National Aeronautics and
Space Administration

Goddard Space Flight Center
Greenbelt, Maryland
20771

Reply to Attn of: 250 March 31, 2020

Mr. Todd Gentry
Washington Suburban Sanitary Commission
14501 Sweitzer Lane, 11th Floor
Laurel, MD 20707-5902

Dear Mr. Gentry:

NASA's Goddard Space Flight Center (GSFC) is submitting the second quarter Industrial Discharge Periodic Compliance Report (PCR) electronically. Effective March 18, 2020, GSFC moved into mandatory telework status with physical access approved only for those who support mission-critical activities. A paper copy of this report will be submitted when possible.

GSFC performed quarterly monitoring at Monitoring Point FAC on January 21 and 22, 2020, and at the building 5 electroplating facility (Monitoring Point 001) on January 14 and 15, 2020. No sampling took place at the Detector Development Laboratory (DDL) (Monitoring Point 002) for first quarter 2020 based on the agreement between the Washington Suburban Sanitary Commission and GSFC, dated February 14, 2020.

The quarterly PCR and supporting documentation, Monitoring Point 001 Total Toxic Organic (TTO) certification, and Building 5 Cyanide Discharge Metal Finishing Certification Statement are enclosed. If you have any questions concerning this report, please contact Ms. Lori Levine at Lori.M.Levine@nasa.gov.

Sincerely,

KIMBERLY FINCH Digitally signed by KIMBERLY FINCH
Date: 2020.03.24 11:48:58 -04'00'

Kimberly Finch, P.E.
Chief, Medical and Environmental Management Division

WSSCWATER
DELIVERING THE ESSENTIAL

INDUSTRIAL DISCHARGE CONTROL PROGRAM
PERIODIC COMPLIANCE REPORT

Complete the following information; incomplete reports will be addressed with enforcement action. Attach laboratory data with Minimum Laboratory Reporting Requirements (Section II.D. of your WSSC Permit) and applicable certification statements.

Industrial User	NASA/Goddard Space Flight Center			Outfall	FAC	Permit Number	00449
Reporting Period	Year: 2020	Quarter: (Check One)	January Thru March ☒	April Thru June ☐	July Thru September ☐	October Thru December ☐	
Monitoring Point Name: FAC(A)	Monitoring Point Description	WSSC manhole labeled "WSSC IWMP" inside the front gate.					
Sampler's Name	Hayley Thomas, Ashley Cherok and Lauren Wicklund	Name of Company Performing Sampling	DDC 4C				

Are all results compliant with effluent limits? Yes ☒ No ☐

If **No**, are additional operation and maintenance and/or additional pretreatment required for you to meet the pretreatment standards and requirements? Yes ☐ No ☐

Parameter	Effluent Limit (mg/l) Daily(1)	Indicate Sample Date and Results in mg/l for Each Parameter					Analytical Method	No. of Results Over Limit	Violations (WSSC Use Only)
		1/20/20	1/21/20	1/22/20	1/23/20				
Arsenic (T)	0.28	----------	<0.001	<0.001	----------		EPA 200.8	0	
Cadmium (T)	0.10	----------	<0.001	<0.001	----------		EPA 200.8	0	
Chromium (T)	7.0	----------	<0.001	<0.001	----------		EPA 200.8	0	
Copper (T)	2.0	----------	0.0670	0.0503	----------		EPA 200.8	0	
Lead (T)	0.35	----------	0.0012	<0.001	----------		EPA 200.8	0	
Molybdenum (T)	0.35	----------	0.0021	0.0013	----------		EPA 200.8	0	
Nickel (T)	3.4	----------	0.0239	0.0046	----------		EPA 200.8	0	
Selenium (T)	0.40	----------	<0.001	<0.001	----------		EPA 200.8	0	
Silver (T)	0.50	----------	<0.001	<0.001	----------		EPA 200.8	0	
Zinc (T)	4.2	----------	0.107	0.0795	----------		EPA 200.8	0	
Cyanide (T)	0.40	----------	<0.010	<0.010	----------		SM 4500-CN C,E - 2011	0	
Total Phosphorus	8.0	----------	5.8	6.9	----------		EPA 365.3	0	
Ammonia (NH3)	190	----------	34	63	----------		SM 4500-NH3-F-2011	0	

Industry Comment/Changes/Notifications:

Numeric values must be submitted for all analyses. If values are below detection limit, indicate the numeric detection limit.

For WSSC Use Only

Report is: ☐ On Time ☐ _____ Days Late ☐ Incomplete

Violations reported within 24-hours of discovery? ☐ Yes ☐ No ☐ N/A

Violations resampled within 30 days? ☐ Yes ☐ No ☐ N/A

Compliance ☐ Yes ☐ No

Comments:

INDUSTRIAL DISCHARGE CONTROL PROGRAM
PERIODIC COMPLIANCE REPORT

Reviewed by (Print Name):	Date:
Data Entered by (Print Name):	Date:

Industrial User	NASA/Goddard Space Flight Center				Outfall	FAC	Permit Number	00449
Reporting Period	Year: 2020	Quarter: (Check One)	January Thru March ☒	April Thru June ☐	July Thru September ☐	October Thru December ☐		

FAC(A) Sample Information (Continued)

Parameter	Effluent Limit (mg/l) Daily(1)	Indicate Sample Date and Results in mg/l for Each Parameter					Analytical Method	No. of Results Over Limit	Violations (WSSC Use Only)
		1/20/20	1/21/20	1/22/20	1/23/20				
BOD	3,000	----------	94.8	110	----------		SM 5210B-2011	0	
pH Minimum(2)	6.0 standard units	7.0	6.6	7.0	6.9		EPA 150.2	0	
pH Maximum(2)	10.0 standard units	7.9	8.7	8.7	7.9		EPA 150.2	0	
Total Composite Volume		----------	14 liters	10 liters	----------		N/A	0	
Flow (gpd)(1)		38,544(3)	137,663	105,578	28,712(4)		Estimated	N/A	
Time: Start:		14:23	00:01	00:01	----------		N/A	N/A	
Stop:		----------	23:59	23:59	8:45		N/A	N/A	

Numeric values must be submitted for all analyses. If values are below detection limit, indicate the numeric detection limit.

(1) Daily Maximum
(2) Report all pH standard unit readings to one decimal place.
(3) This total represents a partial day of data and is not an accurate representation of flow rates for a 24-hour period. This flow is the total from 9 hours and 37 minutes of monitoring (14:23 through 00:00).
(4) ***This total represents a partial day of data and is not an accurate representation of flow rates for a 24-hour period. This flow is the total from 8 hours and 44 minutes of monitoring (00:01 through 08:45).***

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INDUSTRIAL DISCHARGE CONTROL PROGRAM
PERIODIC COMPLIANCE REPORT

Industrial User	NASA/Goddard Space Flight Center	Outfall	001	Permit Number	00449

Reporting Period	Year: 2020	Quarter: (Check One)	January Thru March ☒	April Thru June ☐	July Thru September ☐	October Thru December ☐

Monitoring Point Name	001	Monitoring Point Description	The red spigot located on the effluent pipe of the metal plating pretreatment system located in the building 5 electroplating facility and labeled "WSSC IWMP".

Sampler's Name	Hayley Thomas, Harry Stein and Leo Hrybyk	Name of Company Performing Sampling	DDC 4C

Are all results compliant with effluent limits? Yes ☒ No ☐

If **No**, are additional operation and maintenance and/or additional pretreatment required for you to meet the pretreatment standards and requirements? Yes ☐ No ☐

Parameter	Effluent Limit (mg/l) Daily(1) Monthly(2)	Indicate Sample Date and Results in mg/l for Each Parameter		Analytical Method	No. of Results Over Limit	Violations (WSSC Use Only)
		1/14/20	1/15/20			
Cadmium (T)	0.11 - 0.07	0.0016	0.0016	EPA 200.8	0	
Chromium (T)	2.77 - 1.71	0.902	1.030	EPA 200.8	0	
Copper (T)	3.38 - 2.07	0.233	0.243	EPA 200.8	0	
Lead (T)	0.69 - 0.43	0.0904	0.0849	EPA 200.8	0	
Nickel (T)	3.98 - 2.38	0.456	0.546	EPA 200.8	0	
Silver (T)	0.43 - 0.24	0.019	0.0252	EPA 200.8	0	
Zinc (T)	2.61 - 1.48	0.695	0.776	EPA 200.8	0	
Cyanide (T)	1.20 - 0.65	<0.010	0.011	SM 4500-CN C,E - 2011	0	
TTO(3)	2.13	----------	----------			
Flow (gpd)(1)		56.5	64.1	Estimated		
Time: Start:		9:41	9:25	N/A		
Stop:		9:45	9:29	N/A		

Industry Comment/Changes/Notifications:

Numeric values must be submitted for all analyses. If values are below detection limit, indicate the numeric detection

(1) Daily Maximum

(2) Monthly Average

(3) The term TTO shall mean total toxic organics, which is the summation of all quantifiable values greater than 0.01 milligrams per liter for the toxic organics listed in Attachment 1 (40 CFR 433.11(e)).

(4) Report all pH standard unit readings to one decimal place.

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INDUSTRIAL DISCHARGE CONTROL PROGRAM
PERIODIC COMPLIANCE REPORT

Industrial User	NASA/Goddard Space Flight Center			Outfall	002	Permit Number	00449
Reporting Period	Year: 2020	Quarter: (Check One)	January Thru March ☒	April Thru June ☐	July Thru September ☐	October Thru December ☐	
Monitoring Point Name 002	Monitoring Point Description	"WSSC IWMP" on the effluent line of the pretreatment system in the basement of building 30					
Sampler's Name		Name of Company Performing Sampling	DDC 4C				

Are all results compliant with effluent limits? Yes ☐ No ☐

If **No**, are additional operation and maintenance and/or additional pretreatment required for you to meet the pretreatment standards and requirements? Yes ☐ No ☐

Parameter	Effluent Limit (mg/l) Daily(1)	Indicate Sample Date and Results in mg/l for Each Parameter					Analytical Method	No. of Results Over Limit	Violations (WSSC Use Only)
		/ /	/ /	/ /	/ /	/ /			
TTO-CAT(2)	1.31(3)								
Total Composite Volume									
Flow (gpd)									
Time: Start:									
Stop:									

Industry Comment/Changes/Notifications:

No sampling took place at Monitoring Point 002 for first quarter 2020 based on the agreement reached between the Washington Suburban Sanitary Commission (WSSC Water) and NASA/Goddard Space Flight Center (NASA/GSFC) during a conference call which took place at 0930 on February 13, 2020, with written email confirmation received February 14, 2020.

Numeric values must be submitted for all analyses. If values are below detection limit, indicate the numeric detection limit.

(1) Daily Maximum
(2) The pollutants regulated by TTO-CAT are listed in Attachment 2.
(3) The categorical daily maximum TTO limit in 40 CFR 469.18 is 1.37 mg/l. However, this IWMP receives categorical process flow (3,000 gpd) and a dilution waste stream flow (125 gpd), therefore, the combined wastestream formula [§§403.6(e)] is used to calculate the alternative limit of 1.31 mg/l. The sum of all quantifiable values greater than 0.01 milligrams per liter for the categorically regulated pollutants shall not exceed 1.31 mg/l for any one (1) day.
(4) Report all pH standard unit readings to one decimal place.

INDUSTRIAL DISCHARGE CONTROL PROGRAM
PERIODIC COMPLIANCE REPORT

GREASE TRAP AND OIL/WATER SEPARATOR SERVICE LOG

Industrial User	NASA/Goddard Space Flight Center					Permit Number	00449
Reporting Period	Year: 2020	Quarter: (Check One)	January Thru March ☒	April Thru June ☐	July Thru September ☐	October Thru December ☐	

Building	Number Of Tanks/ Volume	System Type (GT, O/W, GRD, INT)	Location	Cleaning Frequency	Cleaning/Pump Out Dates	Waste Hauler	Waste Disposal Location
27	1 tank/ 250 gallons	O/W	Room 170	Biannually	12/24/2019 01/07/2020	Triumvirate Environmental (Baltimore, MD) EPA # MDD093002384	Liquids: FCC Environmental (Wilmington, DE) Solids: Modern Landfill (York, PA) EPA # TXR000078094
95*	1 tank/ 500 gallons	O/W	Behind building	Once per calendar year	12/15/2016	ACE Environmental Services, LLC (Baltimore, MD) EPA # MDR000507780	Environmental Recovery Corporation (Lancaster , PA) EPA # PAD987266749
21**	1 tank/ 35 gallons 1 tank/ 83 gallons 3 tanks/ 15 gallons	GT	Cafeteria	Inspected monthly, cleaned as needed	**Cleaned**: 1/31/20 2/25/20	Atlantic Wastewater Solutions LLC (Gambrills, MD) WSSC Permit #Z-421 PG Co. Health Dept permit #56398-2019-0 Expires 12/31/20	District of Columbia Water and Sewer Authority (Washington, DC) Blue Plains Advanced Wastewater Treatment Plant NPDES Permit DC0021199
33**	1 tank/ 45 gallons	GT	Café	Inspected monthly, cleaned as needed	**Cleaned**: 1/31/20 2/25/20	Atlantic Wastewater Solutions LLC (Gambrills, MD) WSSC Permit #Z-421 PG Co. Health Dept permit #56398-2019-0 Expires 12/31/20	District of Columbia Water and Sewer Authority (Washington, DC) Blue Plains Advanced Wastewater Treatment Plant NPDES Permit DC0021199
1**	1 tank/ 30 gallons 1 tank/ 45 gallons	GT	Cafeteria	Inspected monthly, cleaned as needed	**Cleaned**: 1/31/20 2/25/20	Atlantic Wastewater Solutions LLC (Gambrills, MD) WSSC Permit #Z-421 PG Co. Health Dept permit #56398-2019-0 Expires 12/31/20	District of Columbia Water and Sewer Authority (Washington, DC) Blue Plains Advanced Wastewater Treatment Plant NPDES Permit DC0021199

LEGEND

GT – Grease Trap
O/W – Oil/Water Separator
GRD – Grease Removal Device (i.e. RENN, GK&L, etc.)
INT – Grease Interceptor

*Building 95 (Auto Club) is inactive

**Buildings 21, 33, and 1 Cafeterias closed in March before the scheduled clean out. The clean out of grease traps will resume after reopening.

