0.0100	0.0500	0	72.5	51	146				
Di-n-octyl phthalate	0.0349	0.0100	0.0500	0	69.7	1	147				
Fluoranthene	0.0366	0.0100	0.0500	0	73.3	29	137				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1507687

Date Reported: 7/15/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data **Test Code:** 625_SUP_L

Sample ID:	LCS-62108	Samp Type:	LCS	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	7/9/2015	RunNo:	359085
Client ID:	LCSW	Batch ID:	62108	TestNo:	EPA 625 (1982)	SW3510		Analysis Date:	7/10/2015	SeqNo:	5630533

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Fluorene	0.0341	0.0100	0.0500	0	68.1	59	122				
Hexachlorobenzene	0.0356	0.0100	0.0500	0	71.2	0	152				
Hexachlorobutadiene	0.0290	0.0100	0.0500	0	58.0	23	115				
Hexachloroethane	0.0268	0.0100	0.0500	0	53.5	38	105				
Indeno(1,2,3-cd)pyrene	0.0350	0.0100	0.0500	0	70.0	0	162				
Isophorone	0.0325	0.0100	0.0500	0	64.9	21	209				
Naphthalene	0.0330	0.0100	0.0500	0	66.0	25	134				
Nitrobenzene	0.0321	0.0100	0.0500	0	64.3	34	172				
2-Nitrophenol	0.0371	0.0100	0.0500	0	74.3	23	186				
4-Nitrophenol	0.0163	0.0100	0.0500	0	32.5	0	137				
N-Nitrosodi-n-propylamine	0.0297	0.0100	0.0500	0	59.4	0	209				
Pentachlorophenol	0.0386	0.0100	0.0500	0	77.3	5	189				
Phenanthrene	0.0345	0.0100	0.0500	0	69.1	5	120				
Phenol	0.0162	0.0100	0.0500	0	32.5	4	87				
Pyrene	0.0342	0.0100	0.0500	0	68.4	52	116				
1,2,4-Trichlorobenzene	0.0325	0.0100	0.0500	0	65.0	43	142				
Surr: 2-Fluorophenol	0.0195		0.0500		39.0	32.9	110				
Surr: Phenol-d5	0.0144		0.0500		28.9	25.8	110				
Surr: 2,4,6-Tribromophenol	0.0403		0.0500		80.7	63.8	110				
Surr: Nitrobenzene-d5	0.0356		0.0500		71.2	61.8	110				
Surr: 2-Fluorobiphenyl	0.0332		0.0500		66.3	58.6	110				
Surr: 4-Terphenyl-d14	0.0432		0.0500		86.3	55.1	110				

Sample ID:	LCS-62108	Samp Type:	LCS	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	7/9/2015	RunNo:	359184
Client ID:	LCSW	Batch ID:	62108	TestNo:	EPA 625 (1982)	SW3510		Analysis Date:	7/14/2015	SeqNo:	5632748

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Bis(2-chloroisopropyl)ether	0.0322	0.0100	0.0500	0	64.4	33	164				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1507687

Date Reported: 7/15/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

Test Code: CN_335.4

Sample ID:	**LCS-62073**	Samp Type:	**LCS**	Test Code:	**CN_335.4**	Units:	**mg/L**	Prep Date:		**7/8/2015**	RunNo:	**358882**	
Client ID:	**LCSW**	Batch ID:	**62073**	TestNo:	**EPA 335.4, Rev. 1 (1993)**			Analysis Date:		**7/10/2015**	SeqNo:	**5626709**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Cyanide, Total	0.098	0.020	0.100	0	97.5	89.9	110.1				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1507687

Date Reported: 7/15/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

Test Code: HG_T_AUTO

Sample ID:	**LCS-62099**	Samp Type:	**LCS**	Test Code:	**HG_T_AUTO**	Units:	**mg/L**	Prep Date:	**7/8/2015**	RunNo:	**358804**
Client ID:	**LCSW**	Batch ID:	**62099**	TestNo:	**EPA 245.1, Rev. 3.0 (1994)**		**EPA 245.1**	Analysis Date:	**7/9/2015**	SeqNo:	**5625404**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Mercury	0.0103	0.0010	0.0100	0	103	85	115				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1507687

Date Reported: 7/15/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

Test Code: PHENOLICS_L

Sample ID:	**LCS-R358725**	Samp Type:	**LCS**	Test Code:	**PHENOLICS_L**	Units:	**mg/L**	Prep Date:			RunNo:	**358725**	
Client ID:	**LCSW**	Batch ID:	**R358725**	TestNo:	**EPA 420.1, Rev. 1978)**			Analysis Date:		**7/8/2015**	SeqNo:	**5623580**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Phenolics	0.097	0.010	0.100	0	97.0	89.9	110.1				

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: (304)255-2500
Website: www.reiclabs.com

Improving the environment, one client at a time...

Sample Receipt Checklist

Client Name:	UTI002			Work Order Number:	1507687
RCPNo:	1	Date and Time Received:	7/7/2015 8:24:56 PM	Received by:	Steven Cummins
Completed By:	Brandon Cole		Reviewed By:	Beth Johnson	
Completed Date:	7/7/2015 8:25:59 PM		Reviewed Date:	7/8/2015 10:43 AM	

Carrier Name: REIC

1.	Chain of custody present?	Yes [x]	No [ ]	
2.	Chain of custody signed when relinquished and received?	Yes [x]	No [ ]	
3.	Are matrices correctly identified on Chain of custody?	Yes [x]	No [ ]	
4.	Is it clear what analyses were requested?	Yes [x]	No [ ]	
5.	Custody seals intact?	Yes [ ]	No [ ]	Not Present [x]
6.	Samples in proper container type and preservative?	Yes [x]	No [ ]	
7.	Were correct preservatives noted on COC?	Yes [x]	No [ ]	NA [ ]
8.	Sample containers intact?	Yes [x]	No [ ]	
9.	Sufficient sample volume for indicated test?	Yes [x]	No [ ]	
10.	Were container labels complete?	Yes [x]	No [ ]	
11.	All samples received within holding time?	Yes [x]	No [ ]	
12.	Was an attempt made to cool the samples?	Yes [x]	No [ ]	NA [ ]
13.	Sample Temp. taken and recorded upon receipt?	Yes [x]	No [ ]	To 2 °C
14.	Water - Were bubbles absent in VOC vials?	Yes [x]	No [ ]	No Vials [ ]
15.	Are Samples considered acceptable?	Yes [x]	No [ ]	
16.	COC filled out properly?	Yes [x]	No [ ]	

Client Notification/Response

Client Name: UTI002 Work Order Number: 1507687

Comment:

Client Contacted: Yes [ ] No [ ] NA [x] Person Contacted:

Contact Mode: Phone [ ] Fax: [ ] Email: [ ] In Person: [ ]

Date Contacted: Contacted By:

Regarding:

Client Instructions:

Corrective Action:

DBPix Evaluation

CHAIN OF CUSTODY RECORD

v10-0114 REIC use ONLY — CLIENT ID _____ DATE _____ SHEET _____

REIC
Research Environmental & Industrial Consultants, Inc.
MAIN LABORATORY & CORPORATE HEADQUARTERS:
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800-999-0105 • 304-255-2500 • www.reiclabs.com

MID-OHIO VALLEY Service Center
101 17th Street
Ashland, KY 41101
606-393-5027

SHENANDOAH Service Center
1557 Commerce Rd., Ste 201
Verona, VA 24482
540-248-0183

ROANOKE Service Center
3029-C Peters Creek Rd
Roanoke, VA 24019
540-777-1276

MORGANTOWN Service Center
16 Commerce Drive
Westover, WV 26501
304-241-5861

Client: UTILITIES, INC.-Massanutten PSA — PO # 190435
Contact Person: Mr. Keith Sampson — Phone: 289-9922
Address: 1550 Resort Drive — City: McGaheysville — State: VA — Zip: 22840
Billing Address (if different): 2335 Sanders Road
City: Northbrook — State: IL — Zip: 60062
Site ID & State: VA — Project ID: Expanded Effluent Testing — Sampler: K Sampson

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME: (•) NORMAL — RUSH TURNAROUND*: ( ) 5 DAY ( ) 3 DAY ( ) 2 DAY ( ) 1 DAY

*Rush work needs prior laboratory approval and will incur additional charges

ANALYSIS & METHOD REQUESTED: PP 624 plus Acrolein; PP Cyanide; PP Phenolics; PP Metals & Hardness; PP 625

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	0	5	3	2	0			
Daily Pool Effl.	2-40 ml gc	7-7-15 09:05	W Water	Grab	X							
Daily Pool Effluent	4-40 ml g	7-7-15 09:05	W Water	Grab	X							
Daily Pool Effluent	1-250 p	7-7-15 09:05	W Water	Grab		X						
Daily Pool Effluent	1-250 g	7-7-15 09:05	W Water	Grab			X					
Daily Pool Effluent	1-500 p	7-7-15 09:05	W Water	Grab				X				
Daily Pool Effluent	6-ltr g	7-7-15 09:05	W Water	Grab					X			
Trip Blank (BL)	X1		Choose	Choose								
			Choose	Choose								
			Choose	Choose								

ENTER PRESERVATIVE CODE(S):
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide/ Sodium Arsenite
6 Sodium Hydroxide
7 Ascorbic Acid
8 Sodium Bisulfate/Methanol
9 Ammonium Chloride
10 _____*
11 _____*
* (Use blanks for preservatives not listed.)

COMMENTS:
Priority Pollutants
Quote 2136

All analytical requests are subject to REIC's Standard Terms and Conditions.

Temperature at arrival: 0°C — ICED? Y ✓ N___

Containers provided by: [X] REIC [ ] Client

1 Relinquished by (signature)	7-7-15 Date/Time 0915	2 Relinquished by (signature) RCVD.	7/7/15 Date/Time 15:52	3 Relinquished by (signature) Rec by: Jack Fry	7-7-15 Date/Time 1730
Received by (signature) Lisa Dudley	7-7-15 Date/Time 1334	Received by (signature)	7.7.15 Date/Time 16:11	Received by (signature)	7/7/15 Date/Time 19:45

www.ammara.com

Jeffries, Dawn (DEQ)

From: Don Smiley [DESmiley@uiwater.com]
Sent: Tuesday, July 07, 2015 7:43 AM
To: Jeffries, Dawn (DEQ)
Subject: FW: Analytical Report: 1506T26,Expanded Effluent Testing Data
Attachments: Rpt_1506T26_Final_v1.pdf; COC_1506T26_v1.pdf

-----Original Message-----
From: Keith Sampson
Sent: Tuesday, July 07, 2015 6:43 AM
To: Don Smiley
Subject: FW: Analytical Report: 1506T26,Expanded Effluent Testing Data

Expanded Effluent testing #2.

-----Original Message-----
From: alerts@reiconnectonline.net [mailto:alerts@reiconnectonline.net]
Sent: Monday, July 06, 2015 4:55 PM
To: Keith Sampson
Cc: bjohnson@reiclabs.com
Subject: Analytical Report: 1506T26,Expanded Effluent Testing Data

1506T26-Attached are your results in electronic format.

Please feel free to contact me by email at bjohnson@reiclabs.com with any questions.

Sincerely,

Beth Johnson
Project Manager
bjohnson@reiclabs.com
PO Box 286
Beaver, WV 25813
REI Consultants, Inc.
TEL: (304) 255-2500
FAX: (304) 255-2572
www.reiclabs.com

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: (304) 255-2500
Website: www.reiclabs.com

Improving the environment, one client at a time...

3029-C Peters Creek Road
Roanoke, VA 24019
TEL: 540.777.1276

101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.248.0183

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Monday, July 06, 2015

Mr. Keith Sampson
UTILITIES, INC-Massanutten PSA
P.O. Box 51
Elkton, VA 22827

TEL: (540) 289-9922
FAX: (540) 289-3239

RE: Expanded Effluent Testing Data

Work Order #: 1506T26

Dear Mr. Keith Sampson:

REI Consultants, Inc. received 2 sample(s) on 6/23/2015 for the analyses presented in the following report.

Sincerely,

Beth Johnson

Beth Johnson

Project Manager

REI Consultants, Inc. - Case Narrative

WO#: 1506T26

Date Reported: 7/6/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

Please note if the sample collection time is not provided on the Chain of Custody, the default recording will be 0:00:00. This may cause some tests to be apparently analyzed out of hold.

All tests performed by REIC Service Centers are designated by an annotation on the test code. All other tests were performed by REIC's Main Laboratory in Beaver, WV.

