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EVALUATION REPORT

Send To: C0362147

Mr. Kent Madison
3R Valve, LLC
29299 Madison Road
Echo, OR 97826

Facility: C0362154

3R Valve, LLC
29299 Madison Road
Echo OR 97826
United States

Result	PASS	Report Date	19-MAY-2023
Customer Name	3R Valve, LLC		
Tested To	NSF/ANSI/CAN 61		
Description	ASR (Aqua System Recovery) Valve Components		
Trade Designation	ASR (Aqua System Recovery) Valve		
Test Type	Annual Retest		
Job Number	J-00434105		
Project Number	W0735654		
Project Manager	James Tucker		

Thank you for having your product tested by NSF.

Please contact your Project Manager if you have any questions or concerns pertaining to this report.

Report Authorization *Abbie M. Batog*

Date 19-MAY-2023

Abbie Batog - Senior Manager Commercial Water



General Information

Standard: NSF/ANSI/CAN 61

Physical Description of Sample: Components

Tested DCC Number: PM18264

Trade Designation/Model Number: ASR (Aqua System Recovery) Valve

Sample Id: **S-0001951851**
Description: Sample exposed at 23C and pH 5
Sampled Date: 10/21/2022
Received Date: 09/28/2022

Normalization Information:

Date exposure completed: 21-OCT-2022 Calculated N1: 0.19 Field Exposure Time: 24 hours Lab Exposure Time: 24 hours
Field Number of Units: 1 units Lab Number of Units: 1 units Constant N2: 0.041 Misc. Factor: 1
Field Static Volume: 38.6 L Lab Static Volume: 7.46 L
Calculated NFm: 1.00

Compound Reference Key: SPAC

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab					
* Standard 61 Additives LAB SUM TEST Code					
External Note:	1 unit = 1 Red Hose and 1 White Hose. A total of 1 unit exposed, in vessel.				
Metals I in water by ICPMS (Ref: EPA 200.8)					
Aluminum	ND(10)	ND(10)	ND(10)	ND(0.079)	ug/L
Arsenic	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Barium	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Beryllium	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Bismuth	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Cadmium	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Chromium	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Copper	2	ND(1)	2	0.01	ug/L
Mercury	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Nickel	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Lead	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Antimony	0.7	ND(0.5)	0.7	0.005	ug/L
Selenium	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Tin	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Strontium	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Thallium	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Zinc	79	ND(10)	79	0.63	ug/L
Silver	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L

Sample Id: **S-0001951852**
Description: Sample exposed at 23C and pH 8
Sampled Date: 10/21/2022
Received Date: 09/28/2022

Normalization Information:

Date exposure completed: 21-OCT-2022 Calculated N1: 0.19 Field Exposure Time: 24 hours Lab Exposure Time: 24 hours



Sample Id: **S-0001951852**

Normalization Information:

Field Number of Units:	1 units	Lab Number of Units:	1 units	Constant N2:	0.041	Misc. Factor:	1
Field Static Volume:	38.6 L	Lab Static Volume:	7.46 L				
				Calculated NFm:	1.00		
Compound Reference Key: SPAC							

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab					
* Standard 61 Additives LAB SUM TEST Code					
External Note:	1 unit = 1 Red Hose and 1 White Hose. A total of 1 unit exposed, in vessel.				
Metals I in water by ICPMS (Ref: EPA 200.8)					
Aluminum	ND(10)	ND(10)	ND(10)	ND(0.079)	ug/L
Arsenic	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Barium	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Beryllium	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Bismuth	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Cadmium	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Chromium	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Copper	2	ND(1)	2	0.01	ug/L
Mercury	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Nickel	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Lead	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Antimony	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Selenium	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Tin	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Strontium	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Thallium	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Zinc	18	ND(10)	18	0.14	ug/L
Silver	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
BASE/NEUTRAL/ACID EPA METHOD 625 Scan for Tentatively Identified Compound					
No Compounds Detected	ND(4)	Complete	ND(4)	ND(0.03)	ug/L
Scan Control Complete	TRUE				
Semivolatile Compounds, Base/Neutral/Acid Target 625, Data Workup					
Pyridine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Nitrosodimethylamine (N-)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Nitrosomethylethylamine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
5-Methyl-2-hexanone (MIAK)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1-Methoxy-2-propanol acetate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Heptanone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Cyclohexanone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Nitrosodiethylamine (N-)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Isobutylisobutyrate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Aniline	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Phenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Di(chloroethyl) ether	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Chlorophenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L