INDUSTRIAL DISCHARGE CONTROL PROGRAM
PERIODIC COMPLIANCE REPORT

I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		
Authorized Representative Printed Name	Authorized Representative Signature	Date
Kimberly Finch	KIMBERLY FINCH Digitally signed by KIMBERLY FINCH Date: 2020.03.24 11:52:43 -04'00'	03/24/2020

MAIL COMPLETED REPORT TO: Washington Suburban Sanitary Commission
Regulatory Services Division
Industrial Discharge Control Section
14501 Sweitzer Lane, 11th Floor
Laurel, MD 20707-5902

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INDUSTRIAL DISCHARGE CONTROL PROGRAM

PERIODIC CERTIFICATION STATEMENT
BUILDING 5 CYANIDE DISCHARGE METAL FINISHING

I, Kimberly Finch (PRINTED NAME), Chief, Medical and Environmental Management Division (TITLE) am the Authorized Representative for NASA Goddard Space Flight Center (INDUSTRY NAME).

Based on my inquiry of the person(s) directly responsible for managing compliance with environmental regulations, I certify that, to the best of my knowledge and belief, cyanide laden waste(s) from any metal finishing operations were managed as follows:

- ☐ Containerized and evaporated
- ☐ Containerized and hauled off-site for disposal (If hauled, include a copied manifest)
- ☐ Reclaimed and reused
- ☒ Other Cyanide waste was not generated during this quarter.

-and -

not discharged to the Washington Suburban Sanitary Commission's sewer system during this reporting period (January - March (REPORTING PERIOD) / 2020 (YEAR)).

I further certify under penalty of perjury and law that this document and all attachments (if any) were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

KIMBERLY FINCH Digitally signed by KIMBERLY FINCH Date: 2020.03.24 11:53:23 -04'00' / 03/24/2020

SIGNATURE OF AUTHORIZED REPRESENTATIVE / DATE

This statement shall be signed at the end of the reporting period and submitted by April 7, July 7, October 7, and January 7 of each year.

Please mail or deliver this statement to:

Washington Suburban Sanitary Commission
Regulatory Services Division
Industrial Discharge Control Section
14501 Sweitzer Lane, 11th Floor
Laurel, MD 20707

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DELIVERING THE ESSENTIAL

INDUSTRIAL DISCHARGE CONTROL PROGRAM

PERIODIC CERTIFICATION STATEMENT
BUILDING 5 TOTAL TOXIC ORGANICS METAL FINISHING

I, Kimberly Finch (PRINTED NAME), Chief, Medical and Environmental Management Division (TITLE) am the Authorized Representative for NASA Goddard Space Flight Center (INDUSTRY NAME).

Based on my inquiry of the per son(s) directly responsible for managing compliance with the permit limitations for Total Toxic Organics (TTOs), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last monitoring report. I further certify that this facility is implementing a Toxic Organic Management Plan (TOMP) during this reporting period (January - March (REPORTING PERIOD) / 2020 (YEAR)).

I further certify under penalty of perjury and law that this document and all attachments (if any) were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

KIMBERLY FINCH Digitally signed by KIMBERLY FINCH Date: 2020.03.24 11:54:09 -04'00' / 03/24/2020

SIGNATURE OF AUTHORIZED REPRESENTATIVE / DATE

This statement shall be signed at the end of the reporting period and submitted by April 7, July 7, October 7, and January 7 of each year.

Please mail or deliver this statement to:

Washington Suburban Sanitary Commission
Regulatory Services Division
Industrial Discharge Control Section
14501 Sweitzer Lane, 11th Floor
Laurel, MD 20707

Attachment 1
Total Toxic Organic Pollutants
40 CFR 433.11(e)

Acenaphthene	Methyl bromide (bromomethane)
Acrolein	Bromoform (tribromomethane)
Acrylonitrile	Dichlorobromomethane
Benzene	Chlorodibromomethane
Benzidine	Hexachlorobutadiene
Carbon tetrachloride	Hexachlorocyclopentadiene
Chlorobenzene	Isophorone
1,2,4-Trichlorobenzene	Naphthalene
Hexachlorobenzene	Nitrobenzene
1,2-Dichloroethane	2-Nitrophenol
1,1,1-Trichloroethane	4-Nitrophenol
Hexachloroethane	2,4-Dinitrophenol
1,1-Dichloroethane	4,6-Dinitro-o-cresol
1,1,2-Trichloroethane	N-nitrosodimethylamine
1,1,2,2-Tetrachloroethane	N-nitrosodiphenylamine
Chloroethane	N-nitrosodi-n-propylamine
Bis (2-chloroethyl) ether	Pentachlorophenol
2-Chloroethyl vinyl ether (mixed)	Phenol
2-Chloronaphthalene	Bis (2-ethylhexyl) phthalate
2,4,6-Trichlorophenol	Butyl benzyl phthalate
Parachlorometacresol	Di-n-butyl phthalate
Chloroform	Di-n-octyl phthalate
2-Chlorophenol	Diethyl phthalate
1,2-Dichlorobenzene	Dimethyl phthalate
1,3-Dichlorobenzene	1,2-Benzanthracene
1,4-Dichlorobenzene	Benzo(a)pyrene(3,4-benzopyrene)
3,3-Dichlorobenzidine	3,4-Benzofluoranthene
1,1-Dichloroethylene	11,12-Benzofluoranthene
1,2-Trans-dichloroethylene	Chrysene
2,4-Dichlorophenol	Acenaphthylene
1,2-Dichloropropane	Anthracene
1,3-Dichloropropylene	1,12-Benzoperylene
2,4-Dimethylphenol	Fluorene
2,4-Dinitrotoluene	Phenanthrene
2,6-Dinitrotoluene	1,2,5,6-Dibenzanthracene
1,2-Diphenylhydrazine	Indeno (1,2,3-cd) pyrene (2,3-(o-phenylene) pyrene)
Ethylbenzene	Pyrene
Fluoranthene	Tetrachloroethylene
4-Chlorophenyl phenyl ether	Toluene
4-Bromophenyl phenyl ether	Trichloroethylene
Bis (2-chloroisopropyl) ether	Vinyl chloride
Bis (2-chloroethoxy) methane	Aldrin
Methylene chloride (dichloromethane)	Dieldrin
Methyl chloride (chloromethane)	Chlordane
Alpha-endosulfan	4,4-DDD (p,p-TDE)
Beta-endosulfan	4,4-DDE (p,p-DDX)
Endosulfan sulfate	4,4-DDT
Endrin	Heptachlor
Endrin Aldehyde	Heptachlor epoxide
Toxaphene	2,3,7,8-Tetrachlorodibenzo-p- dioxin (TCDD)
Alpha-BHC	Beta-BHC
Gamma-BHC	Delta-BHC
PCB-1242 (Arochlor 1242)	PCB-1254 (Arochlor 1254)
PCB-1221 (Arochlor 1221)	PCB-1232 (Arochlor 1232)
PCB-1248 (Arochlor 1248)	PCB-1260 (Arochlor 1260)
PCB-1016 (Arochlor 1016)	

Attachment 2
Total Toxic Organic Pollutants
40 CFR 469.12(a)

VOLATILE ORGANICS	BASE NEUTRALS ACID
Carbon tetrachloride	Anthracene
Chloroform	Bis(2-ethylhexyl)phthalate
1,2 Dichlorobenzene	Butyl benzyl phthalate
1,3 Dichlorobenzene	2 Chlorophenol
1,4 Dichlorobenzene	2,4 Dichlorophenol
Dichlorobromomethane	Di-n-butyl phthalate
1,2 Dichloroethane	1,2 Diphenylhydrazine
1,1 Dichloroethylene	Isophorone
Ethylbenzene	Naphthalene
Methylene Chloride	2 Nitrophenol
Tetrachloroethylene	4 Nitrophenol
1,1,1 Trichloroethane	Pentachlorophenol
1,1,2 Trichloroethane	Phenol
Trichloroethylene	1,2,4 Trichlorobenzene
Toluene	2,4,6 Trichlorophenol

```
                Insight For Windows: Version: 5.10.6
==================================================================
                           Program settings
Site Id:            20200121
------------------------------------------------------------------
Program settings

PGM:
900MAX VERSION: 7.64

SITE ID:           20200121
LEVEL SENSOR:    SUBMERGED XDUCER
  TYPE:             0-10 FT
  CAL OFFSET:           406
  CAL GAIN:           6.991  /cm
  USER OFFSET:         0.00 cm
NUMBER OF BOTTLES:        2
BOTTLE VOLUME:        10.00 gal
INTAKE TUBE LENGTH:      12 ft
INTAKE TUBE TYPE:      3/8" VINYL
  FIRST:        IMMEDIATELY
TIMED BOTTLE SETS:
  TIME INTERVAL:00:00
  BOTTLES PER SET:        1
  CONTINUOUS MODE:       ON
LIQUID SENSORS:          ON
SAMPLE VOLUME:          100 ml
INTAKE RINSES:            0
SAMPLE RETRIES:           3
SITE ID:           20200121
FLOW METER:
FLOW UNITS:             gpm
TOTAL FLOW UNITS:       gal
LEVEL UNITS:            in.
MANNING EQUATION
  SHAPE:    U-SHAPE CHANNEL
  WIDTH:              11.00 in.
  SLOPE:            0.00500
  ROUGHNESS:         0.0170
SCREEN SAVER MODE:      OFF
LOADED PROGRAM:           1
RS232 BAUD RATE:      19200
DAYS TO LOG:            9.0
INSTALLED MEMORY:       128K
EXTENDED POWER:         OFF

--INPUT------UNITS-LOGGING--INTV-
PROC.TEMP    F       OFF
pH           pH       ON     1min
FLOW         gpm      ON     5min
LEVEL        in.      ON     5min
VELOCITY    fps      OFF
CAB.TEMP.    C       OFF
MEMORY MODE:          SLATE
THERMAL CALIBRATE
  AT:       15:46 13-JAN-20
pH CALIBRATION
  AT:       14:22 20-JAN-20
PGM CMPLT OUTPUT
  DISABLED
SPECIAL OUTPUT:
  DISABLED
UPSET SAMPLING:
```