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DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration denoted by "J" qualifier.
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
X: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, VADCLS (VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460148, PADEP 68-00839
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094, WV 389
Morgantown, WV: WVDHHR 003112M, WVDEP 387

REI Consultants, Inc. - Analytical Report

WO#: 1506T26

Date Reported: 7/6/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	6/23/2015 9:00:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	6/23/2015
Lab ID:	1506T26-01A	**Matrix:**	Waste Water
Client Sample ID:	DAILY FINAL EFF	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Prep Date	Date Analyzed	NELAC
METALS BY ICP-MS				**Method: EPA 200.8 Rev. 5.4 (1994)**				**Analyst: LF**	
Antimony	0.0003	NA	0.0010	NA	J	mg/L	06/25/15 12:30PM	06/26/15 11:18AM	PA/VA
Arsenic	ND	NA	0.0050	NA		mg/L	06/25/15 12:30PM	06/26/15 11:18AM	PA/VA
Beryllium	ND	NA	0.0010	NA		mg/L	06/25/15 12:30PM	06/26/15 11:18AM	PA/VA
Cadmium	ND	NA	0.0010	NA		mg/L	06/25/15 12:30PM	06/26/15 11:18AM	PA/VA
Chromium	ND	NA	0.0050	NA		mg/L	06/25/15 12:30PM	06/26/15 11:18AM	PA/VA
Copper	0.0043	NA	0.0050	NA	J	mg/L	06/25/15 12:30PM	06/26/15 11:18AM	PA/VA
Lead	ND	NA	0.0010	NA		mg/L	06/25/15 12:30PM	06/26/15 11:18AM	PA/VA
Nickel	0.0025	NA	0.0100	NA	J	mg/L	06/25/15 12:30PM	06/26/15 11:18AM	PA/VA
Selenium	ND	NA	0.0050	NA		mg/L	06/25/15 12:30PM	06/26/15 11:18AM	PA/VA
Silver	ND	NA	0.0050	NA		mg/L	06/25/15 12:30PM	06/26/15 11:18AM	PA/VA
Thallium	ND	NA	0.0010	NA		mg/L	06/25/15 12:30PM	06/26/15 11:18AM	PA/VA
Zinc	0.0358	NA	0.0100	NA		mg/L	06/25/15 12:30PM	06/26/15 11:18AM	PA/VA
HARDNESS				**Method: SM2340 B-1997**				**Analyst: CGW**	
Hardness, Total (As CaCO3)	210	NA	1.00	NA		mg/L	06/29/15 8:00AM	07/01/15 5:18PM	VA
MERCURY, Total E245.1				**Method: EPA 245.1, Rev. 3.0 (1994)**				**Analyst: CR**	
Mercury	ND	NA	0.0010	NA		mg/L	06/26/15 9:15AM	06/29/15 10:18AM	PA/VA
SEMIVOLATILE ORGANIC COMPOUNDS				**Method: EPA 625 (1982)**				**Analyst: JD**	
Acenaphthene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Acenaphthylene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Anthracene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Benzidine	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Benzo(a)anthracene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Benzo(a)pyrene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Benzo(b)fluoranthene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Benzo(g,h,i)perylene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Benzo(k)fluoranthene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Bis(2-chloroethoxy)methane	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Bis(2-chloroethyl)ether	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Bis(2-chloroisopropyl)ether	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Bis(2-ethylhexyl)phthalate	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
4-Bromophenyl phenyl ether	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Butyl benzyl phthalate	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
4-Chloro-3-methylphenol	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
2-Chloronaphthalene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	
2-Chlorophenol	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 1506T26

Date Reported: 7/6/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	6/23/2015 9:00:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	6/23/2015
Lab ID:	1506T26-01A	**Matrix:**	Waste Water
Client Sample ID:	DAILY FINAL EFF	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Prep Date	Date Analyzed	NELAC
4-Chlorophenyl phenyl ether	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Chrysene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
o-Cresol	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
m,p-Cresol	ND	NA	0.0201	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Dibenzo(a,h)anthracene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Di-n-butyl phthalate	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
3,3'-Dichlorobenzidine	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
2,4-Dichlorophenol	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Diethyl phthalate	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Dimethyl phthalate	0.0053	NA	0.0100	NA	J	mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
2,4-Dimethylphenol	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
4,6-Dinitro-2-methylphenol	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
2,4-Dinitrophenol	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
2,4-Dinitrotoluene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
2,6-Dinitrotoluene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Di-n-octyl phthalate	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
1,2-Diphenylhydrazine	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Fluoranthene	0.0035	NA	0.0100	NA	J	mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Fluorene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Hexachlorobenzene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Hexachlorobutadiene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Hexachlorocyclopentadiene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Hexachloroethane	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Indeno(1,2,3-cd)pyrene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Isophorone	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Naphthalene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Nitrobenzene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
2-Nitrophenol	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
4-Nitrophenol	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
N-Nitrosodimethylamine	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
N-Nitrosodiphenylamine	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
N-Nitrosodi-n-propylamine	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Pentachlorophenol	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Phenanthrene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Phenol	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Pyrene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
1,2,4-Trichlorobenzene	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
2,4,6-Trichlorophenol	ND	NA	0.0100	NA		mg/L	06/24/15 9:25AM	06/24/15 11:16PM	PA/VA
Surr: 2-Fluorophenol	48.3	NA	25.9-110	NA		%REC	06/24/15 9:25AM	06/24/15 11:16PM	
Surr: Phenol-d5	36.0	NA	8.2-110	NA		%REC	06/24/15 9:25AM	06/24/15 11:16PM	
Surr: 2,4,6-Tribromophenol	77.9	NA	61.7-110	NA		%REC	06/24/15 9:25AM	06/24/15 11:16PM	

REI Consultants, Inc. - Analytical Report

WO#: 1506T26

Date Reported: 7/6/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	6/23/2015 9:00:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	6/23/2015
Lab ID:	1506T26-01A	**Matrix:**	Waste Water
Client Sample ID:	DAILY FINAL EFF	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Prep Date	Date Analyzed	NELAC
Surr: Nitrobenzene-d5	94.2	NA	62.2-110	NA		%REC	06/24/15 9:25AM	06/24/15 11:16PM	
Surr: 2-Fluorobiphenyl	90.8	NA	54.6-110	NA		%REC	06/24/15 9:25AM	06/24/15 11:16PM	
Surr: 4-Terphenyl-d14	115	NA	10.7-110	NA	S	%REC	06/24/15 9:25AM	06/24/15 11:16PM	
ACROLEIN BY E624			**Method: EPA 624**					**Analyst: JM**	
Acrolein	ND	NA	10	NA		µg/L		06/24/15 3:39PM	PA/VA
VOLATILE ORGANIC COMPOUNDS			**Method: EPA 624**					**Analyst: JM**	
1,1,1-Trichloroethane	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
1,1,2-Trichloroethane	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
1,1-Dichloroethane	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
1,1-Dichloroethene	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
1,2-Dichlorobenzene	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
1,2-Dichloroethane	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
1,2-Dichloropropane	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
1,3-Dichlorobenzene	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
1,4-Dichlorobenzene	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
2-Chloroethyl vinyl ether	ND	NA	5.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Acrylonitrile	ND	NA	10.0	NA		µg/L		06/24/15 3:39PM	PA/VA
Benzene	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Bromodichloromethane	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Bromoform	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Bromomethane	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Carbon tetrachloride	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Chlorobenzene	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Chloroethane	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Chloroform	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Chloromethane	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
cis-1,3-Dichloropropene	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Dibromochloromethane	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Ethylbenzene	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Methylene chloride	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Tetrachloroethene	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Toluene	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
trans-1,2-Dichloroethene	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
trans-1,3-Dichloropropene	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Trichloroethene	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Vinyl chloride	ND	NA	1.00	NA		µg/L		06/24/15 3:39PM	PA/VA
Surr: 1,2-Dichloroethane-d4	95.8	NA	68.7-129	NA		%REC		06/24/15 3:39PM	
Surr: 4-Bromofluorobenzene	96.2	NA	71.8-127	NA		%REC		06/24/15 3:39PM	

REI Consultants, Inc. - Analytical Report

WO#: 1506T26

Date Reported: 7/6/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	6/23/2015 9:00:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	6/23/2015
Lab ID:	1506T26-01A	**Matrix:**	Waste Water
Client Sample ID:	DAILY FINAL EFF	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL Qual	Units	Prep Date	Date Analyzed	NELAC
Surr: Toluene-d8	91.1	NA	71.4-129	NA	%REC		06/24/15 3:39PM	
PHENOLICS				**Method: EPA 420.1, Rev. 1978)**			**Analyst: SF**	
Phenolics	0.020	NA	0.010	NA	mg/L		06/24/15 7:39AM	PA/VA
Cyanide				**Method: EPA 335.4, Rev. 1 (1993)**			**Analyst: JH**	
Cyanide, Total	ND	NA	0.020	NA	mg/L	06/24/15 8:55AM	06/25/15 12:18PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 1506T26

Date Reported: 7/6/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	6/23/2015 12:00:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	6/23/2015
Lab ID:	1506T26-02A	**Matrix:**	Trip Blank
Client Sample ID:	TRIP BLANK	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL Qual	Units	Prep Date	Date Analyzed	NELAC
ACROLEIN BY E624				**Method: EPA 624**			**Analyst: JM**	
Acrolein	ND	NA	10	NA	µg/L		06/25/15 7:09AM	PA/VA
VOLATILE ORGANIC COMPOUNDS				**Method: EPA 624**			**Analyst: JM**	
1,1,1-Trichloroethane	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
1,1,2-Trichloroethane	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
1,1-Dichloroethane	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
1,1-Dichloroethene	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
1,2-Dichlorobenzene	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
1,2-Dichloroethane	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
1,2-Dichloropropane	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
1,3-Dichlorobenzene	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
1,4-Dichlorobenzene	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
2-Chloroethyl vinyl ether	ND	NA	5.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Acrylonitrile	ND	NA	10.0	NA	µg/L		06/25/15 7:09AM	PA/VA
Benzene	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Bromodichloromethane	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Bromoform	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Bromomethane	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Carbon tetrachloride	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Chlorobenzene	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Chloroethane	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Chloroform	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Chloromethane	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
cis-1,3-Dichloropropene	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Dibromochloromethane	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Ethylbenzene	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Methylene chloride	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Tetrachloroethene	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Toluene	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
trans-1,2-Dichloroethene	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
trans-1,3-Dichloropropene	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Trichloroethene	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Vinyl chloride	ND	NA	1.00	NA	µg/L		06/25/15 7:09AM	PA/VA
Surr: 1,2-Dichloroethane-d4	95.1	NA	68.7-129	NA	%REC		06/25/15 7:09AM	
Surr: 4-Bromofluorobenzene	97.1	NA	71.8-127	NA	%REC		06/25/15 7:09AM	
Surr: Toluene-d8	89.3	NA	71.4-129	NA	%REC		06/25/15 7:09AM	

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506T26

Date Reported: 7/6/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

Test Code: 200.8

Sample ID:	LCS-61845	Samp Type:	LCS	Test Code:	200.8	Units:	mg/L	Prep Date:	6/25/2015	RunNo:	358067		
Client ID:	LCSW	Batch ID:	61845	TestNo:	EPA 200.8 Rev. 5.4 (1994)	EPA 200.2		Analysis Date:	6/26/2015	SeqNo:	5610047		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Antimony	0.0210	0.0010	0.0200	0	105	85	115				
Arsenic	0.102	0.0050	0.1000	0	102	85	115				
Beryllium	0.0202	0.0010	0.0200	0	101	85	115				
Cadmium	0.0207	0.0010	0.0200	0	103	85	115				
Chromium	0.106	0.0050	0.1000	0	106	85	115				
Copper	0.105	0.0050	0.1000	0	105	85	115				
Lead	0.0209	0.0010	0.0200	0	104	85	115				
Nickel	0.105	0.0100	0.1000	0	105	85	115				
Selenium	0.107	0.0050	0.1000	0	107	85	115				
Silver	0.106	0.0050	0.1000	0	106	85	115				
Thallium	0.0210	0.0010	0.0200	0	105	85	115				
Zinc	0.101	0.0100	0.1000	0	101	85	115				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506T26
Date Reported: 7/6/2015

Client: UTILITIES, INC-Massanutten PSA
Project: Expanded Effluent Testing Data
Test Code: 624_ACROLEIN

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_ACROLEIN	Units:	µg/L	Prep Date:		RunNo:	357894
Client ID:	LCSW	Batch ID:	R357894	TestNo:	EPA 624			Analysis Date:	6/24/2015	SeqNo:	5607151

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Acrolein	54	10	50.00	0	107	70	130				

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_ACROLEIN	Units:	µg/L	Prep Date:		RunNo:	357894
Client ID:	LCSW	Batch ID:	R357894	TestNo:	EPA 624			Analysis Date:	6/24/2015	SeqNo:	5607158

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Acrolein	45	10	50.00	0	89.3	70	130				

Sample ID:	8260-624 LCS	Samp Type:	LCS	Test Code:	624_ACROLEIN	Units:	µg/L	Prep Date:		RunNo:	357898
Client ID:	LCSW	Batch ID:	R357898	TestNo:	EPA 624			Analysis Date:	6/24/2015	SeqNo:	5607244

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Acrolein	41	10	50.00	0	82.0	70	130				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506T26
Date Reported: 7/6/2015

Client: UTILITIES, INC-Massanutten PSA
Project: Expanded Effluent Testing Data
Test Code: 624_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	357895
Client ID:	LCSW	Batch ID:	R357895	TestNo:	EPA 624			Analysis Date:	6/24/2015	SeqNo:	5607160

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	8.71	1.00	10.00	0	87.1	70	130				
1,1,2,2-Tetrachloroethane	9.05	1.00	10.00	0	90.5	70	130				
1,1,2-Trichloroethane	8.78	1.00	10.00	0	87.8	70	130				
1,1-Dichloroethane	9.01	1.00	10.00	0	90.1	70	130				
1,1-Dichloroethene	9.11	1.00	10.00	0	91.1	70	130				
1,2-Dichlorobenzene	9.40	1.00	10.00	0	94.0	70	130				
1,2-Dichloroethane	9.30	1.00	10.00	0	93.0	70	130				
1,2-Dichloropropane	9.04	1.00	10.00	0	90.4	70	130				
1,3-Dichlorobenzene	9.03	1.00	10.00	0	90.3	70	130				
1,4-Dichlorobenzene	9.10	1.00	10.00	0	91.0	70	130				
2-Chloroethyl vinyl ether	46.8	5.00	50.00	0	93.6	70	130				
Acrylonitrile	102	10.0	100.0	0	102	70	130				
Benzene	8.92	1.00	10.00	0	89.2	77	150				
Bromodichloromethane	8.97	1.00	10.00	0	89.7	70	130				
Bromoform	8.88	1.00	10.00	0	88.8	70	130				
Bromomethane	9.58	1.00	10.00	0	95.8	70	130				
Carbon tetrachloride	8.06	1.00	10.00	0	80.6	70	130				
Chlorobenzene	8.60	1.00	10.00	0	86.0	70	130				
Chloroethane	11.1	1.00	10.00	0	111	70	130				
Chloroform	8.81	1.00	10.00	0	88.1	70	130				
Chloromethane	8.50	1.00	10.00	0	85.0	70	130				
cis-1,3-Dichloropropene	8.69	1.00	10.00	0	86.9	70	130				
Dibromochloromethane	8.81	1.00	10.00	0	88.1	70	130				
Ethylbenzene	8.56	1.00	10.00	0	85.6	70	130				
Methylene chloride	9.11	1.00	10.00	0	91.1	70	130				
Tetrachloroethene	8.23	1.00	10.00	0	82.3	70	130				
Toluene	8.37	1.00	10.00	0	83.7	70	130				
trans-1,2-Dichloroethene	8.92	1.00	10.00	0	89.2	70	130				
trans-1,3-Dichloropropene	8.52	1.00	10.00	0	85.2	70	130				
Trichloroethene	8.84	1.00	10.00	0	88.4	70	130				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506T26
Date Reported: 7/6/2015