Sample Id: S-0001951852

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab (Continued)					
2,3-Benzofuran	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1,3-Dichlorobenzene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1,4-Dichlorobenzene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
3-Cyclohexene-1-carbonitrile	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Ethylhexanol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzyl alcohol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1,2-Dichlorobenzene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
bis(2-Chloroisopropyl)ether	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Methylphenol (o-Cresol)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Methylaniline	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Acetophenone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Nitrosodi-n-propylamine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Nitrosopyrrolidine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
3- and 4-Methylphenol (m&p-Cresol)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Hexachloroethane	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Phenyl-2-propanol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Nitrosomorpholine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Nitrobenzene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,6-Dimethylphenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Vinylpyrrolidinone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Nitrosopiperidine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Triethylphosphate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Isophorone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Nitrophenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,4-Dimethylphenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
bis(2-Chloroethoxy)methane	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,4-Dichlorophenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Trichlorobenzene (1,2,4-)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Naphthalene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
4-Chloroaniline	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1,1,3,3,-Tetramethyl-2-thiourea	ND(4)	ND(4)	ND(4)	ND(0.03)	ug/L
Hexachlorobutadiene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzothiazole	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Nitrosodi-n-butylamine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
4-Chloro-3-methylphenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
p-tert-Butylphenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Ethylhexyl glycidyl ether	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,6-Di-t-butyl-4-methylphenol(BHT)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Methylnaphthalene, 2-	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Cyclododecane	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,4,5-Trichlorophenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,4,6-trichlorophenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1(3H)-Isobenzofuranone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Chloronaphthalene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L



Sample Id: S-0001951852

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab (Continued)					
2-Nitroaniline	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1,1'-(1,3-Phenylene)bis ethanone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,6-Di-tert-butylphenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Dimethylphthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1,1'-(1,4-Phenylene)bis ethanone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Acenaphthylene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzenedimethanol, a,a,a',a'-tetramethyl-1,3-	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,6-Dinitrotoluene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,4-Dinitrotoluene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzenedimethanol, a,a,a',a'-Tetramethyl-1,4-	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,4-Di-tert-butylphenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Dimethyl terephthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Acenaphthene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Dibenzofuran	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Ethyl-4-ethoxybenzoate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
4-Nitrophenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Cyclododecanone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Diethyl Phthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
p-tert-Octylphenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Fluorene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
4-Chlorophenylphenylether	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
3-Nitroaniline	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
4-Nitroaniline	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Nitrosodiphenylamine (N-)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Azobenzene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
4-Bromophenylphenylether	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Hexachlorobenzene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Pentachlorophenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Phenanthrene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Anthracene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Diisobutyl phthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Dibutyl phthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Diphenyl sulfone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Hydroxymethylphenylbenzotriazole	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Fluoranthene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Pyrene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Butyl benzyl phthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Di(2-ethylhexyl)adipate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
3,3-Dichlorobenzidine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzo(a)anthracene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Di(2-ethylhexyl)phthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Chrysene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Di-n-octylphthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzo(b)fluoranthene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L



Sample Id: S-0001951852

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab (Continued)					
Benzo(k)fluoranthene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzo(a)Pyrene (PAH)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Dibenzo(a,h)anthracene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Indeno(1,2,3-cd)pyrene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzo(g,h,i)perylene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
* Tetrahydrofuran (Modified EPA 524.2)					
Tetrahydrofuran	ND(5)	ND(5)	ND(5)	ND(0.04)	ug/L
* Butanediol, 1,4- by NSF Method					
Butanediol, 1,4	ND(100)	ND(100)	ND(100)	ND(0.79)	ug/L
* Dimethyl isophthalate, LC/UV					
Dimethyl Isophthalate	ND(50)	ND(50)	ND(50)	ND(0.40)	ug/L
* Trimethyl Trimelliate, LC/UV					
Trimethyl trimelliate	ND(100)	ND(10)	ND(100)	ND(0.79)	ug/L
* Perfluorooctanoic acid by LCMS/ES-					
Perfluorooctanoic acid by LCMS/ES-	ND(20)	ND(20)	ND(20)	ND(0.16)	ng/L
Volatile Organic Compounds (Ref: EPA 524.2)					
Dichlorodifluoromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Chloromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Vinyl Chloride	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Bromomethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Chloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Trichlorofluoromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Trichlorotrifluoroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Methylene Chloride	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,1-Dichloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
trans-1,2-Dichloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,1-Dichloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
2,2-Dichloropropane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
cis-1,2-Dichloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Chloroform	4.8	0.9	3.9	0.031	ug/L
Bromochloromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,1,1-Trichloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,1-Dichloropropene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Carbon Tetrachloride	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2-Dichloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Trichloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2-Dichloropropane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Bromodichloromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Dibromomethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
cis-1,3-Dichloropropene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
trans-1,3-Dichloropropene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,1,2-Trichloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,3-Dichloropropane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Tetrachloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L