DISABLED

DONE

```
=====================================================================
                      Day Report - 20/JAN/20
                              Monday
Site Id:            20200121
---------------------------------------------------------------------
                         pH/ORP    Level   Flow 1
                           (pH)    (in.)    (gpm)

Minimum:                   7.03    1.936   46.296
                          00:00    14:30    14:30

Maximum:                  10.07*   3.473  148.173
                          14:25    15:20    15:20

Average:                   ----    2.303   66.456

Total Flow1:           3854.443 (gal) x10

*This pH is a pH check, not sanitary. The highest pH was 7.93 at 15:10 on
01/20/2020.
=====================================================================

=====================================================================
                      Day Report - 21/JAN/20
                              Tuesday
Site Id:            20200121
---------------------------------------------------------------------
                         pH/ORP    Level   Flow 1
                           (pH)    (in.)    (gpm)

Minimum:                   6.64    1.996   49.278
                          05:50    23:20    23:20

Maximum:                  10.01*   5.167  307.885
                          12:22    11:55    11:55

Average:                   ----    2.729   95.599

Total Flow1:          13766.310 (gal) x10

*This pH is a pH check, not sanitary. The highest pH was 8.79 at 16:00 on
01/21/2020.
=====================================================================


=====================================================================
                      Day Report - 22/JAN/20
                             Wednesday
Site Id:            20200121
---------------------------------------------------------------------
                         pH/ORP    Level   Flow 1
                           (pH)    (in.)    (gpm)

Minimum:                   7.02    1.531   28.561
                          05:09    21:10    21:10

Maximum:                  10.04*   3.701  167.285
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                          11:54    09:50    09:50

Average:                   ----    2.380   73.318

Total Flow1:          10557.763 (gal) x10

*This pH is a pH check, not sanitary. The highest pH was 8.75 at 15:56 on
01/22/2020.
=====================================================================


=====================================================================
                      Day Report - 23/JAN/20
                             Thursday
Site Id:            20200121
---------------------------------------------------------------------
                         pH/ORP    Level   Flow 1
                           (pH)    (in.)    (gpm)

Minimum:                    6.94    1.539   28.872
                           01:56    00:05    00:05

Maximum:                   10.03*   2.807   97.841
                           08:38    07:10    07:10

Average:                   ----    2.074   54.689

Total Flow1:           2871.188 (gal) x10

*This pH is a pH check, not sanitary. The highest pH was 7.92 at 08:16 on
01/23/2020.
```
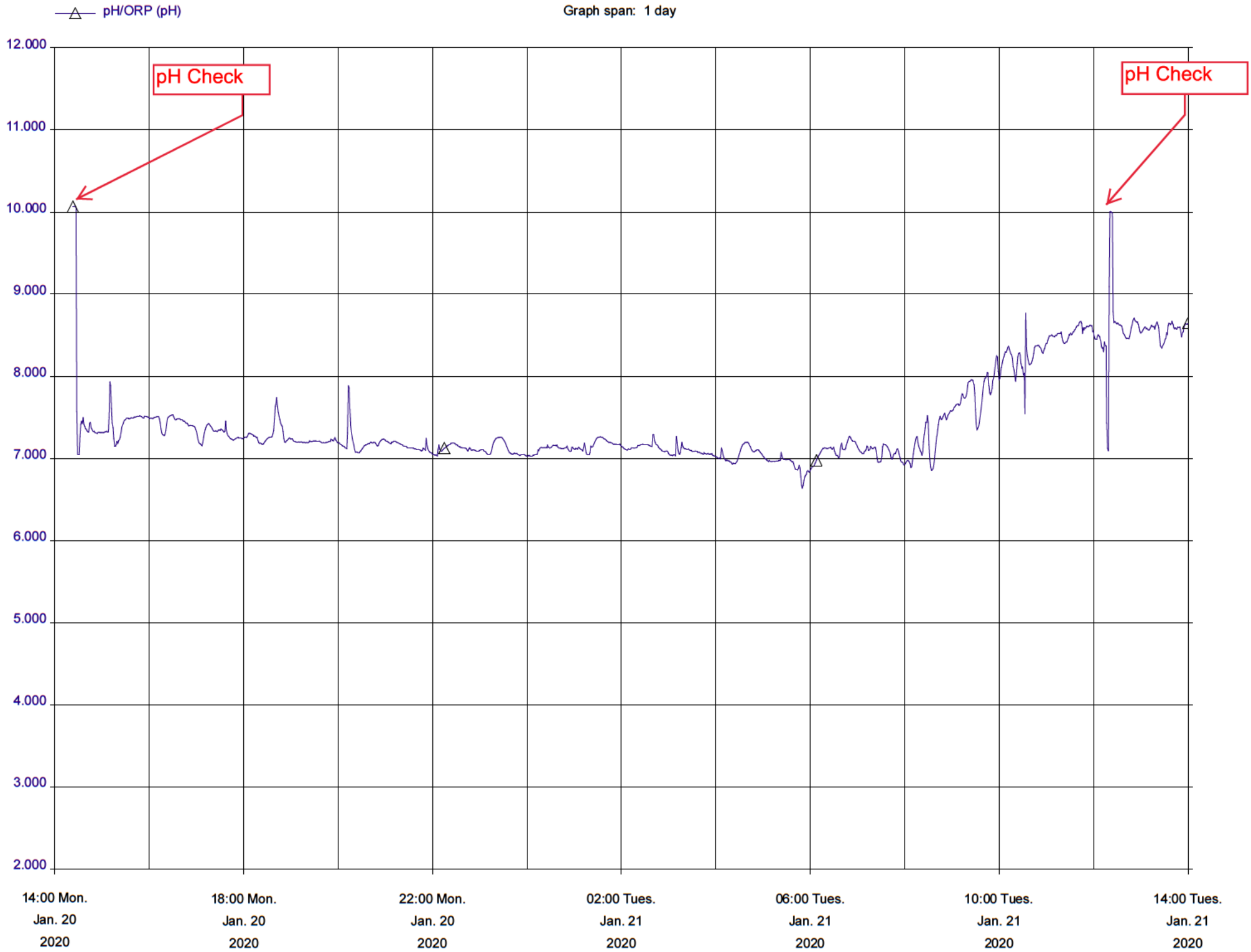
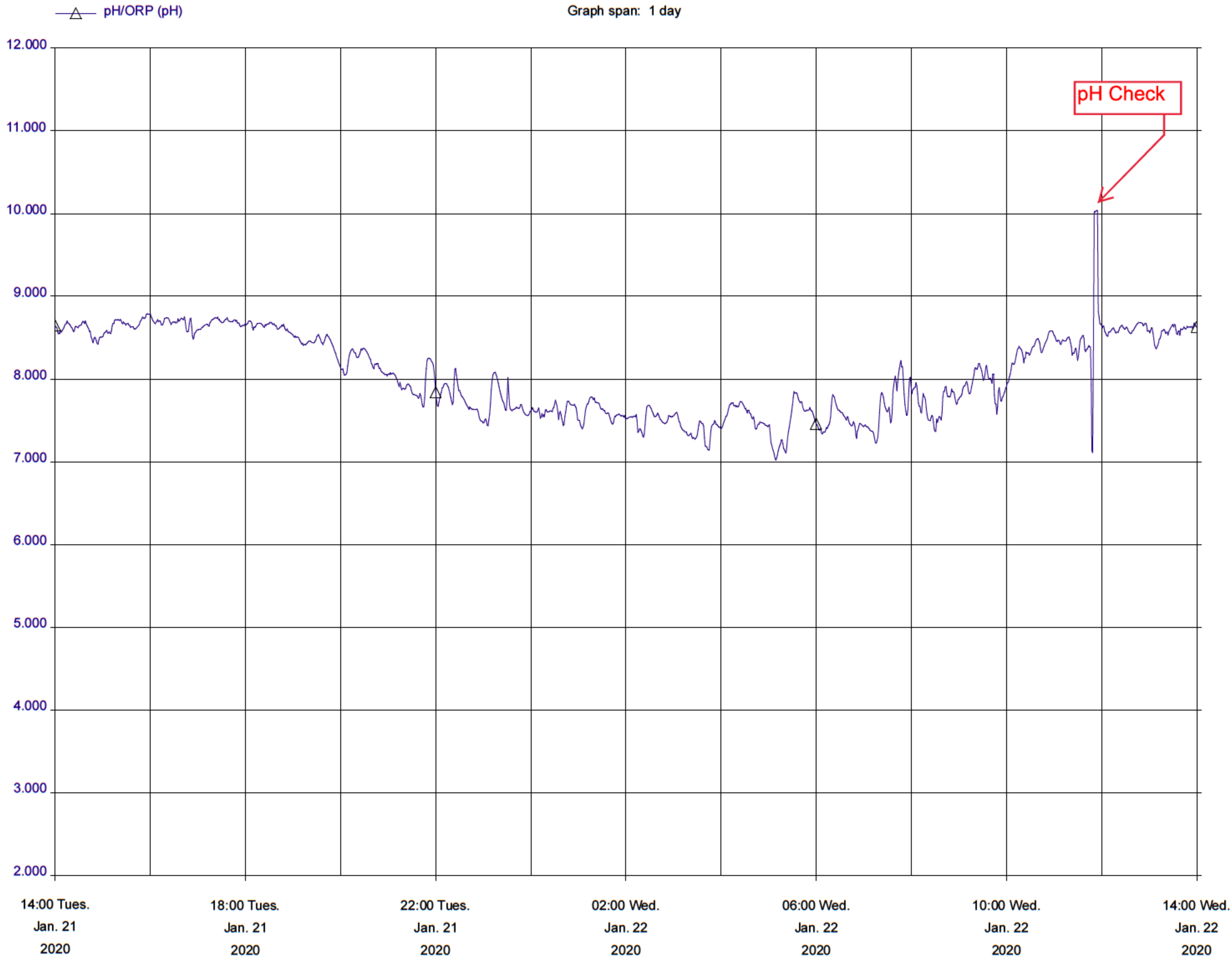

WSSC First Quarter pH Monitoring Graph 1-20-2020 to 1-23-2020

Site Id: 20200121 File name: 01230859.000



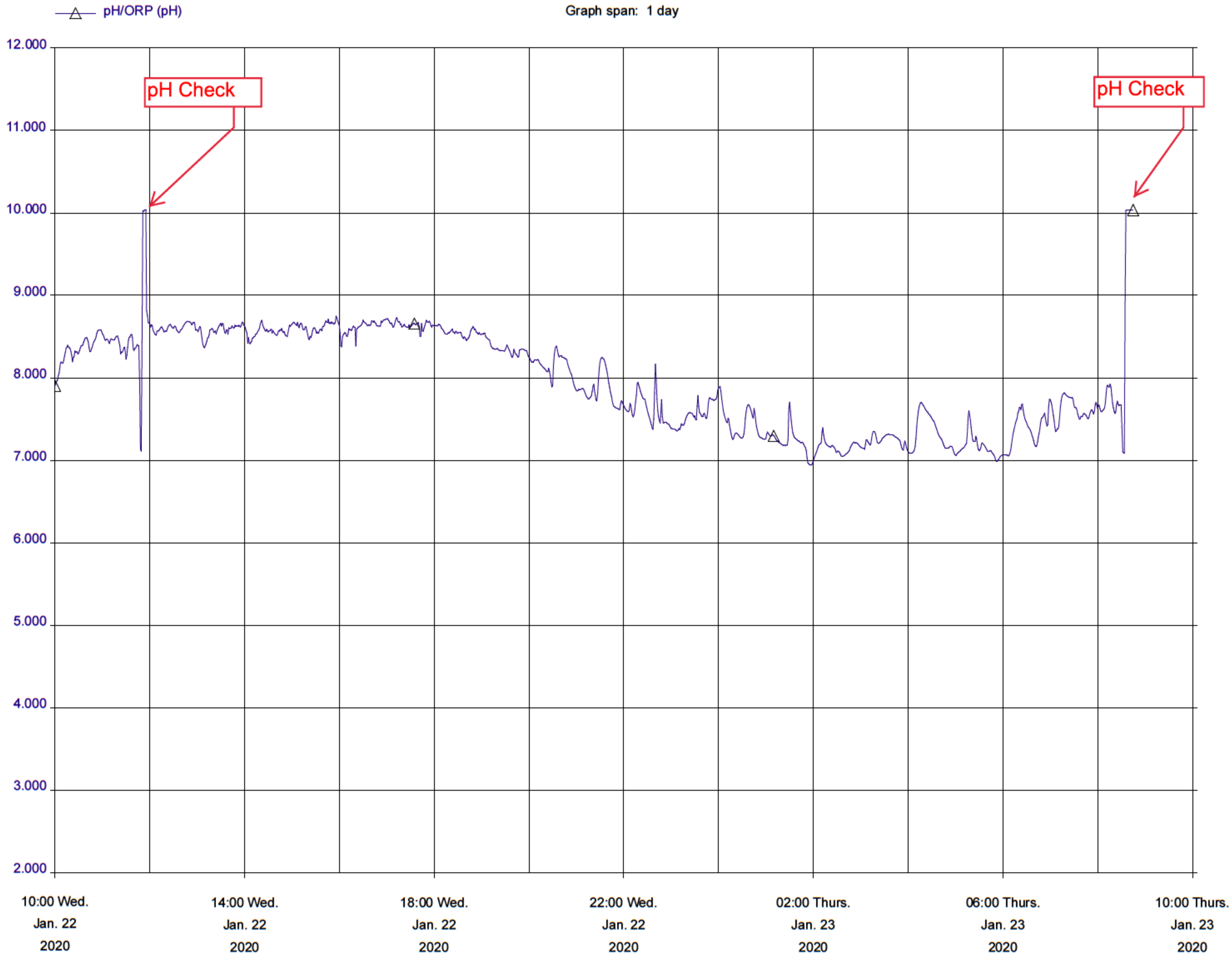
WSSC First Quarter pH Monitoring Graph 1-20-2020 to 1-23-2020