Client: UTILITIES, INC-Massanutten PSA
Project: Expanded Effluent Testing Data **Test Code:** 624_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	357895
Client ID:	LCSW	Batch ID:	R357895	TestNo:	EPA 624			Analysis Date:	6/24/2015	SeqNo:	5607160

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Vinyl chloride	9.56	1.00	10.00	0	95.6	70	130				
Surr: 1,2-Dichloroethane-d4	9.91		10.00		99.1	67.6	120				
Surr: 4-Bromofluorobenzene	9.81		10.00		98.1	75.9	127				
Surr: Toluene-d8	9.64		10.00		96.4	76.4	124				

Sample ID:	8260-624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	357899
Client ID:	LCSW	Batch ID:	R357899	TestNo:	EPA 624			Analysis Date:	6/24/2015	SeqNo:	5607252

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	8.69	1.00	10.00	0	86.9	70	130				
1,1,2,2-Tetrachloroethane	8.76	1.00	10.00	0	87.6	70	130				
1,1,2-Trichloroethane	8.39	1.00	10.00	0	83.9	70	130				
1,1-Dichloroethane	9.22	1.00	10.00	0	92.2	70	130				
1,1-Dichloroethene	9.30	1.00	10.00	0	93.0	70	130				
1,2-Dichlorobenzene	9.78	1.00	10.00	0	97.8	70	130				
1,2-Dichloroethane	9.29	1.00	10.00	0	92.9	70	130				
1,2-Dichloropropane	9.29	1.00	10.00	0	92.9	70	130				
1,3-Dichlorobenzene	9.25	1.00	10.00	0	92.5	70	130				
1,4-Dichlorobenzene	9.17	1.00	10.00	0	91.7	70	130				
2-Chloroethyl vinyl ether	43.1	5.00	50.00	0	86.1	70	130				
Acrylonitrile	97.4	10.0	100.0	0	97.4	70	130				
Benzene	9.27	1.00	10.00	0	92.7	77	150				
Bromodichloromethane	8.47	1.00	10.00	0	84.7	70	130				
Bromoform	9.11	1.00	10.00	0	91.1	70	130				
Bromomethane	9.85	1.00	10.00	0	98.5	70	130				
Carbon tetrachloride	7.13	1.00	10.00	0	71.3	70	130				
Chlorobenzene	8.66	1.00	10.00	0	86.6	70	130				
Chloroethane	10.9	1.00	10.00	0	109	70	130				
Chloroform	8.75	1.00	10.00	0	87.5	70	130				
Chloromethane	8.06	1.00	10.00	0	80.6	70	130				
cis-1,3-Dichloropropene	9.21	1.00	10.00	0	92.1	70	130				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506T26
Date Reported: 7/6/2015

Client: UTILITIES, INC-Massanutten PSA
Project: Expanded Effluent Testing Data
Test Code: 624_L

Sample ID:	8260-624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	357899
Client ID:	LCSW	Batch ID:	R357899	TestNo:	EPA 624			Analysis Date:	6/24/2015	SeqNo:	5607252

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Dibromochloromethane	8.47	1.00	10.00	0	84.7	70	130				
Ethylbenzene	8.73	1.00	10.00	0	87.3	70	130				
Methylene chloride	9.33	1.00	10.00	0	93.3	70	130				
Tetrachloroethene	8.47	1.00	10.00	0	84.7	70	130				
Toluene	8.48	1.00	10.00	0	84.8	70	130				
trans-1,2-Dichloroethene	9.30	1.00	10.00	0	93.0	70	130				
trans-1,3-Dichloropropene	8.59	1.00	10.00	0	85.9	70	130				
Trichloroethene	9.26	1.00	10.00	0	92.6	70	130				
Vinyl chloride	9.94	1.00	10.00	0	99.4	70	130				
Surr: 1,2-Dichloroethane-d4	9.82		10.00		98.2	67.6	120				
Surr: 4-Bromofluorobenzene	10.0		10.00		100	75.9	127				
Surr: Toluene-d8	9.38		10.00		93.8	76.4	124				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506T26
Date Reported: 7/6/2015

Client: UTILITIES, INC-Massanutten PSA
Project: Expanded Effluent Testing Data
Test Code: 625_SUP_L

Sample ID:	LCS-61787	Samp Type:	LCS	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	6/24/2015	RunNo:	357911
Client ID:	LCSW	Batch ID:	61787	TestNo:	EPA 625 (1982)	SW3510		Analysis Date:	6/24/2015	SeqNo:	5607346

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Acenaphthene	0.0427	0.0100	0.0500	0	85.4	50	143				
Acenaphthylene	0.0452	0.0100	0.0500	0	90.3	36	145				
Anthracene	0.0454	0.0100	0.0500	0	90.8	31	132				
Benzo(a)anthracene	0.0487	0.0100	0.0500	0	97.5	33	141				
Benzo(a)pyrene	0.0440	0.0100	0.0500	0	88.0	13	166				
Benzo(b)fluoranthene	0.0466	0.0100	0.0500	0	93.2	22	157				
Benzo(g,h,i)perylene	0.0450	0.0100	0.0500	0	90.1	0	214				
Benzo(k)fluoranthene	0.0455	0.0100	0.0500	0	91.1	10	158				
Bis(2-chloroethoxy)methane	0.0431	0.0100	0.0500	0	86.3	28	176				
Bis(2-chloroethyl)ether	0.0390	0.0100	0.0500	0	78.1	12	154				
Bis(2-chloroisopropyl)ether	0.0420	0.0100	0.0500	0	84.0	33	164				
Bis(2-ethylhexyl)phthalate	0.0486	0.0100	0.0500	0	97.3	7	157				
4-Bromophenyl phenyl ether	0.0447	0.0100	0.0500	0	89.4	51	126				
Butyl benzyl phthalate	0.0481	0.0100	0.0500	0	96.1	0	148				
4-Chloro-3-methylphenol	0.0452	0.0100	0.0500	0	90.4	18	151				
2-Chloronaphthalene	0.0412	0.0100	0.0500	0	82.3	59	119				
2-Chlorophenol	0.0408	0.0100	0.0500	0	81.7	20	137				
4-Chlorophenyl phenyl ether	0.0439	0.0100	0.0500	0	87.7	27	157				
Chrysene	0.0436	0.0100	0.0500	0	87.1	18	164				
Dibenzo(a,h)anthracene	0.0471	0.0100	0.0500	0	94.1	0	239				
Di-n-butyl phthalate	0.0550	0.0100	0.0500	0	110	0	121				
3,3'-Dichlorobenzidine	0.0461	0.0100	0.0500	0	92.1	0	227				
2,4-Dichlorophenol	0.0456	0.0100	0.0500	0	91.3	36	138				
Diethyl phthalate	0.0522	0.0100	0.0500	0	104	0	103				S
2,4-Dimethylphenol	0.0427	0.0100	0.0500	0	85.4	31	129				
4,6-Dinitro-2-methylphenol	0.0438	0.0100	0.0500	0	87.5	0	191				
2,4-Dinitrophenol	0.0298	0.0100	0.0500	0	59.6	0	219				
2,4-Dinitrotoluene	0.0434	0.0100	0.0500	0	86.9	33	132				
2,6-Dinitrotoluene	0.0432	0.0100	0.0500	0	86.3	51	146				
Di-n-octyl phthalate	0.0452	0.0100	0.0500	0	90.5	1	147				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506T26
Date Reported: 7/6/2015

Client: UTILITIES, INC-Massanutten PSA
Project: Expanded Effluent Testing Data
Test Code: 625_SUP_L

Sample ID:	LCS-61787	Samp Type:	LCS	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	6/24/2015	RunNo:	357911
Client ID:	LCSW	Batch ID:	61787	TestNo:	EPA 625 (1982)	SW3510		Analysis Date:	6/24/2015	SeqNo:	5607346

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Fluoranthene	0.0464	0.0100	0.0500	0	92.7	29	137				
Fluorene	0.0432	0.0100	0.0500	0	86.4	59	122				
Hexachlorobenzene	0.0431	0.0100	0.0500	0	86.1	0	152				
Hexachlorobutadiene	0.0351	0.0100	0.0500	0	70.2	23	115				
Hexachloroethane	0.0325	0.0100	0.0500	0	64.9	38	105				
Indeno(1,2,3-cd)pyrene	0.0458	0.0100	0.0500	0	91.5	0	162				
Isophorone	0.0486	0.0100	0.0500	0	97.2	21	209				
Naphthalene	0.0404	0.0100	0.0500	0	80.7	25	134				
Nitrobenzene	0.0430	0.0100	0.0500	0	85.9	34	172				
2-Nitrophenol	0.0464	0.0100	0.0500	0	92.8	23	186				
4-Nitrophenol	0.0231	0.0100	0.0500	0	46.2	0	137				
N-Nitrosodi-n-propylamine	0.0492	0.0100	0.0500	0	98.4	0	209				
Pentachlorophenol	0.0396	0.0100	0.0500	0	79.3	5	189				
Phenanthrene	0.0435	0.0100	0.0500	0	87.0	5	120				
Phenol	0.0190	0.0100	0.0500	0	37.9	4	87				
Pyrene	0.0445	0.0100	0.0500	0	89.1	52	116				
1,2,4-Trichlorobenzene	0.0371	0.0100	0.0500	0	74.2	43	142				
Surr: 2-Fluorophenol	0.0248		0.0500		49.7	32.9	110				
Surr: Phenol-d5	0.0187		0.0500		37.5	25.8	110				
Surr: 2,4,6-Tribromophenol	0.0491		0.0500		98.3	63.8	110				
Surr: Nitrobenzene-d5	0.0500		0.0500		100	61.8	110				
Surr: 2-Fluorobiphenyl	0.0447		0.0500		89.5	58.6	110				
Surr: 4-Terphenyl-d14	0.0550		0.0500		110	55.1	110				S

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506T26

Date Reported: 7/6/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

Test Code: CN_335.4

Sample ID:	LCS-61784	Samp Type:	LCS	Test Code:	CN_335.4	Units:	mg/L	Prep Date:	6/24/2015	RunNo:	357874		
Client ID:	LCSW	Batch ID:	61784	TestNo:	EPA 335.4, Rev. 1 (1993)			Analysis Date:	6/25/2015	SeqNo:	5606582		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Cyanide, Total	0.098	0.020	0.100	0	98.1	89.9	110.1				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506T26
Date Reported: 7/6/2015

Client: UTILITIES, INC-Massanutten PSA
Project: Expanded Effluent Testing Data
Test Code: HG_T_AUTO

Sample ID:	LCS-61863	Samp Type:	LCS	Test Code:	HG_T_AUTO	Units:	mg/L	Prep Date:	6/26/2015	RunNo:	358132
Client ID:	LCSW	Batch ID:	61863	TestNo:	EPA 245.1, Rev. 3.0 (1994)	EPA 245.1		Analysis Date:	6/29/2015	SeqNo:	5611350

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Mercury	0.0103	0.0010	0.0100	0	103	85	115				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506T26
Date Reported: 7/6/2015

Client: UTILITIES, INC-Massanutten PSA
Project: Expanded Effluent Testing Data
Test Code: PHENOLICS_L

Sample ID:	LCS-R357759	Samp Type:	LCS	Test Code:	PHENOLICS_L	Units:	mg/L	Prep Date:		RunNo:	357759
Client ID:	LCSW	Batch ID:	R357759	TestNo:	EPA 420.1, Rev. 1978)			Analysis Date:	6/24/2015	SeqNo:	5604545

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Phenolics	0.096	0.010	0.100	0	96.0	89.9	110.1				

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: (304)255-2500
Website: www.reiclabs.com

Improving the environment, one client at a time...

Sample Receipt Checklist

Client Name:	UTI002			Work Order Number:	1506T26
RCPNo:	1	Date and Time Received:	6/23/2015 8:48:51 PM	Received by:	Steven Cummins
Completed By:	Josh Lewis		Reviewed By:	Beth Johnson	
Completed Date:	6/23/2015 8:49:56 PM		Reviewed Date:	6/24/2015 12:49 PM	

Carrier Name: REIC

1.	Chain of custody present?	Yes [x]	No [ ]	
2.	Chain of custody signed when relinquished and received?	Yes [x]	No [ ]	
3.	Are matrices correctly identified on Chain of custody?	Yes [x]	No [ ]	
4.	Is it clear what analyses were requested?	Yes [x]	No [ ]	
5.	Custody seals intact?	Yes [ ]	No [ ]	Not Present [x]
6.	Samples in proper container type and preservative?	Yes [x]	No [ ]	
7.	Were correct preservatives noted on COC?	Yes [x]	No [ ]	NA [ ]
8.	Sample containers intact?	Yes [x]	No [ ]	
9.	Sufficient sample volume for indicated test?	Yes [x]	No [ ]	
10.	Were container labels complete?	Yes [x]	No [ ]	
11.	All samples received within holding time?	Yes [x]	No [ ]	
12.	Was an attempt made to cool the samples?	Yes [x]	No [ ]	NA [ ]
13.	Sample Temp. taken and recorded upon receipt?	Yes [x]	No [ ]	To 1 °C
14.	Water - Were bubbles absent in VOC vials?	Yes [x]	No [ ]	No Vials [ ]
15.	Are Samples considered acceptable?	Yes [x]	No [ ]	
16.	COC filled out properly?	Yes [x]	No [ ]	

Client Notification/Response

Client Name: UTI002 Work Order Number: 1506T26

Comment:

Client Contacted: Yes [ ] No [ ] NA [x] Person Contacted:

Contact Mode: Phone [ ] Fax: [ ] Email: [ ] In Person: [ ]

Date Contacted: Contacted By:

Regarding:

Client Instructions:

Corrective Action:

DBPix Evaluation

CHAIN OF CUSTODY RECORD

v10-0114

REIC use ONLY — CLIENT ID _____ DATE _____ SHEET ____

REIC
Research Environmental & Industrial Consultants, Inc.
MAIN LABORATORY & CORPORATE HEADQUARTERS:
P.O. Box 286 • 225 Industrial Park Rd, Beaver, WV 25813
800-999-0105 • 304-255-2500 • www.reiclabs.com