Sample Id: **S-0001951852**

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab (Continued)					
Chlorodibromomethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Chlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,1,1,2-Tetrachloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Bromoform	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,1,2,2-Tetrachloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2,3-Trichloropropane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,3-Dichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,4-Dichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2-Dichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Carbon Disulfide	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Methyl-tert-Butyl Ether (MTBE)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
tert-Butyl ethyl ether	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Methyl Ethyl Ketone	ND(5)	ND(5)	ND(5)	ND(0.04)	ug/L
Methyl Isobutyl Ketone	ND(5)	ND(5)	ND(5)	ND(0.04)	ug/L
Toluene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Ethyl Benzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
m+p-Xylenes	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
o-Xylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Styrene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Isopropylbenzene (Cumene)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
n-Propylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Bromobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
2-Chlorotoluene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
4-Chlorotoluene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,3,5-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
tert-Butylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2,4-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
sec-Butylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
p-Isopropyltoluene (Cymene)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2,3-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
n-Butylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2,4-Trichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Hexachlorobutadiene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2,3-Trichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Naphthalene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Benzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Total Trihalomethanes	4.8	0.9	3.9	0.031	ug/L
Total Xylenes	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L

Sample Id: **S-0001951854**

Description: Sample exposed at 23C and pH 5

Sampled Date: 10/21/2022

Received Date: 09/28/2022

Normalization Information:

Date exposure completed: 21-OCT-2022

Field Exposure Time: 24 hours



Sample Id: **S-0001951854**

Normalization Information:					
Calculated N1:	0.051	Lab Exposure Time:	24 hours		
Field Number of Units:	1 units	Lab Number of Units:	0.5 units	Constant N2:	0.041
Field Static Volume:	38.6 L	Lab Static Volume:	0.980 L	Misc. Factor:	1
				Calculated NFm:	1.00
Compound Reference Key: SPAC					

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab					
* Standard 61 Additives LAB SUM TEST Code					
External Note:		1 unit = 1 Wiper Ring. A total of 0.5 units exposed, in vessel.			
Metals I in water by ICPMS (Ref: EPA 200.8)					
Aluminum	ND(10)	ND(10)	ND(10)	ND(0.021)	ug/L
Arsenic	ND(1)	ND(1)	ND(1)	ND(0.002)	ug/L
Barium	ND(1)	ND(1)	ND(1)	ND(0.002)	ug/L
Beryllium	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.001)	ug/L
Bismuth	ND(1)	ND(1)	ND(1)	ND(0.002)	ug/L
Cadmium	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.0004)	ug/L
Chromium	ND(1)	ND(1)	ND(1)	ND(0.002)	ug/L
Copper	ND(1)	ND(1)	ND(1)	ND(0.002)	ug/L
Mercury	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.0004)	ug/L
Nickel	ND(1)	ND(1)	ND(1)	ND(0.002)	ug/L
Lead	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.001)	ug/L
Antimony	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.001)	ug/L
Selenium	ND(1)	ND(1)	ND(1)	ND(0.002)	ug/L
Tin	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.001)	ug/L
Strontium	ND(1)	ND(1)	ND(1)	ND(0.002)	ug/L
Thallium	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.0004)	ug/L
Zinc	ND(10)	ND(10)	ND(10)	ND(0.021)	ug/L
Silver	ND(1)	ND(1)	ND(1)	ND(0.002)	ug/L

Sample Id: **S-0001951855**

Description: Sample exposed at 23C and pH 8

Sampled Date: 10/21/2022

Received Date: 09/28/2022

Normalization Information:					
Date exposure completed:	21-OCT-2022	Calculated N1:	0.20	Field Exposure Time:	24 hours
		Lab Exposure Time:	24 hours		
Field Number of Units:	1 units	Lab Number of Units:	0.5 units	Constant N2:	0.041
Field Static Volume:	38.6 L	Lab Static Volume:	3.86 L	Misc. Factor:	1
				Calculated NFm:	1.00
Compound Reference Key: SPAC					

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab					
Polynuclear Aromatic Hydrocarbons by GCMS					
Acenaphthene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L