Site Id: 20200121 File name: 01230859.000



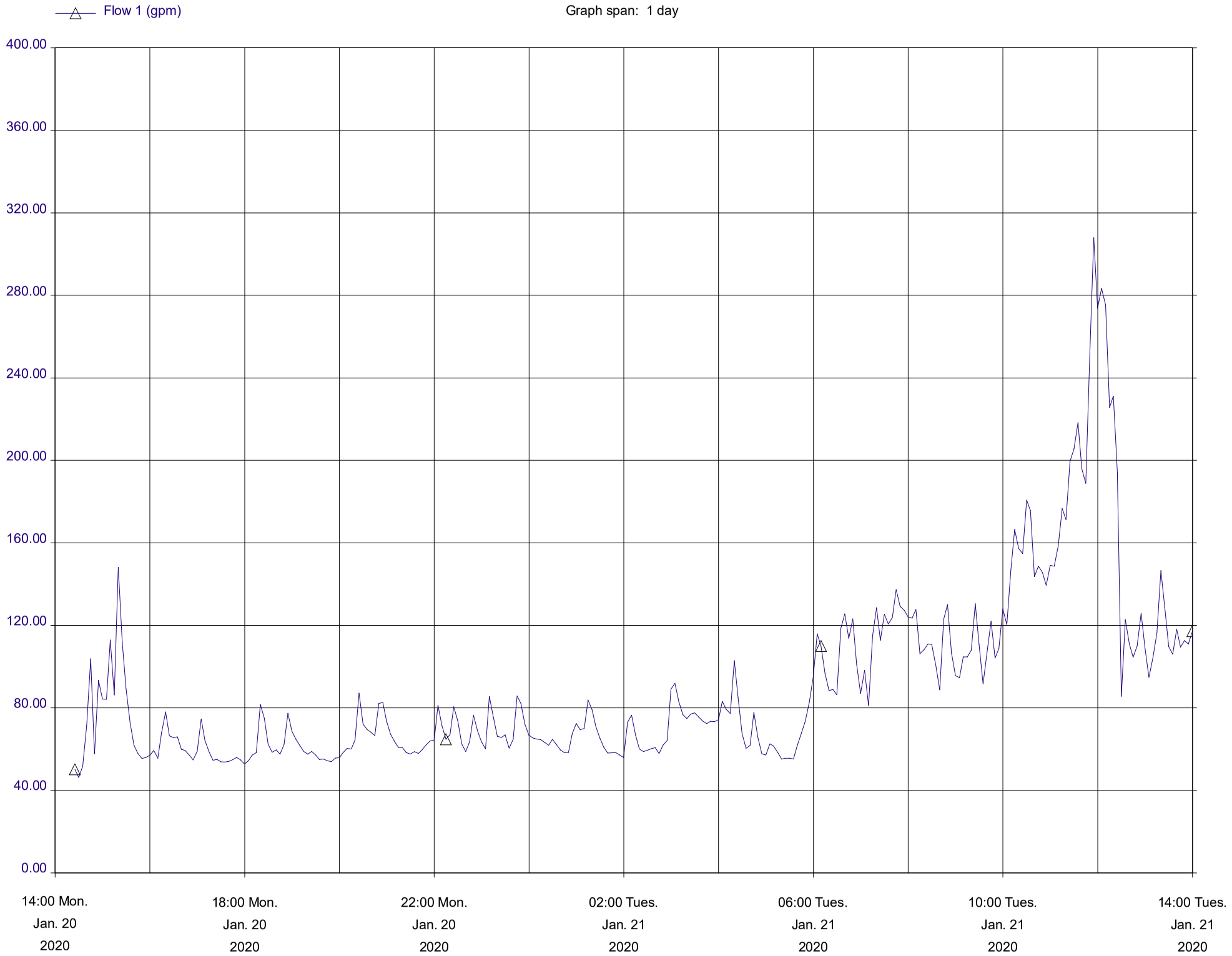
WSSC First Quarter pH Monitoring Graph 1-20-2020 to 1-23-2020

Site Id: 20200121 File name: 01230859.000



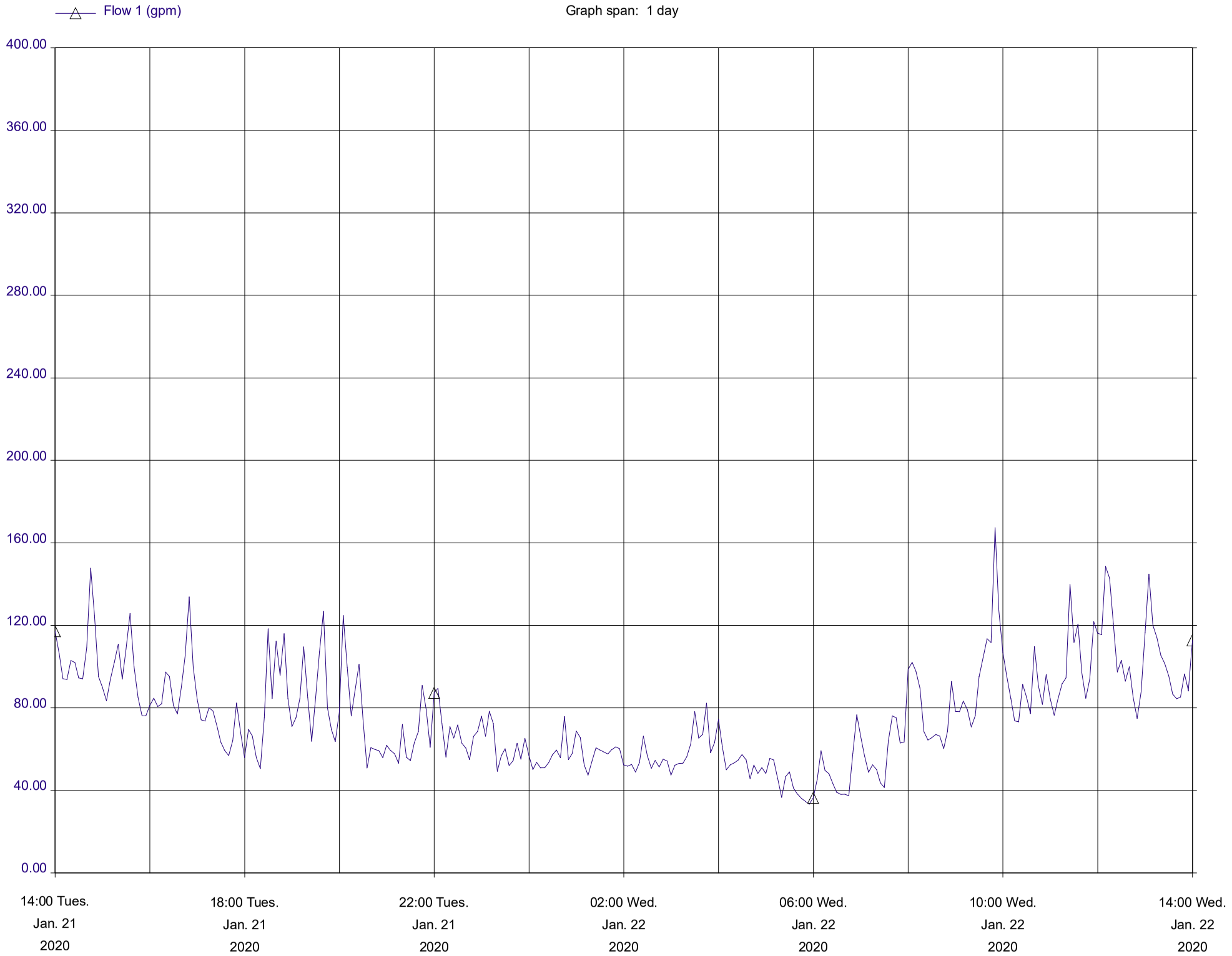
WSSC First Quarter Flow Monitoring Graph 1-20-2020 to 1-23-2020

Site Id: 20200121 File name: 01230859.000



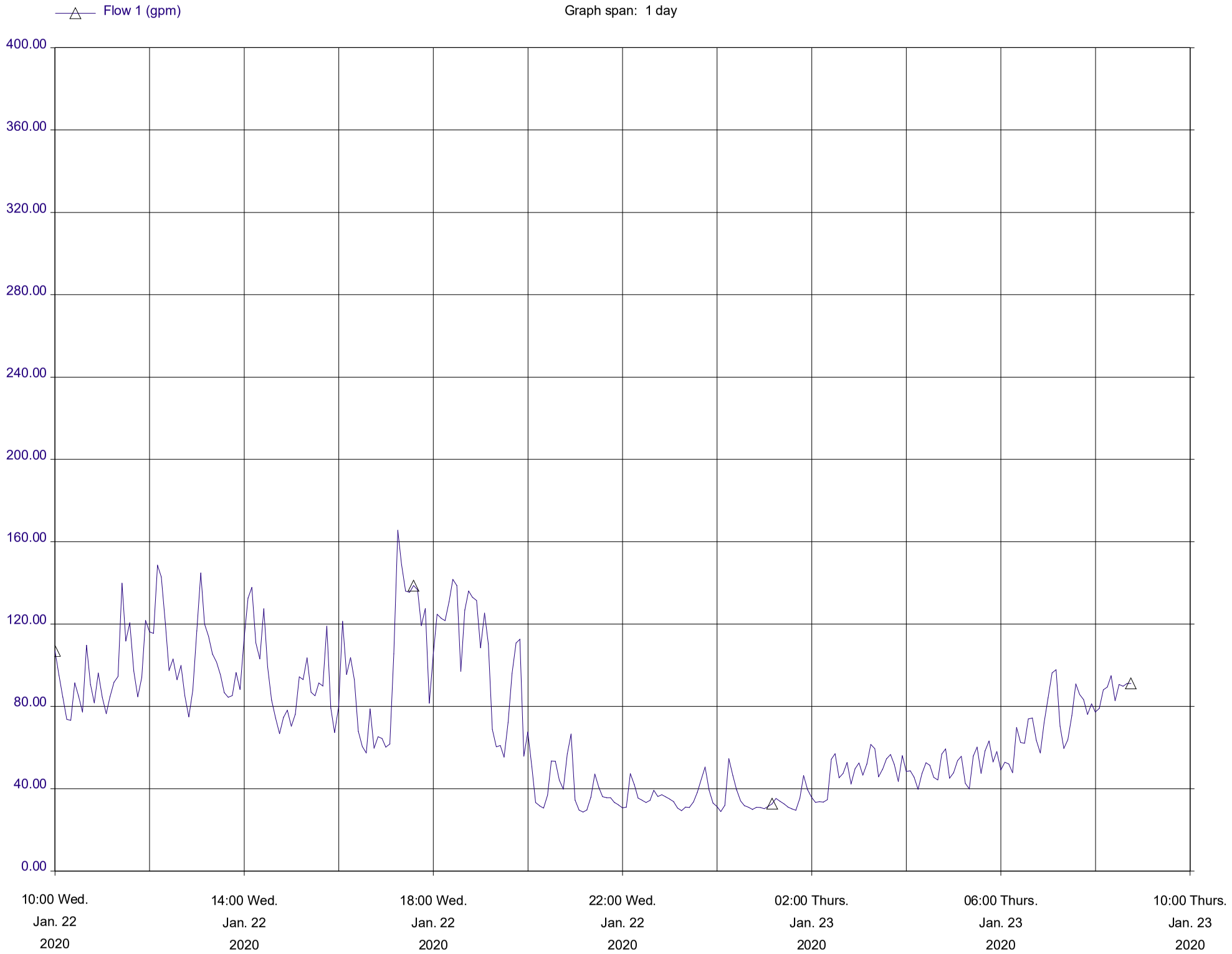
WSSC First Quarter Flow Monitoring Graph 1-20-2020 to 1-23-2020

Site Id: 20200121 File name: 01230859.000



WSSC First Quarter Flow Monitoring Graph 1-20-2020 to 1-23-2020

Site Id: 20200121 File name: 01230859.000



```
                Insight For Windows: Version: 5.10.6
==================================================================
                           Program settings
Site Id:            20200121
------------------------------------------------------------------
Program settings

PGM:
900MAX VERSION: 7.64

SITE ID:           20200121
LEVEL SENSOR:    SUBMERGED XDUCER
  TYPE:             0-10 FT
  CAL OFFSET:           406
  CAL GAIN:           6.991  /cm
  USER OFFSET:         0.00 cm
NUMBER OF BOTTLES:        2
BOTTLE VOLUME:        10.00 gal
INTAKE TUBE LENGTH:      12 ft
INTAKE TUBE TYPE:      3/8" VINYL
  FIRST:        IMMEDIATELY
TIMED BOTTLE SETS:
  TIME INTERVAL:00:00
  BOTTLES PER SET:        1
  CONTINUOUS MODE:       ON
LIQUID SENSORS:          ON
SAMPLE VOLUME:          100 ml
INTAKE RINSES:            0
SAMPLE RETRIES:           3
SITE ID:           20200121
FLOW METER:
FLOW UNITS:             gpm
TOTAL FLOW UNITS:       gal
LEVEL UNITS:            in.
MANNING EQUATION
  SHAPE:    U-SHAPE CHANNEL
  WIDTH:              11.00 in.
  SLOPE:            0.00500
  ROUGHNESS:         0.0170
SCREEN SAVER MODE:      OFF
LOADED PROGRAM:           1
RS232 BAUD RATE:      19200
DAYS TO LOG:            9.0
INSTALLED MEMORY:       128K
EXTENDED POWER:         OFF

--INPUT------UNITS-LOGGING--INTV-
PROC.TEMP    F       OFF
pH           pH       ON     1min
FLOW         gpm      ON     5min
LEVEL        in.      ON     5min
VELOCITY    fps      OFF
CAB.TEMP.    C       OFF
MEMORY MODE:          SLATE
THERMAL CALIBRATE
  AT:       15:46 13-JAN-20
pH CALIBRATION
  AT:       14:22 20-JAN-20
PGM CMPLT OUTPUT
  DISABLED
SPECIAL OUTPUT:
  DISABLED
UPSET SAMPLING:
```