MID-OHIO VALLEY Service Center
101 17th Street
Ashland, KY 41101
606-393-5027

SHENANDOAH Service Center
1557 Commerce Rd., Ste 201
Verona, VA 24482
540-248-0183

ROANOKE Service Center
3029-C Peters Creek Rd
Roanoke, VA 24019
540-777-1276

MORGANTOWN Service Center
16 Commerce Drive
Westover, WV 26501
304-241-5861

Client: UTILITIES, INC.-Massanutten PSA — PO # 189426 ~~[illegible]~~

Contact Person: Mr. Keith Sampson — Phone: 289-9922

Address: 1550 Resort Drive — City: McGaheysville — State: VA — Zip: 22840

Billing Address (if different): 2335 Sanders Road

City: Northbrook — State: IL — Zip: 60062

Site ID & State: VA — Project ID: Expanded Effluent Testing — Sampler: K. Sayer

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME: ⊙ NORMAL — RUSH TURNAROUND*: ○ 5 DAY ○ 3 DAY ○ 2 DAY ○ 1 DAY

*Rush work needs prior laboratory approval and will incur additional charges

ANALYSIS & METHOD REQUESTED: PP 624 plus Acrolein; PP Cyanide; PP Phenolics; PP Metals & Hardness; PP 625

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	0	5	3	2	0				
Daily Final Eff.	2-40 ml gc	6-23-15 09:00	W Water	Grab	X								
Daily Final Eff.	4-40 ml g	6-23-15 09:00	W Water	Grab	X								
Daily Final Eff.	1-250 p	6-23-15 09:00	W Water	Grab		X							
Daily Final Eff.	1-250 g	6-23-15 09:00	W Water	Grab			X						
Daily Final Eff.	1-500 p	6-23-15 09:00	W Water	Grab				X					
Daily Final Eff.	6-ltr g	6-23-15 09:00	W Water	Grab					X				
Trip Blank	(JC)		Choose	Choose									
			Choose	Choose									
			Choose	Choose									

ENTER PRESERVATIVE CODE(S):
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide/ Sodium Arsenite
6 Sodium Hydroxide
7 Ascorbic Acid
8 Sodium Bisulfate/Methanol
9 Ammonium Chloride
10 _____*
11 _____*
* (Use blanks for preservatives not listed.)

COMMENTS:
Priority Pollutants
Quote 2136

All analytical requests are subject to REIC's Standard Terms and Conditions.

Temperature at arrival: °C — ICED? Y ✓ N ___

Containers provided by: [✓ REIC] [ ] Client

	Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
1	[signature]	6-23-15 09:05	[signature]	6-23-15 09:26
2	rec'd M Todd Silvan	6-23-15 17:12	[signature]	6-23-15 17:19
3	rec'd by Jack Lewis	6-23-15 17:36	[signature]	6-23-15 17:40

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www.ammara.com

Jeffries, Dawn (DEQ)

From: Don Smiley [DESmiley@uiwater.com]
Sent: Monday, June 22, 2015 10:14 AM
To: Jeffries, Dawn (DEQ)
Subject: FW: Analytical Report: 1506B55,Expanded Effluent Testing Data
Attachments: COC_1506B55_v1.pdf; Rpt_1506B55_Final_v1.pdf

-----Original Message-----
From: Keith Sampson
Sent: Monday, June 22, 2015 6:38 AM
To: Don Smiley
Subject: FW: Analytical Report: 1506B55,Expanded Effluent Testing Data

-----Original Message-----
From: alerts@reiconnectonline.net [mailto:alerts@reiconnectonline.net]
Sent: Friday, June 19, 2015 11:49 AM
To: Keith Sampson
Cc: bjohnson@reiclabs.com
Subject: Analytical Report: 1506B55,Expanded Effluent Testing Data

1506B55-Attached are your results in electronic format.

Please feel free to contact me by email at bjohnson@reiclabs.com with any questions.

Sincerely,

Beth Johnson
Project Manager
bjohnson@reiclabs.com
PO Box 286
Beaver, WV 25813
REI Consultants, Inc.
TEL: (304) 255-2500
FAX: (304) 255-2572
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Improving the environment, one client at a time...

3029-C Peters Creek Road
Roanoke, VA 24019
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101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.248.0183

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Thursday, June 18, 2015

Mr. Keith Sampson
UTILITIES, INC-Massanutten PSA
P.O. Box 51
Elkton, VA 22827

TEL: (540) 289-9922
FAX: (540) 289-3239

RE: Expanded Effluent Testing Data
Work Order #: 1506B55

Dear Mr. Keith Sampson:

REI Consultants, Inc. received 2 sample(s) on 6/9/2015 for the analyses presented in the following report.

Sincerely,

Beth Johnson

Beth Johnson
Project Manager

REI Consultants, Inc. - Case Narrative

WO#: 1506B55

Date Reported: 6/18/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

Please note if the sample collection time is not provided on the Chain of Custody, the default recording will be 0:00:00. This may cause some tests to be apparently analyzed out of hold.

All tests performed by REIC Service Centers are designated by an annotation on the test code. All other tests were performed by REIC's Main Laboratory in Beaver, WV.

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DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration denoted by "J" qualifier.
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
X: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, VADCLS (VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460148, PADEP 68-00839
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094, WV 389
Morgantown, WV: WVDHHR 003112M, WVDEP 387

REI Consultants, Inc. - Analytical Report

WO#: 1506B55

Date Reported: 6/18/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	6/9/2015 9:00:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	6/9/2015
Lab ID:	1506B55-01A	**Matrix:**	Waste Water
Client Sample ID:	DAILY FINAL EFF.	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Prep Date	Date Analyzed	NELAC
METALS BY ICP-MS				**Method: EPA 200.8 Rev. 5.4 (1994)**				**Analyst: LF**	
Antimony	0.0002	NA	0.0010	NA	J	mg/L	06/11/15 12:00PM	06/15/15 6:13PM	PA/VA
Arsenic	ND	NA	0.0050	NA		mg/L	06/11/15 12:00PM	06/15/15 6:13PM	PA/VA
Beryllium	ND	NA	0.0010	NA		mg/L	06/11/15 12:00PM	06/15/15 6:13PM	PA/VA
Cadmium	ND	NA	0.0010	NA		mg/L	06/11/15 12:00PM	06/15/15 6:13PM	PA/VA
Chromium	ND	NA	0.0050	NA		mg/L	06/11/15 12:00PM	06/15/15 6:13PM	PA/VA
Copper	0.0092	NA	0.0050	NA		mg/L	06/11/15 12:00PM	06/15/15 6:13PM	PA/VA
Lead	ND	NA	0.0010	NA		mg/L	06/11/15 12:00PM	06/15/15 6:13PM	PA/VA
Nickel	0.0025	NA	0.0100	NA	J	mg/L	06/11/15 12:00PM	06/15/15 6:13PM	PA/VA
Selenium	ND	NA	0.0050	NA		mg/L	06/11/15 12:00PM	06/15/15 6:13PM	PA/VA
Silver	ND	NA	0.0050	NA		mg/L	06/11/15 12:00PM	06/15/15 6:13PM	PA/VA
Thallium	ND	NA	0.0010	NA		mg/L	06/11/15 12:00PM	06/15/15 6:13PM	PA/VA
Zinc	0.0279	NA	0.0100	NA		mg/L	06/11/15 12:00PM	06/15/15 6:13PM	PA/VA
HARDNESS				**Method: SM2340 B-1997**				**Analyst: CGW**	
Hardness, Total (As CaCO3)	210	NA	1.00	NA		mg/L	06/15/15 9:55AM	06/16/15 9:00PM	VA
MERCURY, Total E245.1				**Method: EPA 245.1, Rev. 3.0 (1994)**				**Analyst: CR**	
Mercury	ND	NA	0.0010	NA		mg/L	06/12/15 1:20PM	06/15/15 10:24AM	PA/VA
SEMIVOLATILE ORGANIC COMPOUNDS				**Method: EPA 625 (1982)**				**Analyst: JC**	
Acenaphthene	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Acenaphthylene	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Anthracene	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Benzidine	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/17/15 12:20AM	PA/VA
Benzo(a)anthracene	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Benzo(a)pyrene	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Benzo(b)fluoranthene	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Benzo(g,h,i)perylene	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Benzo(k)fluoranthene	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Bis(2-chloroethoxy)methane	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Bis(2-chloroethyl)ether	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Bis(2-chloroisopropyl)ether	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Bis(2-ethylhexyl)phthalate	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
4-Bromophenyl phenyl ether	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Butyl benzyl phthalate	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
4-Chloro-3-methylphenol	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
2-Chloronaphthalene	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	
2-Chlorophenol	ND	NA	0.0100	NA		mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 1506B55

Date Reported: 6/18/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	6/9/2015 9:00:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	6/9/2015
Lab ID:	1506B55-01A	**Matrix:**	Waste Water
Client Sample ID:	DAILY FINAL EFF.	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL Qual	Units	Prep Date	Date Analyzed	NELAC
4-Chlorophenyl phenyl ether	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Chrysene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
o-Cresol	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
m,p-Cresol	ND	NA	0.0200	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Dibenzo(a,h)anthracene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Di-n-butyl phthalate	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
3,3'-Dichlorobenzidine	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
2,4-Dichlorophenol	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Diethyl phthalate	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Dimethyl phthalate	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
2,4-Dimethylphenol	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
4,6-Dinitro-2-methylphenol	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
2,4-Dinitrophenol	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
2,4-Dinitrotoluene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
2,6-Dinitrotoluene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Di-n-octyl phthalate	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
1,2-Diphenylhydrazine	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Fluoranthene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Fluorene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Hexachlorobenzene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Hexachlorobutadiene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Hexachlorocyclopentadiene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Hexachloroethane	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Indeno(1,2,3-cd)pyrene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Isophorone	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Naphthalene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Nitrobenzene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
2-Nitrophenol	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
4-Nitrophenol	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
N-Nitrosodimethylamine	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
N-Nitrosodiphenylamine	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
N-Nitrosodi-n-propylamine	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Pentachlorophenol	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Phenanthrene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Phenol	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Pyrene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
1,2,4-Trichlorobenzene	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
2,4,6-Trichlorophenol	ND	NA	0.0100	NA	mg/L	06/11/15 12:30PM	06/13/15 2:22AM	PA/VA
Surr: 2-Fluorophenol	43.7	NA	25.9-110	NA	%REC	06/11/15 12:30PM	06/13/15 2:22AM	
Surr: Phenol-d5	31.2	NA	8.2-110	NA	%REC	06/11/15 12:30PM	06/13/15 2:22AM	
Surr: 2,4,6-Tribromophenol	82.4	NA	61.7-110	NA	%REC	06/11/15 12:30PM	06/13/15 2:22AM	

REI Consultants, Inc. - Analytical Report

WO#: 1506B55

Date Reported: 6/18/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	6/9/2015 9:00:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	6/9/2015
Lab ID:	1506B55-01A	**Matrix:**	Waste Water
Client Sample ID:	DAILY FINAL EFF.	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL Qual	Units	Prep Date	Date Analyzed	NELAC
Surr: Nitrobenzene-d5	102	NA	62.2-110	NA	%REC	06/11/15 12:30PM	06/13/15 2:22AM	
Surr: 2-Fluorobiphenyl	81.4	NA	54.6-110	NA	%REC	06/11/15 12:30PM	06/13/15 2:22AM	
Surr: 4-Terphenyl-d14	85.6	NA	10.7-110	NA	%REC	06/11/15 12:30PM	06/13/15 2:22AM	
ACROLEIN BY E624				**Method: EPA 624**			**Analyst: JM**	
Acrolein	ND	NA	10	NA	µg/L		06/11/15 11:38PM	PA/VA
VOLATILE ORGANIC COMPOUNDS				**Method: EPA 624**			**Analyst: JM**	
1,1,1-Trichloroethane	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
1,1,2-Trichloroethane	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
1,1-Dichloroethane	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
1,1-Dichloroethene	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
1,2-Dichlorobenzene	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
1,2-Dichloroethane	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
1,2-Dichloropropane	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
1,3-Dichlorobenzene	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
1,4-Dichlorobenzene	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
2-Chloroethyl vinyl ether	ND	NA	5.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Acrylonitrile	ND	NA	10.0	NA	µg/L		06/11/15 11:38PM	PA/VA
Benzene	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Bromodichloromethane	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Bromoform	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Bromomethane	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Carbon tetrachloride	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Chlorobenzene	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Chloroethane	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Chloroform	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Chloromethane	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
cis-1,3-Dichloropropene	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Dibromochloromethane	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Ethylbenzene	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Methylene chloride	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Tetrachloroethene	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Toluene	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
trans-1,2-Dichloroethene	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
trans-1,3-Dichloropropene	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Trichloroethene	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Vinyl chloride	ND	NA	1.00	NA	µg/L		06/11/15 11:38PM	PA/VA
Surr: 1,2-Dichloroethane-d4	113	NA	68.7-129	NA	%REC		06/11/15 11:38PM	
Surr: 4-Bromofluorobenzene	97.4	NA	71.8-127	NA	%REC		06/11/15 11:38PM	

REI Consultants, Inc. - Analytical Report

WO#: 1506B55

Date Reported: 6/18/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	6/9/2015 9:00:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	6/9/2015
Lab ID:	1506B55-01A	**Matrix:**	Waste Water
Client Sample ID:	DAILY FINAL EFF.	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Prep Date	Date Analyzed	NELAC
Surr: Toluene-d8	97.2	NA	71.4-129	NA		%REC		06/11/15 11:38PM	
PHENOLICS				**Method: EPA 420.1, Rev. 1978)**				**Analyst: SF**	
Phenolics	ND	NA	0.010	NA		mg/L		06/10/15 7:40AM	PA/VA
Cyanide				**Method: EPA 335.4, Rev. 1 (1993)**				**Analyst: JH**	
Cyanide, Total	ND	NA	0.020	NA		mg/L	06/10/15 9:05AM	06/10/15 12:04PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 1506B55

Date Reported: 6/18/2015

Client:	UTILITIES, INC-Massanutten PSA	**Collection Date:**	6/9/2015 12:00:00 AM
Project:	Expanded Effluent Testing Data	**Date Received:**	6/9/2015
Lab ID:	1506B55-02A	**Matrix:**	Trip Blank
Client Sample ID:	TRIP BLANK	**Site ID:**	VA