Sample Id: **S-0001951855**

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab (Continued)					
Acenaphthylene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Anthracene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Benzo(a)Anthracene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Benzo(a)Pyrene (PAH)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Benzo(b)Fluoranthene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Benzo(g,h,i)Perylene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Benzo(k)Fluoranthene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Chrysene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Dibenzo(a,h)Anthracene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Fluoranthene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Fluorene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Indeno(1,2,3,-c,d)Pyrene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Naphthalene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Phenanthrene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Pyrene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
* Acrylonitrile, Acetates and Acrylates by VOC GCMS					
Acrylonitrile	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Ethyl acetate	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Methyl acrylate	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Ethyl acrylate	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
tert-Butyl Acetate	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Methyl methacrylate	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Isobutyl acetate	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
n-Butyl acetate	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Butyl acrylate	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Butyl methacrylate	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Methyl Acetate	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
* Nitrosamine Analysis by GC/MS using EPA Method 521 Modified					
N-Nitrosodi-n-butylamine	0.002	0.003	ND(0.001)	ND(0.000008)	ug/L
N-Nitrosodi-n-propylamine	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.000008)	ug/L
N-Nitrosodiethylamine	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.000008)	ug/L
N-Nitrosodimethylamine	0.11	0.12	ND(0.001)	ND(0.000082)	ug/L
N-Nitrosomethylethylamine	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.000008)	ug/L
N-Nitrosomorpholine	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.000008)	ug/L
N-Nitrosopiperidine	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.000008)	ug/L
N-Nitrosopyrrolidine	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.00008)	ug/L
* Standard 61 Additives LAB SUM TEST Code					
External Note:	1 unit = 1 Wiper Ring. A total of 0.5 units exposed, in vessel.				
Metals I in water by ICPMS (Ref: EPA 200.8)					
Aluminum	ND(10)	ND(10)	ND(10)	ND(0.082)	ug/L
Arsenic	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Barium	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Beryllium	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Bismuth	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L



Sample Id: S-0001951855

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab (Continued)					
Cadmium	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Chromium	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Copper	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Mercury	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Nickel	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Lead	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Antimony	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Selenium	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Tin	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Strontium	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Thallium	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.002)	ug/L
Zinc	ND(10)	ND(10)	ND(10)	ND(0.082)	ug/L
Silver	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
Dihexyl phthalate (DHP) by GC/MS BNA 625					
Dihexyl phthalate	ND(4)	ND(4)	ND(4)	ND(0.03)	ug/L
Diisodecyl phthalate (DIDP) by GC/MS BNA 625 SIM					
Diisodecyl phthalate	ND(4)	ND(4)	ND(4)	ND(0.03)	ug/L
Diisononyl phthalate (DINP) by GC/MS BNA 625 SIM					
Diisononyl phthalate	ND(4)	ND(4)	ND(4)	ND(0.03)	ug/L
Diisooctyl phthalate (DIOP) by GC/MS BNA 625 SIM					
Diisooctyl phthalate	ND(4)	ND(4)	ND(4)	ND(0.03)	ug/L
BASE/NEUTRAL/ACID EPA METHOD 625 Scan for Tentatively Identified Compour					
O cmpd MW>229	4	Complete	4	0.03	ug/L
Scan Control Complete	TRUE				
Semivolatle Compounds, Base/Neutral/Acid Target 625, Data Workup					
Pyridine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Nitrosodimethylamine (N-)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Nitrosomethylethylamine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
5-Methyl-2-hexanone (MIAK)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1-Methoxy-2-propanol acetate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Heptanone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Cyclohexanone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Nitrosodiethylamine (N-)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Isobutylisobutyrate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Aniline	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Phenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Di(chloroethyl) ether	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Chlorophenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,3-Benzofuran	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1,3-Dichlorobenzene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1,4-Dichlorobenzene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
3-Cyclohexene-1-carbonitrile	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Ethylhexanol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzyl alcohol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L