DISABLED

DONE

==========

Logged Readings

Site Id: 20200121

Date	Time	pH/ORP (pH)	Level (in.)	Flow 1 (gpm)
Started pH checks				
20/JAN/20	14:23	10.06		
20/JAN/20	14:24	10.06		
20/JAN/20	14:25	10.07	2.014	50.166
20/JAN/20	14:26	10.06		
20/JAN/20	14:27	10.05		
20/JAN/20	14:28	7.57		
20/JAN/20	14:29	7.05		
20/JAN/20	14:30	7.05	1.936	46.296
20/JAN/20	14:31	7.05		
Ended pH checks				
20/JAN/20	14:32	7.27		
20/JAN/20	14:33	7.41		
20/JAN/20	14:34	7.45		
20/JAN/20	14:35	7.42	2.042	51.630
20/JAN/20	14:36	7.50		
20/JAN/20	14:37	7.41		
20/JAN/20	14:38	7.39		
20/JAN/20	14:39	7.36		
20/JAN/20	14:40	7.35	2.398	71.467
20/JAN/20	14:41	7.33		
20/JAN/20	14:42	7.32		
20/JAN/20	14:43	7.32		
20/JAN/20	14:44	7.43		
20/JAN/20	14:45	7.44	2.892	103.740
20/JAN/20	14:46	7.37		
20/JAN/20	14:47	7.36		
20/JAN/20	14:48	7.34		
20/JAN/20	14:49	7.33		
20/JAN/20	14:50	7.33	2.155	57.585
20/JAN/20	14:51	7.31		
20/JAN/20	14:52	7.31		
20/JAN/20	14:53	7.31		
20/JAN/20	14:54	7.30		
20/JAN/20	14:55	7.32	2.741	93.296
20/JAN/20	14:56	7.32		
20/JAN/20	14:57	7.32		
20/JAN/20	14:58	7.31		
20/JAN/20	14:59	7.32		
20/JAN/20	15:00	7.31	2.604	84.250
20/JAN/20	15:01	7.32		
20/JAN/20	15:02	7.31		
20/JAN/20	15:03	7.32		
20/JAN/20	15:04	7.33		
20/JAN/20	15:05	7.32	2.602	84.159
20/JAN/20	15:06	7.33		
20/JAN/20	15:07	7.32		
20/JAN/20	15:08	7.33		

20/JAN/20	15:09	7.50		
20/JAN/20	15:10	7.93	3.019	112.877
20/JAN/20	15:11	7.89		
20/JAN/20	15:12	7.61		
20/JAN/20	15:13	7.43		
20/JAN/20	15:14	7.38		
20/JAN/20	15:15	7.24	2.633	86.162
20/JAN/20	15:16	7.15		
20/JAN/20	15:17	7.15		
20/JAN/20	15:18	7.17		
20/JAN/20	15:19	7.21		
20/JAN/20	15:20	7.18	3.473	148.173
20/JAN/20	15:21	7.21		
20/JAN/20	15:22	7.23		
20/JAN/20	15:23	7.26		
20/JAN/20	15:24	7.31		
20/JAN/20	15:25	7.38	3.001	111.586
20/JAN/20	15:26	7.40		
20/JAN/20	15:27	7.43		
20/JAN/20	15:28	7.46		
20/JAN/20	15:29	7.47		
20/JAN/20	15:30	7.47	2.680	89.242
20/JAN/20	15:31	7.49		
20/JAN/20	15:32	7.49		
20/JAN/20	15:33	7.49		
20/JAN/20	15:34	7.48		
20/JAN/20	15:35	7.48	2.422	72.879
20/JAN/20	15:36	7.49		
20/JAN/20	15:37	7.49		
20/JAN/20	15:38	7.49		
20/JAN/20	15:39	7.49		
20/JAN/20	15:40	7.49	2.230	61.709
20/JAN/20	15:41	7.50		
20/JAN/20	15:42	7.50		
20/JAN/20	15:43	7.51		
20/JAN/20	15:44	7.51		
20/JAN/20	15:45	7.51	2.158	57.738
20/JAN/20	15:46	7.51		
20/JAN/20	15:47	7.51		
20/JAN/20	15:48	7.52		
20/JAN/20	15:49	7.51		
20/JAN/20	15:50	7.51	2.115	55.434
20/JAN/20	15:51	7.50		
20/JAN/20	15:52	7.49		
20/JAN/20	15:53	7.49		
20/JAN/20	15:54	7.51		
20/JAN/20	15:55	7.51	2.125	55.959
20/JAN/20	15:56	7.51		
20/JAN/20	15:57	7.51		
20/JAN/20	15:58	7.51		
20/JAN/20	15:59	7.50		
20/JAN/20	16:00	7.49	2.144	56.994
20/JAN/20	16:01	7.49		
20/JAN/20	16:02	7.49		
20/JAN/20	16:03	7.49		
20/JAN/20	16:04	7.49		
20/JAN/20	16:05	7.49	2.185	59.241
20/JAN/20	16:06	7.50		
20/JAN/20	16:07	7.50		
20/JAN/20	16:08	7.50		
20/JAN/20	16:09	7.51		
20/JAN/20	16:10	7.51	2.117	55.551
20/JAN/20	16:11	7.51		

20/JAN/20	16:12	7.51		
20/JAN/20	16:13	7.48		
20/JAN/20	16:14	7.43		
20/JAN/20	16:15	7.36	2.341	68.066
20/JAN/20	16:16	7.31		
20/JAN/20	16:17	7.29		
20/JAN/20	16:18	7.29		
20/JAN/20	16:19	7.28		
20/JAN/20	16:20	7.29	2.505	77.982
20/JAN/20	16:21	7.34		
20/JAN/20	16:22	7.41		
20/JAN/20	16:23	7.48		
20/JAN/20	16:24	7.50		
20/JAN/20	16:25	7.51	2.312	66.353
20/JAN/20	16:26	7.52		
20/JAN/20	16:27	7.52		
20/JAN/20	16:28	7.53		
20/JAN/20	16:29	7.53		
20/JAN/20	16:30	7.53	2.297	65.491
20/JAN/20	16:31	7.51		
20/JAN/20	16:32	7.49		
20/JAN/20	16:33	7.47		
20/JAN/20	16:34	7.47		
20/JAN/20	16:35	7.48	2.305	65.946
20/JAN/20	16:36	7.48		
20/JAN/20	16:37	7.49		
20/JAN/20	16:38	7.48		
20/JAN/20	16:39	7.48		
20/JAN/20	16:40	7.47	2.197	59.869
20/JAN/20	16:41	7.47		
20/JAN/20	16:42	7.47		
20/JAN/20	16:43	7.46		
20/JAN/20	16:44	7.45		
20/JAN/20	16:45	7.45	2.186	59.248
20/JAN/20	16:46	7.43		
20/JAN/20	16:47	7.43		
20/JAN/20	16:48	7.43		
20/JAN/20	16:49	7.42		
20/JAN/20	16:50	7.40	2.146	57.093
20/JAN/20	16:51	7.40		
20/JAN/20	16:52	7.40		
20/JAN/20	16:53	7.40		
20/JAN/20	16:54	7.40		
20/JAN/20	16:55	7.40	2.102	54.737
20/JAN/20	16:56	7.39		
20/JAN/20	16:57	7.39		
20/JAN/20	16:58	7.38		
20/JAN/20	16:59	7.36		
20/JAN/20	17:00	7.33	2.178	58.841
20/JAN/20	17:01	7.28		
20/JAN/20	17:02	7.23		
20/JAN/20	17:03	7.19		
20/JAN/20	17:04	7.18		
20/JAN/20	17:05	7.17	2.450	74.560
20/JAN/20	17:06	7.16		
20/JAN/20	17:07	7.15		
20/JAN/20	17:08	7.19		
20/JAN/20	17:09	7.26		
20/JAN/20	17:10	7.31	2.271	64.045
20/JAN/20	17:11	7.35		
20/JAN/20	17:12	7.38		
20/JAN/20	17:13	7.40		
20/JAN/20	17:14	7.41		

20/JAN/20	17:15	7.42	2.176	58.743
20/JAN/20	17:16	7.42		
20/JAN/20	17:17	7.41		
20/JAN/20	17:18	7.39		
20/JAN/20	17:19	7.38		
20/JAN/20	17:20	7.36	2.099	54.588
20/JAN/20	17:21	7.34		
20/JAN/20	17:22	7.33		
20/JAN/20	17:23	7.33		
20/JAN/20	17:24	7.34		
20/JAN/20	17:25	7.33	2.106	54.933
20/JAN/20	17:26	7.33		
20/JAN/20	17:27	7.33		
20/JAN/20	17:28	7.34		
20/JAN/20	17:29	7.35		
20/JAN/20	17:30	7.34	2.084	53.806
20/JAN/20	17:31	7.36		
20/JAN/20	17:32	7.35		
20/JAN/20	17:33	7.34		
20/JAN/20	17:34	7.33		
20/JAN/20	17:35	7.32	2.082	53.682
20/JAN/20	17:36	7.33		
20/JAN/20	17:37	7.45		
20/JAN/20	17:38	7.35		
20/JAN/20	17:39	7.30		
20/JAN/20	17:40	7.28	2.087	53.941
20/JAN/20	17:41	7.27		
20/JAN/20	17:42	7.25		
20/JAN/20	17:43	7.24		
20/JAN/20	17:44	7.23		
20/JAN/20	17:45	7.23	2.104	54.857
20/JAN/20	17:46	7.22		
20/JAN/20	17:47	7.22		
20/JAN/20	17:48	7.23		
20/JAN/20	17:49	7.24		
20/JAN/20	17:50	7.24	2.125	55.950
20/JAN/20	17:51	7.25		
20/JAN/20	17:52	7.25		
20/JAN/20	17:53	7.26		
20/JAN/20	17:54	7.25		
20/JAN/20	17:55	7.24	2.100	54.653
20/JAN/20	17:56	7.25		
20/JAN/20	17:57	7.24		
20/JAN/20	17:58	7.24		
20/JAN/20	17:59	7.24		
20/JAN/20	18:00	7.25	2.064	52.737
20/JAN/20	18:01	7.25		
20/JAN/20	18:02	7.25		
20/JAN/20	18:03	7.25		
20/JAN/20	18:04	7.26		
20/JAN/20	18:05	7.27	2.096	54.417
20/JAN/20	18:06	7.30		
20/JAN/20	18:07	7.31		
20/JAN/20	18:08	7.30		
20/JAN/20	18:09	7.30		
20/JAN/20	18:10	7.29	2.147	57.122
20/JAN/20	18:11	7.29		
20/JAN/20	18:12	7.28		
20/JAN/20	18:13	7.28		
20/JAN/20	18:14	7.27		
20/JAN/20	18:15	7.27	2.168	58.299
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20/JAN/20	18:17	7.26		

20/JAN/20	18:18	7.22		
20/JAN/20	18:19	7.19		
20/JAN/20	18:20	7.18	2.563	81.638
20/JAN/20	18:21	7.19		
20/JAN/20	18:22	7.18		
20/JAN/20	18:23	7.17		
20/JAN/20	18:24	7.17		
20/JAN/20	18:25	7.17	2.455	74.913
20/JAN/20	18:26	7.19		
20/JAN/20	18:27	7.20		
20/JAN/20	18:28	7.22		
20/JAN/20	18:29	7.23		
20/JAN/20	18:30	7.24	2.241	62.349
20/JAN/20	18:31	7.25		
20/JAN/20	18:32	7.25		
20/JAN/20	18:33	7.26		
20/JAN/20	18:34	7.26		
20/JAN/20	18:35	7.26	2.171	58.472
20/JAN/20	18:36	7.27		
20/JAN/20	18:37	7.30		
20/JAN/20	18:38	7.34		
20/JAN/20	18:39	7.48		
20/JAN/20	18:40	7.63	2.191	59.561
20/JAN/20	18:41	7.66		
20/JAN/20	18:42	7.74		
20/JAN/20	18:43	7.64		
20/JAN/20	18:44	7.56		
20/JAN/20	18:45	7.51	2.154	57.539
20/JAN/20	18:46	7.47		
20/JAN/20	18:47	7.43		
20/JAN/20	18:48	7.41		
20/JAN/20	18:49	7.39		
20/JAN/20	18:50	7.33	2.240	62.298
20/JAN/20	18:51	7.24		
20/JAN/20	18:52	7.20		
20/JAN/20	18:53	7.19		
20/JAN/20	18:54	7.21		
20/JAN/20	18:55	7.22	2.495	77.374
20/JAN/20	18:56	7.23		
20/JAN/20	18:57	7.24		
20/JAN/20	18:58	7.25		
20/JAN/20	18:59	7.24		
20/JAN/20	19:00	7.23	2.351	68.646
20/JAN/20	19:01	7.24		
20/JAN/20	19:02	7.24		
20/JAN/20	19:03	7.22		
20/JAN/20	19:04	7.21		
20/JAN/20	19:05	7.21	2.284	64.738
20/JAN/20	19:06	7.20		
20/JAN/20	19:07	7.20		
20/JAN/20	19:08	7.19		
20/JAN/20	19:09	7.20		
20/JAN/20	19:10	7.20	2.229	61.639
20/JAN/20	19:11	7.20		
20/JAN/20	19:12	7.20		
20/JAN/20	19:13	7.20		
20/JAN/20	19:14	7.20		
20/JAN/20	19:15	7.19	2.178	58.835
20/JAN/20	19:16	7.19		
20/JAN/20	19:17	7.20		
20/JAN/20	19:18	7.19		
20/JAN/20	19:19	7.19		
20/JAN/20	19:20	7.19	2.154	57.512