Analysis	Result	MDL	PQL	MCL Qual	Units	Prep Date	Date Analyzed	NELAC
ACROLEIN BY E624				**Method: EPA 624**			**Analyst: JM**	
Acrolein	ND	NA	10	NA	µg/L		06/12/15 12:12AM	PA/VA
VOLATILE ORGANIC COMPOUNDS				**Method: EPA 624**			**Analyst: JM**	
1,1,1-Trichloroethane	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
1,1,2-Trichloroethane	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
1,1-Dichloroethane	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
1,1-Dichloroethene	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
1,2-Dichlorobenzene	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
1,2-Dichloroethane	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
1,2-Dichloropropane	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
1,3-Dichlorobenzene	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
1,4-Dichlorobenzene	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
2-Chloroethyl vinyl ether	ND	NA	5.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Acrylonitrile	ND	NA	10.0	NA	µg/L		06/12/15 12:12AM	PA/VA
Benzene	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Bromodichloromethane	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Bromoform	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Bromomethane	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Carbon tetrachloride	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Chlorobenzene	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Chloroethane	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Chloroform	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Chloromethane	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
cis-1,3-Dichloropropene	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Dibromochloromethane	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Ethylbenzene	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Methylene chloride	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Tetrachloroethene	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Toluene	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
trans-1,2-Dichloroethene	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
trans-1,3-Dichloropropene	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Trichloroethene	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Vinyl chloride	ND	NA	1.00	NA	µg/L		06/12/15 12:12AM	PA/VA
Surr: 1,2-Dichloroethane-d4	118	NA	68.7-129	NA	%REC		06/12/15 12:12AM	
Surr: 4-Bromofluorobenzene	94.3	NA	71.8-127	NA	%REC		06/12/15 12:12AM	
Surr: Toluene-d8	98.1	NA	71.4-129	NA	%REC		06/12/15 12:12AM	

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506B55

Date Reported: 6/18/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

Test Code: **624_ACROLEIN**

Sample ID:	**8260/624 LCS**	Samp Type:	**LCS**	Test Code:	**624_ACROLEIN**	Units:	**µg/L**	Prep Date:			RunNo:	**356939**	
Client ID:	**LCSW**	Batch ID:	**R356939**	TestNo:	**EPA 624**			Analysis Date:		**6/12/2015**	SeqNo:	**5588439**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Acrolein	36	10	50.00	0	72.8	70	130				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506B55

Date Reported: 6/18/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

Test Code: 624_L

Sample ID:	8260/624 LCS	Samp Type:	LCS	Test Code:	624_L	Units:	µg/L	Prep Date:		RunNo:	356940
Client ID:	LCSW	Batch ID:	R356940	TestNo:	EPA 624			Analysis Date:	6/12/2015	SeqNo:	5588464

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.0	1.00	10.00	0	100	70	130				
1,1,2,2-Tetrachloroethane	8.14	1.00	10.00	0	81.4	70	130				
1,1,2-Trichloroethane	8.79	1.00	10.00	0	87.9	70	130				
1,1-Dichloroethane	10.5	1.00	10.00	0	105	70	130				
1,1-Dichloroethene	12.1	1.00	10.00	0	121	70	130				
1,2-Dichlorobenzene	8.74	1.00	10.00	0	87.4	70	130				
1,2-Dichloroethane	11.2	1.00	10.00	0	112	70	130				
1,2-Dichloropropane	9.00	1.00	10.00	0	90.0	70	130				
1,3-Dichlorobenzene	8.67	1.00	10.00	0	86.7	70	130				
1,4-Dichlorobenzene	8.47	1.00	10.00	0	84.7	70	130				
2-Chloroethyl vinyl ether	26.6	5.00	25.00	0	107	70	130				
Acrylonitrile	101	10.0	100.0	0	101	70	130				
Benzene	9.96	1.00	10.00	0	99.6	77	150				
Bromodichloromethane	9.04	1.00	10.00	0	90.4	70	130				
Bromoform	8.16	1.00	10.00	0	81.6	70	130				
Bromomethane	11.3	1.00	10.00	0	113	70	130				
Carbon tetrachloride	8.06	1.00	10.00	0	80.6	70	130				
Chlorobenzene	8.89	1.00	10.00	0	88.9	70	130				
Chloroethane	8.88	1.00	10.00	0	88.8	70	130				
Chloroform	10.6	1.00	10.00	0	106	70	130				
Chloromethane	8.54	1.00	10.00	0	85.4	70	130				
cis-1,3-Dichloropropene	8.86	1.00	10.00	0	88.6	70	130				
Dibromochloromethane	9.19	1.00	10.00	0	91.9	70	130				
Ethylbenzene	9.38	1.00	10.00	0	93.8	70	130				
Methylene chloride	10.3	1.00	10.00	0	103	70	130				
Tetrachloroethene	9.34	1.00	10.00	0	93.4	70	130				
Toluene	9.33	1.00	10.00	0	93.3	70	130				
trans-1,2-Dichloroethene	11.2	1.00	10.00	0	112	70	130				
trans-1,3-Dichloropropene	8.61	1.00	10.00	0	86.1	70	130				
Trichloroethene	9.99	1.00	10.00	0	99.9	70	130				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506B55

Date Reported: 6/18/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data **Test Code:** **624_L**

Sample ID:	**8260/624 LCS**	Samp Type:	**LCS**	Test Code:	**624_L**	Units:	**µg/L**	Prep Date:		RunNo:	**356940**		
Client ID:	**LCSW**	Batch ID:	**R356940**	TestNo:	**EPA 624**			Analysis Date:	**6/12/2015**	SeqNo:	**5588464**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Vinyl chloride	8.30	1.00	10.00	0	83.0	70	130				
Surr: 1,2-Dichloroethane-d4	11.7		10.00		117	67.6	120				
Surr: 4-Bromofluorobenzene	9.78		10.00		97.8	75.9	127				
Surr: Toluene-d8	9.67		10.00		96.7	76.4	124				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506B55

Date Reported: 6/18/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

Test Code: 625_SUP_L

Sample ID:	LCS-61497	Samp Type:	LCS	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	6/11/2015	RunNo:	357077
Client ID:	LCSW	Batch ID:	61497	TestNo:	EPA 625 (1982)	SW3510		Analysis Date:	6/12/2015	SeqNo:	5590546

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Acenaphthene	0.0375	0.0100	0.0500	0	75.0	50	143				
Acenaphthylene	0.0377	0.0100	0.0500	0	75.4	36	145				
Anthracene	0.0392	0.0100	0.0500	0	78.5	31	132				
Benzo(a)anthracene	0.0389	0.0100	0.0500	0	77.8	33	141				
Benzo(a)pyrene	0.0401	0.0100	0.0500	0	80.2	13	166				
Benzo(b)fluoranthene	0.0403	0.0100	0.0500	0	80.5	22	157				
Benzo(g,h,i)perylene	0.0432	0.0100	0.0500	0	86.5	0	214				
Benzo(k)fluoranthene	0.0411	0.0100	0.0500	0	82.1	10	158				
Bis(2-chloroethoxy)methane	0.0401	0.0100	0.0500	0	80.2	28	176				
Bis(2-chloroethyl)ether	0.0357	0.0100	0.0500	0	71.3	12	154				
Bis(2-chloroisopropyl)ether	0.0381	0.0100	0.0500	0	76.2	33	164				
Bis(2-ethylhexyl)phthalate	0.0395	0.0100	0.0500	0	79.1	7	157				
4-Bromophenyl phenyl ether	0.0400	0.0100	0.0500	0	80.0	51	126				
Butyl benzyl phthalate	0.0372	0.0100	0.0500	0	74.4	0	148				
4-Chloro-3-methylphenol	0.0369	0.0100	0.0500	0	73.7	18	151				
2-Chloronaphthalene	0.0355	0.0100	0.0500	0	70.9	59	119				
2-Chlorophenol	0.0355	0.0100	0.0500	0	70.9	20	137				
4-Chlorophenyl phenyl ether	0.0380	0.0100	0.0500	0	76.0	27	157				
Chrysene	0.0385	0.0100	0.0500	0	77.1	18	164				
Dibenzo(a,h)anthracene	0.0435	0.0100	0.0500	0	87.1	0	239				
Di-n-butyl phthalate	0.0394	0.0100	0.0500	0	78.8	0	121				
3,3'-Dichlorobenzidine	0.0319	0.0100	0.0500	0	63.8	0	227				
2,4-Dichlorophenol	0.0374	0.0100	0.0500	0	74.8	36	138				
Diethyl phthalate	0.0384	0.0100	0.0500	0	76.9	0	103				
2,4-Dimethylphenol	0.0397	0.0100	0.0500	0	79.4	31	129				
4,6-Dinitro-2-methylphenol	0.0409	0.0100	0.0500	0	81.7	0	191				
2,4-Dinitrophenol	0.0386	0.0100	0.0500	0	77.2	0	219				
2,4-Dinitrotoluene	0.0373	0.0100	0.0500	0	74.6	33	132				
2,6-Dinitrotoluene	0.0406	0.0100	0.0500	0	81.2	51	146				
Di-n-octyl phthalate	0.0411	0.0100	0.0500	0	82.2	1	147				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506B55

Date Reported: 6/18/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

Test Code: 625_SUP_L

Sample ID:	LCS-61497	Samp Type:	LCS	Test Code:	625_SUP_L	Units:	mg/L	Prep Date:	6/11/2015	RunNo:	357077
Client ID:	LCSW	Batch ID:	61497	TestNo:	EPA 625 (1982)	SW3510		Analysis Date:	6/12/2015	SeqNo:	5590546

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Fluoranthene	0.0406	0.0100	0.0500	0	81.3	29	137				
Fluorene	0.0383	0.0100	0.0500	0	76.6	59	122				
Hexachlorobenzene	0.0401	0.0100	0.0500	0	80.3	0	152				
Hexachlorobutadiene	0.0297	0.0100	0.0500	0	59.4	23	115				
Hexachloroethane	0.0257	0.0100	0.0500	0	51.4	38	105				
Indeno(1,2,3-cd)pyrene	0.0433	0.0100	0.0500	0	86.5	0	162				
Isophorone	0.0395	0.0100	0.0500	0	78.9	21	209				
Naphthalene	0.0324	0.0100	0.0500	0	64.8	25	134				
Nitrobenzene	0.0414	0.0100	0.0500	0	82.8	34	172				
2-Nitrophenol	0.0390	0.0100	0.0500	0	78.0	23	186				
4-Nitrophenol	0.0438	0.0100	0.0500	0	87.7	0	137				
N-Nitrosodi-n-propylamine	0.0378	0.0100	0.0500	0	75.6	0	209				
Pentachlorophenol	0.0430	0.0100	0.0500	0	85.9	5	189				
Phenanthrene	0.0398	0.0100	0.0500	0	79.6	5	120				
Phenol	0.0182	0.0100	0.0500	0	36.3	4	87				
Pyrene	0.0366	0.0100	0.0500	0	73.2	52	116				
1,2,4-Trichlorobenzene	0.0296	0.0100	0.0500	0	59.2	43	142				
Surr: 2-Fluorophenol	0.0208		0.0500		41.6	32.9	110				
Surr: Phenol-d5	0.0152		0.0500		30.5	25.8	110				
Surr: 2,4,6-Tribromophenol	0.0386		0.0500		77.2	63.8	110				
Surr: Nitrobenzene-d5	0.0457		0.0500		91.5	61.8	110				
Surr: 2-Fluorobiphenyl	0.0401		0.0500		80.2	58.6	110				
Surr: 4-Terphenyl-d14	0.0464		0.0500		92.9	55.1	110				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506B55

Date Reported: 6/18/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

Test Code: CN_335.4

Sample ID:	**LCS-61449**	Samp Type:	**LCS**	Test Code:	**CN_335.4**	Units:	**mg/L**	Prep Date:	**6/10/2015**	RunNo:	**356692**		
Client ID:	**LCSW**	Batch ID:	**61449**	TestNo:	**EPA 335.4, Rev. 1 (1993)**			Analysis Date:	**6/10/2015**	SeqNo:	**5583706**		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual	
Cyanide, Total		0.098	0.020	0.100	0	98.1	89.9	110.1					

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506B55

Date Reported: 6/18/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

Test Code: HG_T_AUTO

Sample ID:	**LCS-61540**	Samp Type:	**LCS**	Test Code:	**HG_T_AUTO**	Units:	**mg/L**	Prep Date:	**6/12/2015**	RunNo:	**357053**
Client ID:	**LCSW**	Batch ID:	**61540**	TestNo:	**EPA 245.1, Rev. 3.0 (1994)**	**EPA 245.1**		Analysis Date:	**6/15/2015**	SeqNo:	**5590306**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Mercury	0.0100	0.0010	0.0100	0	100	85	115				

REI Consultants, Inc. - QC SUMMARY REPORT

WO#: 1506B55

Date Reported: 6/18/2015

Client: UTILITIES, INC-Massanutten PSA

Project: Expanded Effluent Testing Data

Test Code: **PHENOLICS_L**

Sample ID:	**LCS-R356691**	Samp Type:	**LCS**	Test Code:	**PHENOLICS_L**	Units:	**mg/L**	Prep Date:		RunNo:	**356691**		
Client ID:	**LCSW**	Batch ID:	**R356691**	TestNo:	**EPA 420.1, Rev. 1978)**			Analysis Date:	**6/10/2015**	SeqNo:	**5583688**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Phenolics	0.095	0.010	0.100	0	95.0	89.9	110.1				

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: (304)255-2500
Website: www.reiclabs.com

Improving the environment, one client at a time...