Sample Id: S-0001951855

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab (Continued)					
1,2-Dichlorobenzene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
bis(2-Chloroisopropyl)ether	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Methylphenol (o-Cresol)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Methylaniline	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Acetophenone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Nitrosodi-n-propylamine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Nitrosopyrrolidine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
3- and 4-Methylphenol (m&p-Cresol)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Hexachloroethane	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Phenyl-2-propanol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Nitrosomorpholine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Nitrobenzene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,6-Dimethylphenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Vinylpyrrolidinone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Nitrosopiperidine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Triethylphosphate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Isophorone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Nitrophenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,4-Dimethylphenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
bis(2-Chloroethoxy)methane	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,4-Dichlorophenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Trichlorobenzene (1,2,4-)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Naphthalene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
4-Chloroaniline	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1,1,3,3,-Tetramethyl-2-thiourea	ND(4)	ND(4)	ND(4)	ND(0.03)	ug/L
Hexachlorobutadiene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzothiazole	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
N-Nitrosodi-n-butylamine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
4-Chloro-3-methylphenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
p-tert-Butylphenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Ethylhexyl glycidyl ether	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,6-Di-t-butyl-4-methylphenol(BHT)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Methylnaphthalene, 2-	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Cyclododecane	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,4,5-Trichlorophenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,4,6-trichlorophenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1(3H)-Isobenzofuranone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Chloronaphthalene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2-Nitroaniline	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1,1'-(1,3-Phenylene)bis ethanone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,6-Di-tert-butylphenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Dimethylphthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
1,1'-(1,4-Phenylene)bis ethanone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Acenaphthylene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L



Sample Id: S-0001951855

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab (Continued)					
Benzenedimethanol, a,a,a',a'-tetramethyl-1,3-	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,6-Dinitrotoluene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,4-Dinitrotoluene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzenedimethanol, a,a,a',a'-Tetramethyl-1,4-	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
2,4-Di-tert-butylphenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Dimethyl terephthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Acenaphthene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Dibenzofuran	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Ethyl-4-ethoxybenzoate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
4-Nitrophenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Cyclododecanone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Diethyl Phthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
p-tert-Octylphenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Fluorene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
4-Chlorophenylphenylether	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
3-Nitroaniline	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
4-Nitroaniline	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Nitrosodiphenylamine (N-)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Azobenzene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
4-Bromophenylphenylether	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Hexachlorobenzene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Pentachlorophenol	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Phenanthrene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Anthracene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Diisobutyl phthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Dibutyl phthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Diphenyl sulfone	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Hydroxymethylphenylbenzotriazole	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Fluoranthene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Pyrene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Butyl benzyl phthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Di(2-ethylhexyl)adipate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
3,3-Dichlorobenzidine	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzo(a)anthracene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Di(2-ethylhexyl)phthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Chrysene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Di-n-octylphthalate	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzo(b)fluoranthene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzo(k)fluoranthene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzo(a)Pyrene (PAH)	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Dibenzo(a,h)anthracene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Indeno(1,2,3-cd)pyrene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
Benzo(g,h,i)perylene	ND(2)	ND(2)	ND(2)	ND(0.02)	ug/L
* 1,3-Butadiene (Modified EPA 524.2)					



Sample Id: S-0001951855

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab (Continued)					
1,3-Butadiene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Di(n-propyl heptyl) phthalate (DPHP) by GC/MS BNA 625					
Di(n-propyl heptyl) phthalate	ND(4)	ND(4)	ND(4)	ND(0.03)	ug/L
* Bis(2-ethylhexyl)terephthalate, micro (N), GC/ECD					
Bis(2-ethylhexyl)terephthalate	ND(10)	ND(10)	ND(10)	ND(0.082)	ug/L
Volatile Organic Compounds (Ref: EPA 524.2)					
Dichlorodifluoromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Chloromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Vinyl Chloride	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Bromomethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Chloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Trichlorofluoromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Trichlorotrifluoroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Methylene Chloride	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,1-Dichloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
trans-1,2-Dichloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,1-Dichloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
2,2-Dichloropropane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
cis-1,2-Dichloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Chloroform	0.9	0.9	ND(0.5)	ND(0.004)	ug/L
Bromochloromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,1,1-Trichloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,1-Dichloropropene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Carbon Tetrachloride	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2-Dichloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Trichloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2-Dichloropropane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Bromodichloromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Dibromomethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
cis-1,3-Dichloropropene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
trans-1,3-Dichloropropene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,1,2-Trichloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,3-Dichloropropane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Tetrachloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Chlorodibromomethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Chlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,1,1,2-Tetrachloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Bromoform	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,1,2,2-Tetrachloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2,3-Trichloropropane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,3-Dichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,4-Dichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2-Dichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Carbon Disulfide	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L