20/JAN/20	19:21	7.19		
20/JAN/20	19:22	7.19		
20/JAN/20	19:23	7.20		
20/JAN/20	19:24	7.21		
20/JAN/20	19:25	7.20	2.179	58.875
20/JAN/20	19:26	7.20		
20/JAN/20	19:27	7.21		
20/JAN/20	19:28	7.21		
20/JAN/20	19:29	7.21		
20/JAN/20	19:30	7.21	2.145	57.043
20/JAN/20	19:31	7.21		
20/JAN/20	19:32	7.21		
20/JAN/20	19:33	7.21		
20/JAN/20	19:34	7.21		
20/JAN/20	19:35	7.21	2.105	54.910
20/JAN/20	19:36	7.21		
20/JAN/20	19:37	7.21		
20/JAN/20	19:38	7.20		
20/JAN/20	19:39	7.19		
20/JAN/20	19:40	7.19	2.110	55.183
20/JAN/20	19:41	7.19		
20/JAN/20	19:42	7.19		
20/JAN/20	19:43	7.19		
20/JAN/20	19:44	7.19		
20/JAN/20	19:45	7.19	2.094	54.303
20/JAN/20	19:46	7.20		
20/JAN/20	19:47	7.20		
20/JAN/20	19:48	7.21		
20/JAN/20	19:49	7.21		
20/JAN/20	19:50	7.20	2.086	53.876
20/JAN/20	19:51	7.23		
20/JAN/20	19:52	7.23		
20/JAN/20	19:53	7.22		
20/JAN/20	19:54	7.21		
20/JAN/20	19:55	7.23	2.119	55.655
20/JAN/20	19:56	7.25		
20/JAN/20	19:57	7.22		
20/JAN/20	19:58	7.21		
20/JAN/20	19:59	7.19		
20/JAN/20	20:00	7.19	2.120	55.716
20/JAN/20	20:01	7.19		
20/JAN/20	20:02	7.18		
20/JAN/20	20:03	7.17		
20/JAN/20	20:04	7.17		
20/JAN/20	20:05	7.16	2.169	58.324
20/JAN/20	20:06	7.15		
20/JAN/20	20:07	7.15		
20/JAN/20	20:08	7.14		
20/JAN/20	20:09	7.13		
20/JAN/20	20:10	7.13	2.205	60.295
20/JAN/20	20:11	7.12		
20/JAN/20	20:12	7.31		
20/JAN/20	20:13	7.88		
20/JAN/20	20:14	7.86		
20/JAN/20	20:15	7.60	2.199	59.977
20/JAN/20	20:16	7.40		
20/JAN/20	20:17	7.31		
20/JAN/20	20:18	7.25		
20/JAN/20	20:19	7.20		
20/JAN/20	20:20	7.16	2.278	64.430
20/JAN/20	20:21	7.11		
20/JAN/20	20:22	7.07		
20/JAN/20	20:23	7.08		

20/JAN/20	20:24	7.07		
20/JAN/20	20:25	7.07	2.648	87.095
20/JAN/20	20:26	7.07		
20/JAN/20	20:27	7.07		
20/JAN/20	20:28	7.08		
20/JAN/20	20:29	7.09		
20/JAN/20	20:30	7.11	2.410	72.142
20/JAN/20	20:31	7.12		
20/JAN/20	20:32	7.13		
20/JAN/20	20:33	7.15		
20/JAN/20	20:34	7.16		
20/JAN/20	20:35	7.17	2.366	69.530
20/JAN/20	20:36	7.16		
20/JAN/20	20:37	7.17		
20/JAN/20	20:38	7.18		
20/JAN/20	20:39	7.18		
20/JAN/20	20:40	7.18	2.342	68.146
20/JAN/20	20:41	7.19		
20/JAN/20	20:42	7.19		
20/JAN/20	20:43	7.19		
20/JAN/20	20:44	7.18		
20/JAN/20	20:45	7.20	2.313	66.452
20/JAN/20	20:46	7.19		
20/JAN/20	20:47	7.19		
20/JAN/20	20:48	7.18		
20/JAN/20	20:49	7.16		
20/JAN/20	20:50	7.15	2.571	82.125
20/JAN/20	20:51	7.16		
20/JAN/20	20:52	7.18		
20/JAN/20	20:53	7.20		
20/JAN/20	20:54	7.21		
20/JAN/20	20:55	7.22	2.578	82.575
20/JAN/20	20:56	7.23		
20/JAN/20	20:57	7.23		
20/JAN/20	20:58	7.24		
20/JAN/20	20:59	7.23		
20/JAN/20	21:00	7.22	2.431	73.454
20/JAN/20	21:01	7.21		
20/JAN/20	21:02	7.21		
20/JAN/20	21:03	7.20		
20/JAN/20	21:04	7.19		
20/JAN/20	21:05	7.19	2.325	67.139
20/JAN/20	21:06	7.18		
20/JAN/20	21:07	7.18		
20/JAN/20	21:08	7.19		
20/JAN/20	21:09	7.19		
20/JAN/20	21:10	7.20	2.264	63.622
20/JAN/20	21:11	7.21		
20/JAN/20	21:12	7.21		
20/JAN/20	21:13	7.21		
20/JAN/20	21:14	7.20		
20/JAN/20	21:15	7.19	2.213	60.757
20/JAN/20	21:16	7.19		
20/JAN/20	21:17	7.19		
20/JAN/20	21:18	7.18		
20/JAN/20	21:19	7.17		
20/JAN/20	21:20	7.17	2.212	60.682
20/JAN/20	21:21	7.17		
20/JAN/20	21:22	7.16		
20/JAN/20	21:23	7.15		
20/JAN/20	21:24	7.15		
20/JAN/20	21:25	7.15	2.167	58.205
20/JAN/20	21:26	7.15		

20/JAN/20	21:27	7.14		
20/JAN/20	21:28	7.13		
20/JAN/20	21:29	7.13		
20/JAN/20	21:30	7.13	2.155	57.563
20/JAN/20	21:31	7.13		
20/JAN/20	21:32	7.13		
20/JAN/20	21:33	7.13		
20/JAN/20	21:34	7.13		
20/JAN/20	21:35	7.12	2.176	58.703
20/JAN/20	21:36	7.12		
20/JAN/20	21:37	7.12		
20/JAN/20	21:38	7.11		
20/JAN/20	21:39	7.11		
20/JAN/20	21:40	7.11	2.160	57.845
20/JAN/20	21:41	7.11		
20/JAN/20	21:42	7.11		
20/JAN/20	21:43	7.11		
20/JAN/20	21:44	7.10		
20/JAN/20	21:45	7.10	2.194	59.684
20/JAN/20	21:46	7.09		
20/JAN/20	21:47	7.10		
20/JAN/20	21:48	7.13		
20/JAN/20	21:49	7.12		
20/JAN/20	21:50	7.11	2.235	61.993
20/JAN/20	21:51	7.10		
20/JAN/20	21:52	7.24		
20/JAN/20	21:53	7.17		
20/JAN/20	21:54	7.12		
20/JAN/20	21:55	7.10	2.269	63.901
20/JAN/20	21:56	7.08		
20/JAN/20	21:57	7.07		
20/JAN/20	21:58	7.07		
20/JAN/20	21:59	7.07		
20/JAN/20	22:00	7.05	2.276	64.334
20/JAN/20	22:01	7.05		
20/JAN/20	22:02	7.05		
20/JAN/20	22:03	7.04		
20/JAN/20	22:04	7.04		
20/JAN/20	22:05	7.04	2.556	81.186
20/JAN/20	22:06	7.03		
20/JAN/20	22:07	7.11		
20/JAN/20	22:08	7.16		
20/JAN/20	22:09	7.11		
20/JAN/20	22:10	7.10	2.395	71.277
20/JAN/20	22:11	7.09		
20/JAN/20	22:12	7.09		
20/JAN/20	22:13	7.10		
20/JAN/20	22:14	7.11		
20/JAN/20	22:15	7.12	2.283	64.690
20/JAN/20	22:16	7.13		
20/JAN/20	22:17	7.14		
20/JAN/20	22:18	7.15		
20/JAN/20	22:19	7.15		
20/JAN/20	22:20	7.16	2.321	66.885
20/JAN/20	22:21	7.17		
20/JAN/20	22:22	7.17		
20/JAN/20	22:23	7.18		
20/JAN/20	22:24	7.18		
20/JAN/20	22:25	7.19	2.544	80.432
20/JAN/20	22:26	7.19		
20/JAN/20	22:27	7.19		
20/JAN/20	22:28	7.18		
20/JAN/20	22:29	7.18		

20/JAN/20	22:30	7.16	2.436	73.722
20/JAN/20	22:31	7.17		
20/JAN/20	22:32	7.16		
20/JAN/20	22:33	7.15		
20/JAN/20	22:34	7.14		
20/JAN/20	22:35	7.14	2.244	62.510
20/JAN/20	22:36	7.13		
20/JAN/20	22:37	7.13		
20/JAN/20	22:38	7.13		
20/JAN/20	22:39	7.13		
20/JAN/20	22:40	7.13	2.177	58.787
20/JAN/20	22:41	7.13		
20/JAN/20	22:42	7.12		
20/JAN/20	22:43	7.12		
20/JAN/20	22:44	7.10		
20/JAN/20	22:45	7.09	2.260	63.405
20/JAN/20	22:46	7.11		
20/JAN/20	22:47	7.13		
20/JAN/20	22:48	7.12		
20/JAN/20	22:49	7.10		
20/JAN/20	22:50	7.10	2.478	76.289
20/JAN/20	22:51	7.11		
20/JAN/20	22:52	7.10		
20/JAN/20	22:53	7.10		
20/JAN/20	22:54	7.10		
20/JAN/20	22:55	7.09	2.354	68.846
20/JAN/20	22:56	7.09		
20/JAN/20	22:57	7.09		
20/JAN/20	22:58	7.09		
20/JAN/20	22:59	7.09		
20/JAN/20	23:00	7.10	2.261	63.437
20/JAN/20	23:01	7.10		
20/JAN/20	23:02	7.10		
20/JAN/20	23:03	7.11		
20/JAN/20	23:04	7.11		
20/JAN/20	23:05	7.10	2.200	60.065
20/JAN/20	23:06	7.09		
20/JAN/20	23:07	7.09		
20/JAN/20	23:08	7.07		
20/JAN/20	23:09	7.06		
20/JAN/20	23:10	7.05	2.623	85.524
20/JAN/20	23:11	7.05		
20/JAN/20	23:12	7.05		
20/JAN/20	23:13	7.05		
20/JAN/20	23:14	7.06		
20/JAN/20	23:15	7.10	2.465	75.506
20/JAN/20	23:16	7.14		
20/JAN/20	23:17	7.17		
20/JAN/20	23:18	7.20		
20/JAN/20	23:19	7.22		
20/JAN/20	23:20	7.23	2.310	66.238
20/JAN/20	23:21	7.24		
20/JAN/20	23:22	7.25		
20/JAN/20	23:23	7.25		
20/JAN/20	23:24	7.26		
20/JAN/20	23:25	7.25	2.298	65.570
20/JAN/20	23:26	7.26		
20/JAN/20	23:27	7.26		
20/JAN/20	23:28	7.25		
20/JAN/20	23:29	7.24		
20/JAN/20	23:30	7.23	2.320	66.822
20/JAN/20	23:31	7.22		
20/JAN/20	23:32	7.20		

20/JAN/20	23:33	7.18		
20/JAN/20	23:34	7.15		
20/JAN/20	23:35	7.13	2.208	60.459
20/JAN/20	23:36	7.10		
20/JAN/20	23:37	7.08		
20/JAN/20	23:38	7.06		
20/JAN/20	23:39	7.06		
20/JAN/20	23:40	7.05	2.279	64.456
20/JAN/20	23:41	7.05		
20/JAN/20	23:42	7.05		
20/JAN/20	23:43	7.06		
20/JAN/20	23:44	7.07		
20/JAN/20	23:45	7.06	2.627	85.752
20/JAN/20	23:46	7.06		
20/JAN/20	23:47	7.06		
20/JAN/20	23:48	7.05		
20/JAN/20	23:49	7.05		
20/JAN/20	23:50	7.04	2.570	82.113
20/JAN/20	23:51	7.03		
20/JAN/20	23:52	7.04		
20/JAN/20	23:53	7.05		
20/JAN/20	23:54	7.05		
20/JAN/20	23:55	7.05	2.408	72.051
20/JAN/20	23:56	7.05		
20/JAN/20	23:57	7.04		
20/JAN/20	23:58	7.04		
20/JAN/20	23:59	7.03		
21/JAN/20	00:00	7.03	2.318	66.726

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Day Report - 20/JAN/20
Monday

Site Id: 20200121

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	pH/ORP (pH)	Level (in.)	Flow 1 (gpm)
Minimum:	7.03	1.936	46.296
	00:00	14:30	14:30
Maximum:	10.07	3.473	148.173
	14:25	15:20	15:20
Average:	----	2.303	66.456