Sample Receipt Checklist

Client Name:	UTI002			Work Order Number:	1506B55
RCPNo:	1	Date and Time Received:	6/9/2015 8:59:38 PM	Received by:	Steven Cummins
Completed By:	Brandon Cole		Reviewed By:	Beth Johnson	
Completed Date:	6/9/2015 9:00:07 PM		Reviewed Date:	6/10/2015 4:20 PM	

Carrier Name: REIC

1.	Chain of custody present?	Yes [x]	No [ ]	
2.	Chain of custody signed when relinquished and received?	Yes [x]	No [ ]	
3.	Are matrices correctly identified on Chain of custody?	Yes [x]	No [ ]	
4.	Is it clear what analyses were requested?	Yes [x]	No [ ]	
5.	Custody seals intact?	Yes [ ]	No [ ]	Not Present [x]
6.	Samples in proper container type and preservative?	Yes [x]	No [ ]	
7.	Were correct preservatives noted on COC?	Yes [x]	No [ ]	NA [ ]
8.	Sample containers intact?	Yes [x]	No [ ]	
9.	Sufficient sample volume for indicated test?	Yes [x]	No [ ]	
10.	Were container labels complete?	Yes [x]	No [ ]	
11.	All samples received within holding time?	Yes [x]	No [ ]	
12.	Was an attempt made to cool the samples?	Yes [x]	No [ ]	NA [ ]
13.	Sample Temp. taken and recorded upon receipt?	Yes [x]	No [ ]	To 1 °C
14.	Water - Were bubbles absent in VOC vials?	Yes [ ]	No [ ]	No Vials [x]
15.	Are Samples considered acceptable?	Yes [x]	No [ ]	
16.	COC filled out properly?	Yes [x]	No [ ]	

Client Notification/Response

Client Name: UTI002 Work Order Number: 1506B55

Comment:

Client Contacted: Yes [ ] No [ ] NA [x] Person Contacted:

Contact Mode: Phone [ ] Fax: [ ] Email: [ ] In Person: [ ]

Date Contacted: Contacted By:

Regarding:

Client Instructions:

Corrective Action:

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

December 02, 2014

Mr. Scott Gross
REI Consultants, Inc
P O Box 286
Beaver, WV 25813

RE: Project: 1411N39-02A
Pace Project No.: 35165092

Dear Mr. Gross:
Enclosed are the analytical results for sample(s) received by the laboratory on November 21, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Sakina Mckenzie
sakina.mckenzie@pacelabs.com
Project Manager

Enclosures

cc: Ms. Beth Johnson, REI Consultants, Inc

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

CERTIFICATIONS

Project: 1411N39-02A
Pace Project No.: 35165092

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Arizona Certification #: AZ0735
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New Jersey Certification #: FL765
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Washington Certification #: C955
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: 1411N39-02A
Pace Project No.: 35165092

Sample: 1411N39-02A **Lab ID: 35165092001** Collected: 11/19/14 08:30 Received: 11/21/14 09:40 Matrix: Water

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510							
Atrazine	**0.70U**	ug/L	1.6	1	11/26/14 10:00	11/26/14 19:27	1912-24-9	
Azinphos, methyl (Guthion)	**0.28U**	ug/L	0.52	1	11/26/14 10:00	11/26/14 19:27	86-50-0	
Carbophenothion (Trithion)	**0.24U**	ug/L	0.52	1	11/26/14 10:00	11/26/14 19:27	786-19-6	
Chlorpyrifos	**0.25U**	ug/L	0.52	1	11/26/14 10:00	11/26/14 19:27	2921-88-2	
Coumaphos	**0.27U**	ug/L	0.52	1	11/26/14 10:00	11/26/14 19:27	56-72-4	
Diazinon	**0.27U**	ug/L	0.52	1	11/26/14 10:00	11/26/14 19:27	333-41-5	
Dichlorvos	**0.21U**	ug/L	0.52	1	11/26/14 10:00	11/26/14 19:27	62-73-7	
Dimethoate	**0.25U**	ug/L	0.52	1	11/26/14 10:00	11/26/14 19:27	60-51-5	
Disulfoton	**0.26U**	ug/L	0.52	1	11/26/14 10:00	11/26/14 19:27	298-04-4	
Ethion	**0.28U**	ug/L	0.52	1	11/26/14 10:00	11/26/14 19:27	563-12-2	
Famphur	**0.30U**	ug/L	0.52	1	11/26/14 10:00	11/26/14 19:27	52-85-7	
Malathion	**0.28U**	ug/L	0.52	1	11/26/14 10:00	11/26/14 19:27	121-75-5	
Methyl parathion	**0.28U**	ug/L	0.52	1	11/26/14 10:00	11/26/14 19:27	298-00-0	
Mevinphos	**0.23U**	ug/L	0.52	1	11/26/14 10:00	11/26/14 19:27	7786-34-7	
Monocrotophos	**0.15U**	ug/L	1.0	1	11/26/14 10:00	11/26/14 19:27	919-44-8	L2
Parathion (Ethyl parathion)	**0.49U**	ug/L	1.0	1	11/26/14 10:00	11/26/14 19:27	56-38-2	
Phorate	**0.43U**	ug/L	1.0	1	11/26/14 10:00	11/26/14 19:27	298-02-2	
Phosmet	**0.28U**	ug/L	0.52	1	11/26/14 10:00	11/26/14 19:27	732-11-6	
Surrogates								
4-Chloro3nitrobenzotrifluoride	75	%	34.2-122	1	11/26/14 10:00	11/26/14 19:27		

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: 1411N39-02A
Pace Project No.: 35165092

QC Batch: OEXT/19831
QC Batch Method: EPA 3510
Associated Lab Samples: 35165092001

Analysis Method: EPA 8141
Analysis Description: 8141 GCS, O/P Pesticides

METHOD BLANK: 1066101
Matrix: Water
Associated Lab Samples: 35165092001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Atrazine	ug/L	0.68U	1.5	11/25/14 15:17	
Azinphos, methyl (Guthion)	ug/L	0.27U	0.50	11/25/14 15:17	
Carbophenothion (Trithion)	ug/L	0.23U	0.50	11/25/14 15:17	
Chlorpyrifos	ug/L	0.24U	0.50	11/25/14 15:17	
Coumaphos	ug/L	0.26U	0.50	11/25/14 15:17	
Diazinon	ug/L	0.26U	0.50	11/25/14 15:17	
Dichlorvos	ug/L	0.20U	0.50	11/25/14 15:17	
Dimethoate	ug/L	0.24U	0.50	11/25/14 15:17	
Disulfoton	ug/L	0.26U	0.50	11/25/14 15:17	
Ethion	ug/L	0.27U	0.50	11/25/14 15:17	
Famphur	ug/L	0.29U	0.50	11/25/14 15:17	
Malathion	ug/L	0.27U	0.50	11/25/14 15:17	
Methyl parathion	ug/L	0.27U	0.50	11/25/14 15:17	
Mevinphos	ug/L	0.22U	0.50	11/25/14 15:17	
Monocrotophos	ug/L	0.15U	1.0	11/25/14 15:17	
Parathion (Ethyl parathion)	ug/L	0.47U	1.0	11/25/14 15:17	
Phorate	ug/L	0.42U	1.0	11/25/14 15:17	
Phosmet	ug/L	0.27U	0.50	11/25/14 15:17	
4-Chloro3nitrobenzotrifluoride	%	62	34.2-122	11/25/14 15:17	

LABORATORY CONTROL SAMPLE: 1066102

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Atrazine	ug/L	6	5.1	85	17-173	
Azinphos, methyl (Guthion)	ug/L	2	1.8	92	12-166	
Carbophenothion (Trithion)	ug/L	2	1.8	92	45-142	
Chlorpyrifos	ug/L	2	1.6	82	46-141	
Coumaphos	ug/L	2	1.8	92	48-131	
Diazinon	ug/L	2	1.8	91	45-146	
Dichlorvos	ug/L	2	1.4	72	17-171	
Dimethoate	ug/L	2	1.2	59	11-158	
Disulfoton	ug/L	2	1.7	87	41-134	
Ethion	ug/L	2	1.7	85	42-141	
Famphur	ug/L	2	1.7	86	38-143	
Malathion	ug/L	2	1.7	87	43-154	
Methyl parathion	ug/L	2	1.5	77	39-153	
Mevinphos	ug/L	2	1.4	69	34-135	
Monocrotophos	ug/L	4	0.15U	2	10-130	L0
Parathion (Ethyl parathion)	ug/L	4	3.1	78	33-158	
Phorate	ug/L	4	3.4	86	33-158	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: 1411N39-02A
Pace Project No.: 35165092

LABORATORY CONTROL SAMPLE: 1066102

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosmet	ug/L	2	1.8	91	33-148	
4-Chloro3nitrobenzotrifluoride	%			67	34.2-122	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1066663 1066664

Parameter	Units	35164704042 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Atrazine	ug/L	0.66U	6.1	5.9	5.0	3.8	82	65	17-173	26	
Azinphos, methyl (Guthion)	ug/L	0.27U	2	2	1.7	1.0	86	53	12-166	50	R1
Carbophenothion (Trithion)	ug/L	0.23U	2	2	1.7	1.0	82	53	45-142	46	R1
Chlorpyrifos	ug/L	0.24U	2	2	1.6	1.0	78	53	46-141	41	R1
Coumaphos	ug/L	0.26U	2	2	1.6	0.94	80	48	48-131	53	R1
Diazinon	ug/L	0.25U	2	2	1.7	1.0	85	52	45-146	52	R1
Dichlorvos	ug/L	0.20U	2	2	1.5	1.2	75	59	17-171	27	
Dimethoate	ug/L	0.23U	2	2	1.2	0.68	59	35	11-158	55	R1
Disulfoton	ug/L	0.25U	2	2	1.7	1.1	83	55	41-134	44	R1
Ethion	ug/L	0.26U	2	2	1.6	0.91	80	46	42-141	56	R1
Famphur	ug/L	0.29U	2	2	1.7	4.9	82	250	38-143	99	E,M1,R1
Malathion	ug/L	0.27U	2	2	1.7	1.1	83	56	43-154	41	R1
Methyl parathion	ug/L	0.26U	2	2	1.5	0.96	72	49	39-153	41	R1
Mevinphos	ug/L	0.22U	2	2	1.4	0.84	70	43	34-135	51	R1
Monocrotophos	ug/L	0.15U	4	3.9	0.15U	0.15U	3	2	10-130		M0
Parathion (Ethyl parathion)	ug/L	0.46U	4	3.9	3.1	2.0	76	51	33-158	42	R1
Phorate	ug/L	0.41U	4	3.9	3.4	2.3	84	59	33-158	38	
Phosmet	ug/L	0.27U	2	2	1.7	1.1	85	54	33-148	48	R1
4-Chloro3nitrobenzotrifluoride	%						60	79	34.2-122		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALIFIERS

Project: 1411N39-02A
Pace Project No.: 35165092

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 1411N39-02A
Pace Project No.: 35165092

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35165092001	**1411N39-02A**	EPA 3510	OEXT/19831	EPA 8141	GCSV/13027

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REIC

Improving the environment, one client at a time

WO#: 35165092

35165092

DC ID: 3123 PAGE: 1 OF: 1

ADDRESS
REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: 304.255.2500
FAX:
Website: www.reiclabs.com

Please Include Email Address of Report Recipient Whenever Possible!!!

SUB CONTRATOR: PACE_FL COMPANY: PACE ANALYTICAL SERVIC

ADDRESS: 8 EAST TOWER CIRCLE

CITY, STATE, ZIP: ORMOND BEACH, FL 32174

PHONE: (386) 672-5668 FAX

ACCOUNT #: EMAIL:

SPECIAL INSTRUCTIONS / COMMENTS:

State Code: VA Please use SampleID as purchase order number.
After analysis, the samples do not need to be returned and can be disposed per your standard laboratory practices. PLEASE EMAIL RESULTS TO BJOHNSON@REICLABS.COM THANK YOU

ANALYTICAL PARAMETERS

ITEM	SAMPLE ID	Client Sample ID	Bottle Type	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	8141_L_SUB (SW8141A)
						*	0
1	1411N39-02A	DAILY FINAL EFFLUENT GRAB		Liquid	11/19/2014 8:30:00 AM	1	√

* Preservation Codes:
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide/ Sodium Arsenite
6 Sodium Hydroxide
7 Ascorbic Acid
8 Sodium Sulfite/HCL
9 Potassium Dihydrogen Citrate
10 Bromium Chloride

COMMENTS:

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[illegible]	11-20-14	7pm	[illegible]	11-20-14	7pm
Relinquished By:	Date:	Time:	Received By: [illegible]	Date: 11-21-14	Time: 940
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAT: Standard ☑ RUSH Next BD ☐ 2nd BD ☐ 3rd BD ☐

Note: RUSH requests will incur surcharges!

REPORT TRANSMITTAL DESIRED:
☐ HARDCOPY (extra cost) ☐ FAX ☑ EMAIL ☐ ONLINE

FOR LAB USE ONLY
Temp of samples ___ °C Attempt to Cool ? ___
Comments:

Pace Analytical	Sample Condition Upon Receipt Form Document No.: F-FL-C-007 rev. 06	August 11, 2014 Issuing Authority: Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Table Number: _____

Client Name: REC Project # 35165042

Color: ☐ Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other _____

Tracking # 1Z26X713136061 8243

Cuody Seal on Cooler/Box Present: ☐ yes ☐ no Seals intact: ☐ yes ☐ no

Date and initials of person examining contents: 11-21-14

Paing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thmometer Used T-187 Type of Ice: (Wet) Blue None

Coer Temperature °C 2.9 (Visual) 0 (Correction Factor) 2.9 (Actual) 940

(Temp should be above freezing to 6°C). If below 0°C, the was sample frozen? ☐ Yes ☐ No

Reipt of samples satisfactory: ☐ Yes ☐ No Rush TAT requested on COC:

If ys, then all conditions below were met:	If no, then mark box & describe issue (use comments area if necessary):
Cin of Custody Present	☐
Cin of Custody Filled Out	☐
Requished Signature & Sampler Name COC	☐
Saples Arrived within Hold Time	☐
Sucient Volume	☐
Coect Containers Used	☐
Coainers Intact	☐
Saple Labels match COC (sample IDs & date/time of collection)	☐ No Labels: ☐ No Time/Date on Labels: ☐
All ntainers needing preservation are found to be in conance with EPA recommendation.	☐
Ndeadspace in VOA Vials (>6mm):	☐

Clnt Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution (use back for additional comments): _____

Project Manager Review: _____ Date: _____

Finished Product Information Only

F. Sample ID: _____

Production Code: _____

Date/Time Opened: _____

Number of Unopened Bottles Remaining: _____

Extra Sample in Shed: Yes No

Size & Qty of Bottles Received

_____ x 5 Gal.
_____ x 2.5 Gal
_____ x 1 Gal
_____ x 1 Liter
_____ x 500 mL
_____ x 250 mL
_____ x Other: _____

UNIVERSAL LABORATORIES

REPORT OF ANALYSIS

Order ID: UL1411242

(REPORT DATE)
04-Dec-14

TO: REI Consultants, Inc
225 Industrial Park Drive

Beaver WV 25813

ATTN: Beth Johnson

FaxNumber: (304) 255-2572
E-MAIL

This report contains the analytical results for Project Id N/A
designated as UL Order Id **UL14112** and received on *Friday, November 21, 2014*
The results contained in this report relate only to the samples identified on this order. The analytical results meet all requirements of NELAC unless specifically stated. This report shall not be reproduced except in full.