Sample Id: **S-0001951855**

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab (Continued)					
Methyl-tert-Butyl Ether (MTBE)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
tert-Butyl ethyl ether	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Methyl Ethyl Ketone	ND(5)	ND(5)	ND(5)	ND(0.04)	ug/L
Methyl Isobutyl Ketone	ND(5)	ND(5)	ND(5)	ND(0.04)	ug/L
Toluene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Ethyl Benzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
m+p-Xylenes	ND(1)	ND(1)	ND(1)	ND(0.008)	ug/L
o-Xylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Styrene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Isopropylbenzene (Cumene)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
n-Propylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Bromobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
2-Chlorotoluene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
4-Chlorotoluene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,3,5-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
tert-Butylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2,4-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
sec-Butylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
p-Isopropyltoluene (Cymene)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2,3-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
n-Butylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2,4-Trichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Hexachlorobutadiene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
1,2,3-Trichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Naphthalene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Benzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L
Total Trihalomethanes	0.9	0.9	ND(0.5)	ND(0.004)	ug/L
Total Xylenes	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.004)	ug/L

Sample Id: **S-0001951857**
 Description: U25-7.25 wiper ring
 Sampled Date: 09/28/2022
 Received Date: 09/28/2022

Normalization Information:

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab					
Material Screening for Lead by XRF					
Lead content verification	Pass				

Sample Id: **S-0001962124**
 Description: Sample exposed at 23C and pH 8
 Sampled Date: 04/28/2023
 Received Date: 11/10/2022

Normalization Information:



Sample Id: **S-0001962124**

Normalization Information:

Date exposure completed:	28-APR-2023	Calculated N1:	0.19	Field Exposure Time:	24 hours	Lab Exposure Time:	24 hours
Field Number of Units:	1 units	Lab Number of Units:	1 units	Constant N2:	0.041	Misc. Factor:	1
Field Static Volume:	38.6 L	Lab Static Volume:	7.34 L				
				Calculated NFm:	1.00		

Compound Reference Key: SPAC

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Ann Arbor Chemistry Lab					
2,4-Dichlorobenzoic acid					
2,4-Dichlorobenzoic acid	210	ND(4)	210	1.6	ug/L
* Standard 61 Additives LAB SUM TEST Code					
External Note:	1 unit = 1 Red Hose and 1 White Hose. A total of 1 unit exposed, in vessel.				



Job Notes:

These laboratory results indicate compliance to NSF/ANSI Standard 61. This resolves the non-compliance identified under PSF #A-00352579.



Testing Laboratories:

All work performed at:	----- Id ----- → NSF_AA	Address ----- NSF 789 N. Dixboro Road Ann Arbor MI 48105
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References to Testing Procedures:

NSF Reference	Parameter / Test Description
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C0280	2,4-Dichlorobenzoic acid
C0314	Polynuclear Aromatic Hydrocarbons by GCMS
C0513	Material Screening for Lead by XRF
C0743	* Acrylonitrile, Acetates and Acrylates by VOC GCMS
C0989	* Nitrosamine Analysis by GC/MS using EPA Method 521 Modified
C1031	* Standard 61 Additives LAB SUM TEST Code
C1182	Metals I in water by ICPMS (Ref: EPA 200.8)
C2002	Dihexyl phthalate (DHP) by GC/MS BNA 625
C2003	Diisodecyl phthalate (DIDP) by GC/MS BNA 625 SIM
C2004	Diisononyl phthalate (DINP) by GC/MS BNA 625 SIM
C2005	Diisooctyl phthalate (DIOP) by GC/MS BNA 625 SIM
C2023	BASE/NEUTRAL/ACID EPA METHOD 625 Scan for Tentatively Identified Compounds (TICs)
C2024	Semivolatile Compounds, Base/Neutral/Acid Target 625, Data Workup
C3369	* 1,3-Butadiene (Modified EPA 524.2)
C3371	* Tetrahydrofuran (Modified EPA 524.2)
C3390	Di(n-propyl heptyl) phthalate (DPHP) by GC/MS BNA 625
C4054	* Bis(2-ethylhexyl)terephthalate, micro (N), GC/ECD
C4064	* Butanediol, 1,4- by NSF Method
C4128	* Dimethyl isophthalate, LC/UV
C4383	* Trimethyl Trimelliate, LC/UV
C4656	* Perfluorooctanoic acid by LCMS/ES-
C4662	Volatile Organic Compounds (Ref: EPA 524.2)

Test descriptions preceded by an asterisk "*" indicate that testing has been performed per NSF requirements but is not within its scope of accreditation.

Unless otherwise indicated, method uncertainties are not applied in any determinations of conformity. Testing utilizes the requested sections of any referenced standards, which may not be the entire standard.

Dates of Laboratory Activity: 29-SEP-2022 to 16-MAY-2023