Total Flow1: 3854.443 (gal) x10

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Logged Readings

Site Id: 20200121

Date	Time	pH/ORP (pH)	Level (in.)	Flow 1 (gpm)
21/JAN/20	00:01	7.03		
21/JAN/20	00:02	7.04		
21/JAN/20	00:03	7.03		
21/JAN/20	00:04	7.03		
21/JAN/20	00:05	7.03	2.294	65.316
21/JAN/20	00:06	7.03		
21/JAN/20	00:07	7.03		
21/JAN/20	00:08	7.04		
21/JAN/20	00:09	7.04		
21/JAN/20	00:10	7.05	2.285	64.802
21/JAN/20	00:11	7.05		

21/JAN/20	00:12	7.05		
21/JAN/20	00:13	7.05		
21/JAN/20	00:14	7.10		
21/JAN/20	00:15	7.09	2.281	64.578
21/JAN/20	00:16	7.12		
21/JAN/20	00:17	7.13		
21/JAN/20	00:18	7.13		
21/JAN/20	00:19	7.13		
21/JAN/20	00:20	7.13	2.256	63.154
21/JAN/20	00:21	7.13		
21/JAN/20	00:22	7.13		
21/JAN/20	00:23	7.13		
21/JAN/20	00:24	7.13		
21/JAN/20	00:25	7.13	2.232	61.805
21/JAN/20	00:26	7.16		
21/JAN/20	00:27	7.13		
21/JAN/20	00:28	7.14		
21/JAN/20	00:29	7.13		
21/JAN/20	00:30	7.13	2.282	64.677
21/JAN/20	00:31	7.14		
21/JAN/20	00:32	7.15		
21/JAN/20	00:33	7.16		
21/JAN/20	00:34	7.16		
21/JAN/20	00:35	7.16	2.237	62.122
21/JAN/20	00:36	7.16		
21/JAN/20	00:37	7.15		
21/JAN/20	00:38	7.16		
21/JAN/20	00:39	7.14		
21/JAN/20	00:40	7.13	2.191	59.543
21/JAN/20	00:41	7.12		
21/JAN/20	00:42	7.13		
21/JAN/20	00:43	7.12		
21/JAN/20	00:44	7.12		
21/JAN/20	00:45	7.12	2.168	58.261
21/JAN/20	00:46	7.12		
21/JAN/20	00:47	7.12		
21/JAN/20	00:48	7.13		
21/JAN/20	00:49	7.13		
21/JAN/20	00:50	7.13	2.169	58.315
21/JAN/20	00:51	7.15		
21/JAN/20	00:52	7.11		
21/JAN/20	00:53	7.10		
21/JAN/20	00:54	7.09		
21/JAN/20	00:55	7.08	2.330	67.424
21/JAN/20	00:56	7.09		
21/JAN/20	00:57	7.14		
21/JAN/20	00:58	7.13		
21/JAN/20	00:59	7.12		
21/JAN/20	01:00	7.11	2.413	72.356
21/JAN/20	01:01	7.11		
21/JAN/20	01:02	7.12		
21/JAN/20	01:03	7.12		
21/JAN/20	01:04	7.11		
21/JAN/20	01:05	7.13	2.363	69.353
21/JAN/20	01:06	7.14		
21/JAN/20	01:07	7.12		
21/JAN/20	01:08	7.11		
21/JAN/20	01:09	7.11		
21/JAN/20	01:10	7.10	2.372	69.921
21/JAN/20	01:11	7.09		
21/JAN/20	01:12	7.13		
21/JAN/20	01:13	7.19		
21/JAN/20	01:14	7.14		

21/JAN/20	01:15	7.07	2.595	83.688
21/JAN/20	01:16	7.05		
21/JAN/20	01:17	7.04		
21/JAN/20	01:18	7.04		
21/JAN/20	01:19	7.04		
21/JAN/20	01:20	7.07	2.523	79.099
21/JAN/20	01:21	7.15		
21/JAN/20	01:22	7.14		
21/JAN/20	01:23	7.14		
21/JAN/20	01:24	7.15		
21/JAN/20	01:25	7.17	2.384	70.607
21/JAN/20	01:26	7.19		
21/JAN/20	01:27	7.21		
21/JAN/20	01:28	7.23		
21/JAN/20	01:29	7.25		
21/JAN/20	01:30	7.25	2.290	65.119
21/JAN/20	01:31	7.26		
21/JAN/20	01:32	7.26		
21/JAN/20	01:33	7.26		
21/JAN/20	01:34	7.26		
21/JAN/20	01:35	7.26	2.214	60.834
21/JAN/20	01:36	7.25		
21/JAN/20	01:37	7.25		
21/JAN/20	01:38	7.24		
21/JAN/20	01:39	7.23		
21/JAN/20	01:40	7.23	2.163	58.013
21/JAN/20	01:41	7.22		
21/JAN/20	01:42	7.21		
21/JAN/20	01:43	7.20		
21/JAN/20	01:44	7.19		
21/JAN/20	01:45	7.20	2.166	58.167
21/JAN/20	01:46	7.19		
21/JAN/20	01:47	7.19		
21/JAN/20	01:48	7.19		
21/JAN/20	01:49	7.18		
21/JAN/20	01:50	7.17	2.167	58.210
21/JAN/20	01:51	7.17		
21/JAN/20	01:52	7.17		
21/JAN/20	01:53	7.17		
21/JAN/20	01:54	7.17		
21/JAN/20	01:55	7.17	2.146	57.096
21/JAN/20	01:56	7.17		
21/JAN/20	01:57	7.17		
21/JAN/20	01:58	7.17		
21/JAN/20	01:59	7.16		
21/JAN/20	02:00	7.15	2.123	55.850
21/JAN/20	02:01	7.14		
21/JAN/20	02:02	7.14		
21/JAN/20	02:03	7.12		
21/JAN/20	02:04	7.12		
21/JAN/20	02:05	7.11	2.424	73.000
21/JAN/20	02:06	7.11		
21/JAN/20	02:07	7.10		
21/JAN/20	02:08	7.10		
21/JAN/20	02:09	7.12		
21/JAN/20	02:10	7.11	2.479	76.393
21/JAN/20	02:11	7.11		
21/JAN/20	02:12	7.12		
21/JAN/20	02:13	7.13		
21/JAN/20	02:14	7.13		
21/JAN/20	02:15	7.13	2.318	66.710
21/JAN/20	02:16	7.12		
21/JAN/20	02:17	7.13		

21/JAN/20	02:18	7.13		
21/JAN/20	02:19	7.13		
21/JAN/20	02:20	7.13	2.200	60.027
21/JAN/20	02:21	7.15		
21/JAN/20	02:22	7.15		
21/JAN/20	02:23	7.16		
21/JAN/20	02:24	7.16		
21/JAN/20	02:25	7.17	2.176	58.746
21/JAN/20	02:26	7.17		
21/JAN/20	02:27	7.17		
21/JAN/20	02:28	7.17		
21/JAN/20	02:29	7.17		
21/JAN/20	02:30	7.17	2.189	59.445
21/JAN/20	02:31	7.17		
21/JAN/20	02:32	7.17		
21/JAN/20	02:33	7.17		
21/JAN/20	02:34	7.16		
21/JAN/20	02:35	7.16	2.203	60.188
21/JAN/20	02:36	7.16		
21/JAN/20	02:37	7.15		
21/JAN/20	02:38	7.14		
21/JAN/20	02:39	7.14		
21/JAN/20	02:40	7.29	2.211	60.631
21/JAN/20	02:41	7.29		
21/JAN/20	02:42	7.22		
21/JAN/20	02:43	7.19		
21/JAN/20	02:44	7.17		
21/JAN/20	02:45	7.16	2.160	57.825
21/JAN/20	02:46	7.16		
21/JAN/20	02:47	7.14		
21/JAN/20	02:48	7.13		
21/JAN/20	02:49	7.11		
21/JAN/20	02:50	7.11	2.235	61.975
21/JAN/20	02:51	7.10		
21/JAN/20	02:52	7.09		
21/JAN/20	02:53	7.09		
21/JAN/20	02:54	7.08		
21/JAN/20	02:55	7.08	2.272	64.060
21/JAN/20	02:56	7.09		
21/JAN/20	02:57	7.09		
21/JAN/20	02:58	7.09		
21/JAN/20	02:59	7.08		
21/JAN/20	03:00	7.06	2.677	89.053
21/JAN/20	03:01	7.04		
21/JAN/20	03:02	7.04		
21/JAN/20	03:03	7.04		
21/JAN/20	03:04	7.04		
21/JAN/20	03:05	7.03	2.719	91.807
21/JAN/20	03:06	7.04		
21/JAN/20	03:07	7.04		
21/JAN/20	03:08	7.04		
21/JAN/20	03:09	7.03		
21/JAN/20	03:10	7.27	2.580	82.729
21/JAN/20	03:11	7.19		
21/JAN/20	03:12	7.10		
21/JAN/20	03:13	7.06		
21/JAN/20	03:14	7.05		
21/JAN/20	03:15	7.07	2.483	76.638
21/JAN/20	03:16	7.13		
21/JAN/20	03:17	7.20		
21/JAN/20	03:18	7.15		
21/JAN/20	03:19	7.13		
21/JAN/20	03:20	7.12	2.453	74.758

21/JAN/20	03:21	7.11		
21/JAN/20	03:22	7.11		
21/JAN/20	03:23	7.11		
21/JAN/20	03:24	7.11		
21/JAN/20	03:25	7.12	2.488	76.930
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21/JAN/20	10:47	8.37		
21/JAN/20	10:48	8.37		
21/JAN/20	10:49	8.37		
21/JAN/20	10:50	8.38	3.442	145.650
21/JAN/20	10:51	8.36		
21/JAN/20	10:52	8.35		
21/JAN/20	10:53	8.34		
21/JAN/20	10:54	8.31		
21/JAN/20	10:55	8.29	3.364	139.339
21/JAN/20	10:56	8.28		
21/JAN/20	10:57	8.31		
21/JAN/20	10:58	8.34		
21/JAN/20	10:59	8.38		
21/JAN/20	11:00	8.40	3.483	148.976
21/JAN/20	11:01	8.40		
21/JAN/20	11:02	8.44		
21/JAN/20	11:03	8.46		
21/JAN/20	11:04	8.49		
21/JAN/20	11:05	8.50	3.479	148.630
21/JAN/20	11:06	8.50		
21/JAN/20	11:07	8.50		
21/JAN/20	11:08	8.49		
21/JAN/20	11:09	8.49		
21/JAN/20	11:10	8.48	3.596	158.348
21/JAN/20	11:11	8.49		
21/JAN/20	11:12	8.50		
21/JAN/20	11:13	8.50		
21/JAN/20	11:14	8.51		
21/JAN/20	11:15	8.52	3.808	176.584
21/JAN/20	11:16	8.52		
21/JAN/20	11:17	8.52		
21/JAN/20	11:18	8.52		
21/JAN/20	11:19	8.54		
21/JAN/20	11:20	8.47	3.747	171.242
21/JAN/20	11:21	8.43		
21/JAN/20	11:22	8.41		
21/JAN/20	11:23	8.40		
21/JAN/20	11:24	8.40		
21/JAN/20	11:25	8.41	4.063	199.437
21/JAN/20	11:26	8.42		
21/JAN/20	11:27	8.43		
21/JAN/20	11:28	8.46		
21/JAN/20	11:29	8.51		
21/JAN/20	11:30	8.50	4.129	205.498
21/JAN/20	11:31	8.52		
21/JAN/20	11:32	8.51		
21/JAN/20	11:33	8.51		
21/JAN/20	11:34	8.54		
21/JAN/20	11:35	8.54	4.266	218.264
21/JAN/20	11:36	8.56		
21/JAN/20	11:37	8.57		
21/JAN/20	11:38	8.59		
21/JAN/20	11:39	8.61		
21/JAN/20	11:40	8.62	4.025	195.916
21/JAN/20	11:41	8.62		
21/JAN/20	11:42	8.65		
21/JAN/20	11:43	8.66		
21/JAN/20	11:44	8.66		

21/JAN/20	11:45	8.64	3.946	188.826
21/JAN/20	11:46	8.52		
21/JAN/20	11:47	8.59		
21/JAN/20	11:48	8.56		
21/JAN/20	11:49	8.59		
21/JAN/20	11:50	8.58	4.605	250.998
21/JAN/20	11:51	8.60		
21/JAN/20	11:52	8.61		
21/JAN/20	11:53	8.60		
21/JAN/20	11:54	8.61		
21/JAN/20	11:55	8.61	5.167	307.885
21/JAN/20	11:56	8.62		
21/JAN/20	11:57	8.61		
21/JAN/20	11:58	8.62		
21/JAN/20	11:59	8.54		
21/JAN/20	12:00	8.55	4.833	273.701
21/JAN/20	12:01	8.48		
21/JAN/20	12:02	8.45		
21/JAN/20	12:03	8.45		
21/JAN/20	12:04	8.45		
21/JAN/20	12:05	8.49	4.928	283.324
21/JAN/20	12:06	8.50		
21/JAN/20	12:07	8.49		
21/JAN/20	12:08	8.48		
21/JAN/20	12:09	8.44		
21/JAN/20	12:10	8.36	4.849	275.319
21/JAN/20	12:11	8.34		
21/JAN/20	12:12	8.35		
21/JAN/20	12:13	8.30		
21/JAN/20	12:14	8.42		
21/JAN/20	12:15	8.37	4.343	225.580
21/JAN/20	12:16	8.37		