Email report to bjohnson@reiclabs.com

The data in this report has been reviewed and validated by:

Signature

Name

VP Title

ANALYTICAL DATA REPORT

UL ORDER ID UL14112

UL Sample Number UL1411242-001

Grab Date/Time: 11/19/2014 08:30:00

Composite Start: N/A

Composite Stop: N/A

Collected By: client

Sample Site: 1411N39-02A Daily Final Effluent Grab

Client Sample ID: 1411N39-02A Daily Final Effluent Grab

Sample Matrix: Wastewater

Parameter	Test Result	Units	RL	Analysis Date/Time	Analyst	Comment
GC/FPD						
TBT Tributyltin	<0.03	ug/L	0.03	11/28/2014 19:25:24	BD	

Comments for UL1411242-001

No comments

ANALYTICAL DATA REPORT

UL ORDER ID UL14112

Analytical Methods Reference

VDEH Lab# 00030 VELAP ID 460036 NCDW Lab # 51706 NCWW Lab # 543

Description:	Prep Method:	Method	Reference	accredited/status
Wastewater				
TBT Tributyltin	bqtlq	GC/FPD		Accredited

NOTE: Analysis is performed according to Universal Laboratories Standard Operating Procedures which are based on the analytical methods referenced above

GLOSSARY OF TERMS AND ABBREVIATIONS

RL (Reporting Limit): The minimum levels, concentrations, or quantities of target analyte that can be reported with a specified degree of confidence.General y this number is near or equal to the lowest calibration standard run with the analytical batch.

MDL (Method Detection Limit): The constituent concentration that, when processed through the complete method, produces a signal with a 99% probability that it is different from the blank.

LCS (Laboratory Control Sample): is a sample matrix free from the analytes of interest, spiked with verified amounts of analytes.

MS (Matrix Spike): a sample prepared by adding a known mass of target analyte to a specific amount of sample for which an independant estimate of target analyte concentration is available

MSD (Matrix Spike Duplicate): is a replicate matrix spike prepared in the laboratory and anlyzed to obtain a measure of the precision recovery for each analtye.

Surrogate is a substance with properties that mimic the analyte of interest.It is unlikely to be found in environmental samples and is added to them for quality control purposes

IS (Internal Standard): is a known amount of standard added to a test portion of the sample as a reference for evaluation and controlling the precision and bias of the applied analytical method.

RPD (Relative Percent Difference) is the difference between a set of sample duplicates or sample spike duplicates

ICV (Initial Calibration Verification) CCV (Continuing Calibration Verification) FCV (Final Calibration Verification)

Method Blank is a sample matrix similar to the batch of associated samples that is free from analytes of interest and is processed simultaneously with and under the same conditions as samples.

Trip Blank is a sample of analyte free media collected in the same type of container that is required for the analytical test, taken from the laboratory to the sampling site and returned to the laboratory unopened. A trip blank is used to document contamination attributable to shipping and field handling procedures

Holding Time is the maximum times that samples may be held prior to analysis and still be considered valid or not compromised

ug/L=ppb ug/kg=ppb mg/kg=ppm mg/L=ppm

HAM= Analyzed in Hampton Lab

FRED= Analyzed in Fredericksburg Lab

QC Flag	Description
B	Analyte found in method blank
H	Holding time exceeded
L	LCS outside acceptable limits
V	ICV/CCV/FCV outside acceptable limits
D	RPD outside acceptable limits
MS	Matrix spike recovery outside acceptable limits
J	Result above calibration curve approximate value
QC	Method QC Critera not met
MI	Matrix Interference
S	Surrogate outside acceptable limits
IS	Internal standard outside acceptable limits
*	VELAP accreditation not available
**	VELAP not accredited
T	value is between the RL and MDL

REIC

Improving the environment, one client at a time...

CHAIN OF CUSTODY RECORD

COC ID: 3122 PAGE: 1 OF: 1

U21411242

ADDRESS
REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: 304.255.2500
FAX:
Website: www.reiclabs.com

Please Include Email Address of Report Recipient Whenever Possible!!!

SUB CONTRATOR: UNIVERSAL COMPANY: UNIVERSAL LABORATORIE
ADDRESS: 20 RESEARCH DRIVE
CITY, STATE, ZIP: HAMPTON, VA 23666
PHONE: (800) 695-2162 FAX:
ACCOUNT #: EMAIL:

SPECIAL INSTRUCTIONS / COMMENTS:
State Code: VA Please use SampleID as purchase order number.
After analysis, the samples do not need to be returned and can be disposed per your standard laboratory practices. PLEASE EMAIL RESULTS TO BJOHNSON@REICLABS.COM THANK YOU

ANALYTICAL PARAMETERS

ITEM	SAMPLE ID	Client Sample ID	Bottle Type	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	TRIBUTYLTIN SUB (NBSIR-85-3295)
1	1411N39-02A	DAILY FINAL EFFLUENT GRAB	.	Liquid	11/19/2014 8:30:00 AM	2	1 √

* Preservation Codes.
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide/ Sodium Arsenite
6 Sodium Hydroxide
7 Ascorbic Acid
8 Sodium Sulfite/HCL
9 Potassium Dihydrogen Citrate
10 Bromium Chloride

COMMENTS

Relinquished By	Date:	Time:	Received By	Date:	Time:
[signature]	11-20-14	4pm	UPS	11-20-14	4pm
Relinquished By	Date:	Time:	Received By [signature]	Date: 11-21-14	Time: 1130
Relinquished By	Date:	Time:	Received By	Date	Time:

TAT: Standard RUSH Next BD ☐ 2nd BD ☐ 3rd BD ☐

Note: RUSH requests will incur surcharges!

REPORT TRANSMITTAL DESIRED:
☐ HARDCOPY (extra cost) ☐ FAX ☑ EMAIL ☐ ONLINE

FOR LAB USE ONLY
Temp of samples 4 °C Attempt to Cool ?
Comments

Report Number: 15-043-0209
Account Number: 46534

A&L Eastern Laboratories, Inc.
7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401 Fax (804) 271-6446
www.aleastern.com

Send To: MASSANUTTEN PUBLIC SVC CORP
POB 51
ELKTON , VA 22827

Project : MASSANUTTEN PUBLIC SERVICE CORP

REPORT OF ANALYSIS

Date Sampled: 2/11/2015 14:00:00
Date Received: 02/12/2015 00:00
Date Reported: 02/19/2015

Lab Number : 60197
Sample Id : BIOSOLIDS

PARAMETER	RESULT (%)	RESULT (mg/kg)	QUANTITATION LIMIT (mg/kg*)	ANALYST	ANALYSIS DATE/TIME	METHOD
Total Solids *	0.98	9800	100.0	JM	02/13/2015 08:30	SM-2540G
Moisture *	99.02		100.0	JM	02/13/2015 08:30	SM-2540G
Total Kjeldahl Nitrogen	7.65	76500	10.0	JM	02/13/2015 09:15	SM-4500-NH3C-TKN
Total Phosphorus	1.59	15900	100	KM	02/13/2015 11:15	SW 6010C
Total Potassium	0.27	2720	100	KM	02/13/2015 11:15	SW 6010C
Total Sulfur	0.96	9600	100	KM	02/13/2015 11:15	SW 6010C
Total Calcium	3.64	36400	100	KM	02/13/2015 11:15	SW 6010C
Total Magnesium	0.35	3450	100	KM	02/13/2015 11:15	SW 6010C
Total Sodium	0.28	2820	100	KM	02/13/2015 11:15	SW 6010C
Total Iron		9710	100	KM	02/13/2015 11:15	SW 6010C
Total Aluminum		5400	100	KM	02/13/2015 11:15	SW 6010C
Total Manganese		1940	5	KM	02/13/2015 11:15	SW 6010C
Total Copper		506	5	KM	02/13/2015 11:15	SW 6010C
Total Zinc		724	5	KM	02/13/2015 11:15	SW 6010C
Ammonia Nitrogen	2.45	24500	10.0	JM	02/13/2015 09:15	SM-4500-NH3C
Organic N	5.20	52000	10.0		02/13/2015 09:15	CALCULATION
Nitrate+Nitrite-N		4960	2.00	JM	02/13/2015 09:15	SM-4500NO3F
Total Cadmium		<2.0	2.0	KM	02/13/2015 11:15	SW 6010C

All values are on a dry weight basis except as noted by asterisk. Detection limit on all N series is on a wet basis.

Debbie Holt

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Debbie Holt

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Project : MASSANUTTEN PUBLIC SERVICE CORP

REPORT OF ANALYSIS

Lab Number : 60197
Sample Id : BIOSOLIDS

Date Sampled: 2/11/2015 14:00:00
Date Received: 02/12/2015 00:00
Date Reported: 02/19/2015

PARAMETER	RESULT (%)	RESULT (mg/kg)	QUANTITATION LIMIT (mg/kg*)	ANALYST	ANALYSIS DATE/TIME	METHOD
Total Chromium		22	5	KM	02/13/2015 11:15	SW 6010C
Total Nickel		18	5	KM	02/13/2015 11:15	SW 6010C
Total Lead		9	5	KM	02/13/2015 11:15	SW 6010C
Total Arsenic		4.0	3.0	KM	02/13/2015 11:15	SW 6010C
Total Mercury		0.8	0.4	KM	02/12/2015 09:00	SW-7471B
Total Selenium		6.0	5.0	KM	02/13/2015 11:15	SW 6010C
pH (Standard Units) *	6.69		2.00	JM	02/13/2015 09:15	SW-9045D
Calcium Carbonate Equivalent	<0.01	<100	100	JM	02/16/2015 13:45	AOAC 955.01
Total Volatile Solids	78.20	782000	100.0	JM	02/13/2015 08:30	SM-2540G
Total Molybdenum		<5	5	KM	02/13/2015 11:15	SW 6010C
Alkalinity (as CaCO3)		93900	100	JM	02/13/2015 14:35	SM-2320 B

Comments:
NELAP ACCREDITED: VA NELAC LAB. # 460014. PA NELAC LAB # 68-03109, FL NELAC LAB # E871087, NJ NELAC LAB # VA011. RESULTS REPORTED MEET ALL REQUIREMENTS OF THE CURRENT NELAC STANDARDS. ALKALINITY, SULFUR AND ORGANIC NITROGEN NOT FOR COMPLIANCE PURPOSES. CCE FOR COMPLIANCE IN VIRGINIA AND PENNSYLVANIA ONLY.

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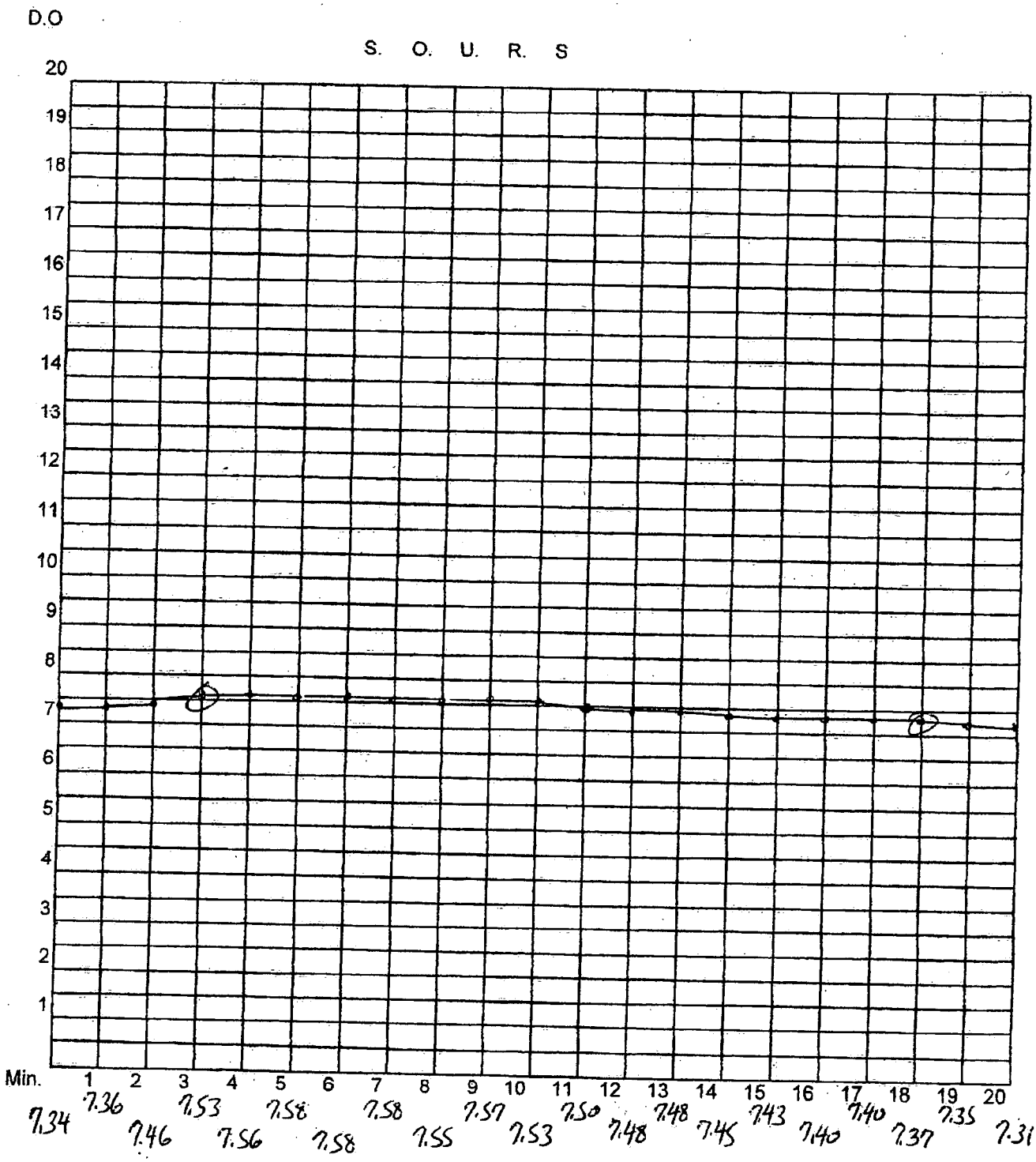
Debbie Holt

DATE 2-4-15
Time 1:45 pm

DIG #2
M.P.S.C.

MLSS 9660
Temp. 9.3°C
PH 6.46



7.53 - 7.37 = .16

.16 ÷ 15 = .0106

$\frac{.0106}{9.660} \times 60 = .066$

mg/oz/HG

Total Solids

Keith Sampson
Lead operator

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Fax: (540) 248-4604
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eclverona@envirocompliance.com

Analytical Results

V5307474

Utilities Inc.
Attn: Keith Sampson
P.O. Box 51
Elkton, VA 22827

Project Name : Digester #2
Date Received: March 06, 2015
Date Sampled : March 06, 2015
Time Sampled : 08:45
Date Issued : March 11, 2015

Lab # V5307474 - 1(A)/Sample ID : Digester #2

Parameter	Result	Units	QL	Date/Time Prepared	Date/Time Analyzed	Method	Analyst
Fecal Coliform	78000	MPN/g	180.0	03-06/1500	03-09/1515	9221E+C06	TGH

V5307474

Tamara G. Hostetter
Laboratory Manager

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Analytical Results

V4B06690

Utilities Inc.
Attn: Keith Sampson
P.O. Box 51
Elkton, VA 22827

Project Name : Digester #2
Date Received: November 04, 2014
Date Sampled : November 04, 2014
Time Sampled : 08:45
Date Issued : November 11, 2014

Lab # V4B06690 - 1(A)/Sample ID : Digester #2

Parameter	Result	Units	QL	Date/Time Prepared	Date/Time Analyzed	Method	Analyst
Fecal Coliform	8000	MPN/g	200	11-04/1310	11-07/1450	9221E+C06	TGH

V4B06690

Tamara Hostetter

V4B06690

Tamara G. Hostetter
Laboratory Manager
Report #: V4B06690 Page 1 of 2

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Analytical Results

V5407675

Utilities Inc.
Attn: Keith Sampson
P.O. Box 51
Elkton, VA 22827

Project Name : Digester #2
Date Received: April 03, 2015
Date Sampled : April 03, 2015
Time Sampled : 09:00
Date Issued : April 07, 2015

Lab # V5407675 - 1(A)/Sample ID : Digester #2

Parameter	Result	Units	QL	Date/Time Prepared	Date/Time Analyzed	Method	Analyst
Focal Coliform	45000	MPN/g	180.0	04-03/1600	04-06/1330	9221E+C06	TGH

V5407675

Tamara G. Hostetter
Laboratory Manager

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Analytical Results

V4C07005

Utilities Inc.
Attn: Keith Sampson
P.O. Box 51
Elkton, VA 22827

Project Name : Digester #2
Date Received: December 16, 2014
Date Sampled : December 16, 2014
Time Sampled : 09:10
Date Issued : December 22, 2014

Lab # V4C07005 - 1(A)/Sample ID : Digester #2

Parameter	Result	Units	QL	Date/Time Prepared	Date/Time Analyzed	Method	Analyst
Fecal Coliform	11000	MPN/g	200	12-16/1610	12-19/1330	9221E+C06	TGH

BQL - Below Quantitation Level
All data meets NELAC requirements unless otherwise noted.
+ = Analysis was sub-contracted.

V4C07005

Tamara G. Hostetter
Laboratory Manager
Report #: V4C07005 Page 1 of 2

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VELAP ID#: 460129

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Analytical Results

V5207364

Utilities Inc.
Attn: Keith Sampson
P.O. Box 51
Elkton, VA 22827

Project Name : Digester #2
Date Received: February 13, 2015
Date Sampled : February 13, 2015
Time Sampled : 09:20
Date Issued : February 18, 2015

Lab # V5207364 - 1(A)/Sample ID : Digester #2

Parameter	Result	Units	QL	Date/Time Prepared	Date/Time Analyzed	Method	Analyst
Fecal Coliform	24000	MPN/g	180.0	02-13/1500	02-16/1230	9221E+C06	TGH

V5207364 Tamara Hostetter V5207364

Tamara G. Hostetter
Laboratory Manager

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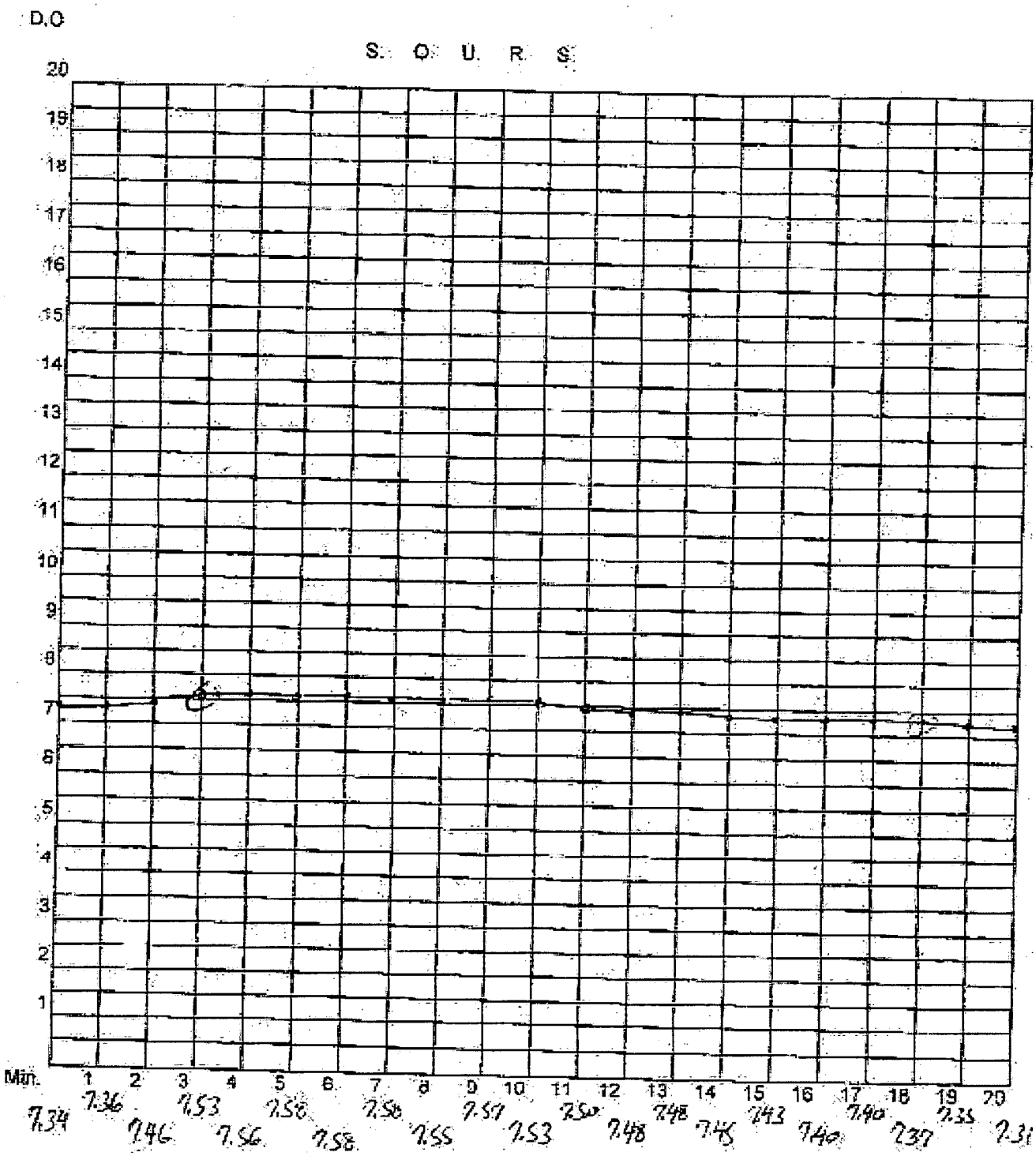
DATE 2-4-15
inc 1.45 gpm

DIG #2
M.P.S.G

MLSS 9660
Temp. 7.3°C
PH 6.46



7.53 - 7.37 = .16

.16 ÷ 15 = .0106

$\frac{.0106}{7.660} \times 60 = .066$

Keith Sampson
Lead operator

03/03/16

Total
Solids

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Analytical Results

V5107199

Utilities Inc.
Attn: Keith Sampson
P.O. Box 51
Elkton, VA 22827

Project Name : Digester #2
Date Received: January 20, 2015
Date Sampled : January 20, 2015
Time Sampled : 09:10
Date Issued : January 27, 2015

Lab # V5107199 - 1(A)/Sample ID : Digester #2

Parameter	Result	Units	QL	Date/Time Prepared	Date/Time Analyzed	Method	Analyst
Fecal Coliform	*160000	MPN/g	180.0	1-20/1500	01-22/1300	9221E+C06	TGH

BQL = Below Quantitation Level
All data meets NELAC requirements unless otherwise noted.
* = Analysis was sub-contracted.

V5107199

Tamara Hostetter

Tamara G. Hostetter
Laboratory Manager

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NELAP ACCREDITED LABORATORY

VELAP ID#: 460129

Report Number: 15-043-0209
Account Number: 46534

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Send To: MASSANUTTEN PUBLIC SVC CORP
POB 51
ELKTON, VA 22827

Project : MASSANUTTEN PUBLIC SERVICE CORP

REPORT OF ANALYSIS

Lab Number : 60197
Sample Id : BIOSOLIDS

Date Sampled: 2/11/2015 14:00:00
Date Received: 02/12/2015 00:00
Date Reported: 02/19/2015

PARAMETER	RESULT (%)	RESULT (mg/kg)	QUANTITATION LIMIT (mg/kg*)	ANALYST	ANALYSIS DATE/TIME	METHOD
Total Chromium		22	5	KM	02/13/2015 11:15	SW 6010C
Total Nickel		18	5	KM	02/13/2015 11:15	SW 6010C
Total Lead		9	5	KM	02/13/2015 11:15	SW 6010C
Total Arsenic		4.0	3.0	KM	02/13/2015 11:15	SW 6010C
Total Mercury		0.8	0.4	KM	02/12/2015 09:00	SW-7471B
Total Selenium		6.0	5.0	KM	02/13/2015 11:15	SW 6010C
pH (Standard Units) *	6.69		2.00	JM	02/13/2015 09:15	SW-9045D
Calcium Carbonate Equivalent	<0.01	<100	100	JM	02/16/2015 13:45	AOAC 955.01
Total Volatile Solids	78.20	782000	100.0	JM	02/13/2015 08:30	SM-2540G
Total Molybdenum		<5	5	KM	02/13/2015 11:15	SW 6010C
Alkalinity (as CaCO3)		93900	100	JM	02/13/2015 14:35	SM-2320 B

Comments:
NELAP ACCREDITED: VA NELAC LAB. # 460014. PA NELAC LAB # 68-03109, FL NELAC LAB # E871087, NJ NELAC LAB # VA011. RESULTS REPORTED MEET ALL REQUIREMENTS OF THE CURRENT NELAC STANDARDS. ALKALINITY, SULFUR AND ORGANIC NITROGEN NOT FOR COMPLIANCE PURPOSES. CCE FOR COMPLIANCE IN VIRGINIA AND PENNSYLVANIA ONLY.

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[illegible]

Debbie Holt

Report Number: 15-043-0209
Account Number: 46534

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Project : MASSANUTTEN PUBLIC SERVICE CORP

REPORT OF ANALYSIS

Lab Number : 60197
Sample Id : BIOSOLIDS

Date Sampled: 2/11/2015 14:00:00
Date Received: 02/12/2015 00:00
Date Reported: 02/19/2015

PARAMETER	RESULT (%)	RESULT (mg/kg)	QUANTITATION LIMIT (mg/kg*)	ANALYST	ANALYSIS DATE/TIME	METHOD
Total Solids *	0.98	9800	100.0	JM	02/13/2015 08:30	SM-2540G
Moisture *	99.02		100.0	JM	02/13/2015 08:30	SM-2540G
Total Kjeldahl Nitrogen	7.65	76500	10.0	JM	02/13/2015 09:15	SM-4500-NH3C-TKN
Total Phosphorus	1.59	15900	100	KM	02/13/2015 11:15	SW 6010C
Total Potassium	0.27	2720	100	KM	02/13/2015 11:15	SW 6010C
Total Sulfur	0.96	9600	100	KM	02/13/2015 11:15	SW 6010C
Total Calcium	3.64	36400	100	KM	02/13/2015 11:15	SW 6010C
Total Magnesium	0.35	3450	100	KM	02/13/2015 11:15	SW 6010C
Total Sodium	0.28	2820	100	KM	02/13/2015 11:15	SW 6010C
Total Iron		9710	100	KM	02/13/2015 11:15	SW 6010C
Total Aluminum		5400	100	KM	02/13/2015 11:15	SW 6010C
Total Manganese		1940	5	KM	02/13/2015 11:15	SW 6010C
Total Copper		506	5	KM	02/13/2015 11:15	SW 6010C
Total Zinc		724	5	KM	02/13/2015 11:15	SW 6010C
Ammonia Nitrogen	2.45	24500	10.0	JM	02/13/2015 09:15	SM-4500-NH3C
Organic N	5.20	52000	10.0		02/13/2015 09:15	CALCULATION
Nitrate+Nitrite-N		4960	2.00	JM	02/13/2015 09:15	SM-4500NO3F
Total Cadmium		<2.0	2.0	KM	02/13/2015 11:15	SW 6010C

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Debbie Holt

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