Started pH checks

21/JAN/20	12:17	7.43		
21/JAN/20	12:18	7.12		
21/JAN/20	12:19	7.09		
21/JAN/20	12:20	9.09	4.401	231.104
21/JAN/20	12:21	10.00		
21/JAN/20	12:22	10.01		
21/JAN/20	12:23	9.99		
21/JAN/20	12:24	9.99		

Finished pH checks

21/JAN/20	12:25	8.79	4.005	194.128
21/JAN/20	12:26	8.65		
21/JAN/20	12:27	8.67		
21/JAN/20	12:28	8.66		
21/JAN/20	12:29	8.64		
21/JAN/20	12:30	8.63	2.624	85.542
21/JAN/20	12:31	8.65		
21/JAN/20	12:32	8.64		
21/JAN/20	12:33	8.62		
21/JAN/20	12:34	8.62		
21/JAN/20	12:35	8.61	3.151	122.704
21/JAN/20	12:36	8.61		
21/JAN/20	12:37	8.57		
21/JAN/20	12:38	8.52		

21/JAN/20	12:39	8.51		
21/JAN/20	12:40	8.49	2.993	110.958
21/JAN/20	12:41	8.47		
21/JAN/20	12:42	8.46		
21/JAN/20	12:43	8.46		
21/JAN/20	12:44	8.46		
21/JAN/20	12:45	8.46	2.903	104.547
21/JAN/20	12:46	8.49		
21/JAN/20	12:47	8.53		
21/JAN/20	12:48	8.59		
21/JAN/20	12:49	8.62		
21/JAN/20	12:50	8.67	2.978	109.924
21/JAN/20	12:51	8.70		
21/JAN/20	12:52	8.71		
21/JAN/20	12:53	8.68		
21/JAN/20	12:54	8.67		
21/JAN/20	12:55	8.66	3.192	125.838
21/JAN/20	12:56	8.66		
21/JAN/20	12:57	8.63		
21/JAN/20	12:58	8.59		
21/JAN/20	12:59	8.55		
21/JAN/20	13:00	8.53	2.957	108.394
21/JAN/20	13:01	8.53		
21/JAN/20	13:02	8.54		
21/JAN/20	13:03	8.56		
21/JAN/20	13:04	8.58		
21/JAN/20	13:05	8.59	2.763	94.786
21/JAN/20	13:06	8.60		
21/JAN/20	13:07	8.58		
21/JAN/20	13:08	8.58		
21/JAN/20	13:09	8.57		
21/JAN/20	13:10	8.56	2.899	104.239
21/JAN/20	13:11	8.56		
21/JAN/20	13:12	8.59		
21/JAN/20	13:13	8.60		
21/JAN/20	13:14	8.62		
21/JAN/20	13:15	8.61	3.064	116.231
21/JAN/20	13:16	8.60		
21/JAN/20	13:17	8.60		
21/JAN/20	13:18	8.57		
21/JAN/20	13:19	8.62		
21/JAN/20	13:20	8.64	3.453	146.532
21/JAN/20	13:21	8.66		
21/JAN/20	13:22	8.62		
21/JAN/20	13:23	8.59		
21/JAN/20	13:24	8.48		
21/JAN/20	13:25	8.37	3.230	128.821
21/JAN/20	13:26	8.36		
21/JAN/20	13:27	8.34		
21/JAN/20	13:28	8.37		
21/JAN/20	13:29	8.39		
21/JAN/20	13:30	8.41	2.975	109.649
21/JAN/20	13:31	8.45		
21/JAN/20	13:32	8.46		
21/JAN/20	13:33	8.53		
21/JAN/20	13:34	8.51		
21/JAN/20	13:35	8.62	2.924	105.986
21/JAN/20	13:36	8.65		
21/JAN/20	13:37	8.64		
21/JAN/20	13:38	8.63		
21/JAN/20	13:39	8.64		
21/JAN/20	13:40	8.67	3.089	118.073
21/JAN/20	13:41	8.63		

21/JAN/20	13:42	8.59		
21/JAN/20	13:43	8.58		
21/JAN/20	13:44	8.59		
21/JAN/20	13:45	8.58	2.972	109.432
21/JAN/20	13:46	8.57		
21/JAN/20	13:47	8.60		
21/JAN/20	13:48	8.59		
21/JAN/20	13:49	8.59		
21/JAN/20	13:50	8.60	3.015	112.574
21/JAN/20	13:51	8.54		
21/JAN/20	13:52	8.48		
21/JAN/20	13:53	8.53		
21/JAN/20	13:54	8.54		
21/JAN/20	13:55	8.59	2.991	110.846
21/JAN/20	13:56	8.62		
21/JAN/20	13:57	8.64		
21/JAN/20	13:58	8.63		
21/JAN/20	13:59	8.63		
21/JAN/20	14:00	8.64	3.076	117.126
21/JAN/20	14:01	8.63		
21/JAN/20	14:02	8.62		
21/JAN/20	14:03	8.56		
21/JAN/20	14:04	8.54		
21/JAN/20	14:05	8.56	2.931	106.537
21/JAN/20	14:06	8.55		
21/JAN/20	14:07	8.59		
21/JAN/20	14:08	8.57		
21/JAN/20	14:09	8.59		
21/JAN/20	14:10	8.60	2.753	94.126
21/JAN/20	14:11	8.62		
21/JAN/20	14:12	8.65		
21/JAN/20	14:13	8.67		
21/JAN/20	14:14	8.67		
21/JAN/20	14:15	8.70	2.747	93.735
21/JAN/20	14:16	8.68		
21/JAN/20	14:17	8.67		
21/JAN/20	14:18	8.66		
21/JAN/20	14:19	8.65		
21/JAN/20	14:20	8.63	2.881	102.940
21/JAN/20	14:21	8.62		
21/JAN/20	14:22	8.59		
21/JAN/20	14:23	8.57		
21/JAN/20	14:24	8.58		
21/JAN/20	14:25	8.63	2.866	101.944
21/JAN/20	14:26	8.64		
21/JAN/20	14:27	8.63		
21/JAN/20	14:28	8.62		
21/JAN/20	14:29	8.62		
21/JAN/20	14:30	8.64	2.758	94.446
21/JAN/20	14:31	8.65		
21/JAN/20	14:32	8.65		
21/JAN/20	14:33	8.66		
21/JAN/20	14:34	8.68		
21/JAN/20	14:35	8.70	2.752	94.022
21/JAN/20	14:36	8.69		
21/JAN/20	14:37	8.67		
21/JAN/20	14:38	8.70		
21/JAN/20	14:39	8.67		
21/JAN/20	14:40	8.65	2.965	108.952
21/JAN/20	14:41	8.62		
21/JAN/20	14:42	8.61		
21/JAN/20	14:43	8.58		
21/JAN/20	14:44	8.58		

21/JAN/20	14:45	8.51	3.467	147.687
21/JAN/20	14:46	8.49		
21/JAN/20	14:47	8.45		
21/JAN/20	14:48	8.44		
21/JAN/20	14:49	8.49		
21/JAN/20	14:50	8.51	3.177	124.705
21/JAN/20	14:51	8.49		
21/JAN/20	14:52	8.46		
21/JAN/20	14:53	8.43		
21/JAN/20	14:54	8.42		
21/JAN/20	14:55	8.47	2.769	95.193
21/JAN/20	14:56	8.50		
21/JAN/20	14:57	8.51		
21/JAN/20	14:58	8.50		
21/JAN/20	14:59	8.51		
21/JAN/20	15:00	8.51	2.690	89.914
21/JAN/20	15:01	8.54		
21/JAN/20	15:02	8.56		
21/JAN/20	15:03	8.56		
21/JAN/20	15:04	8.58		
21/JAN/20	15:05	8.59	2.592	83.468
21/JAN/20	15:06	8.56		
21/JAN/20	15:07	8.56		
21/JAN/20	15:08	8.57		
21/JAN/20	15:09	8.55		
21/JAN/20	15:10	8.55	2.744	93.518
21/JAN/20	15:11	8.58		
21/JAN/20	15:12	8.65		
21/JAN/20	15:13	8.67		
21/JAN/20	15:14	8.67		
21/JAN/20	15:15	8.71	2.865	101.852
21/JAN/20	15:16	8.72		
21/JAN/20	15:17	8.71		
21/JAN/20	15:18	8.71		
21/JAN/20	15:19	8.72		
21/JAN/20	15:20	8.71	2.991	110.815
21/JAN/20	15:21	8.71		
21/JAN/20	15:22	8.72		
21/JAN/20	15:23	8.71		
21/JAN/20	15:24	8.68		
21/JAN/20	15:25	8.67	2.749	93.867
21/JAN/20	15:26	8.69		
21/JAN/20	15:27	8.67		
21/JAN/20	15:28	8.67		
21/JAN/20	15:29	8.65		
21/JAN/20	15:30	8.67	2.959	108.498
21/JAN/20	15:31	8.67		
21/JAN/20	15:32	8.67		
21/JAN/20	15:33	8.65		
21/JAN/20	15:34	8.65		
21/JAN/20	15:35	8.62	3.190	125.724
21/JAN/20	15:36	8.63		
21/JAN/20	15:37	8.63		
21/JAN/20	15:38	8.63		
21/JAN/20	15:39	8.61		
21/JAN/20	15:40	8.60	2.837	99.910
21/JAN/20	15:41	8.61		
21/JAN/20	15:42	8.61		
21/JAN/20	15:43	8.62		
21/JAN/20	15:44	8.63		
21/JAN/20	15:45	8.64	2.615	84.991
21/JAN/20	15:46	8.66		
21/JAN/20	15:47	8.69		

21/JAN/20	15:48	8.71		
21/JAN/20	15:49	8.73		
21/JAN/20	15:50	8.75	2.476	76.167
21/JAN/20	15:51	8.74		
21/JAN/20	15:52	8.73		
21/JAN/20	15:53	8.74		
21/JAN/20	15:54	8.75		
21/JAN/20	15:55	8.78	2.475	76.135
21/JAN/20	15:56	8.79		
21/JAN/20	15:57	8.78		
21/JAN/20	15:58	8.78		
21/JAN/20	15:59	8.78		
21/JAN/20	16:00	8.79	2.556	81.196
21/JAN/20	16:01	8.76		
21/JAN/20	16:02	8.73		
21/JAN/20	16:03	8.71		
21/JAN/20	16:04	8.69		
21/JAN/20	16:05	8.68	2.610	84.656
21/JAN/20	16:06	8.67		
21/JAN/20	16:07	8.68		
21/JAN/20	16:08	8.69		
21/JAN/20	16:09	8.72		
21/JAN/20	16:10	8.69	2.548	80.660
21/JAN/20	16:11	8.70		
21/JAN/20	16:12	8.70		
21/JAN/20	16:13	8.69		
21/JAN/20	16:14	8.66		
21/JAN/20	16:15	8.65	2.569	81.998
21/JAN/20	16:16	8.66		
21/JAN/20	16:17	8.69		
21/JAN/20	16:18	8.73		
21/JAN/20	16:19	8.73		
21/JAN/20	16:20	8.74	2.801	97.378
21/JAN/20	16:21	8.74		
21/JAN/20	16:22	8.74		
21/JAN/20	16:23	8.73		
21/JAN/20	16:24	8.70		
21/JAN/20	16:25	8.68	2.770	95.291
21/JAN/20	16:26	8.66		
21/JAN/20	16:27	8.67		
21/JAN/20	16:28	8.69		
21/JAN/20	16:29	8.69		
21/JAN/20	16:30	8.69	2.557	81.266
21/JAN/20	16:31	8.69		
21/JAN/20	16:32	8.68		
21/JAN/20	16:33	8.68		
21/JAN/20	16:34	8.68		
21/JAN/20	16:35	8.73	2.490	77.045
21/JAN/20	16:36	8.70		
21/JAN/20	16:37	8.71		
21/JAN/20	16:38	8.72		
21/JAN/20	16:39	8.73		
21/JAN/20	16:40	8.73	2.694	90.149
21/JAN/20	16:41	8.72		
21/JAN/20	16:42	8.72		
21/JAN/20	16:43	8.75		
21/JAN/20	16:44	8.70		
21/JAN/20	16:45	8.61	2.916	105.472
21/JAN/20	16:46	8.57		
21/JAN/20	16:47	8.57		
21/JAN/20	16:48	8.58		
21/JAN/20	16:49	8.66		
21/JAN/20	16:50	8.72	3.294	133.788

21/JAN/20	16:51	8.73		
21/JAN/20	16:52	8.63		
21/JAN/20	16:53	8.52		
21/JAN/20	16:54	8.48		
21/JAN/20	16:55	8.50	2.837	99.893
21/JAN/20	16:56	8.55		
21/JAN/20	16:57	8.56		
21/JAN/20	16:58	8.58		
21/JAN/20	16:59	8.59		
21/JAN/20	17:00	8.59	2.603	84.181
21/JAN/20	17:01	8.60		
21/JAN/20	17:02	8.60		
21/JAN/20	17:03	8.60		
21/JAN/20	17:04	8.61		
21/JAN/20	17:05	8.63	2.444	74.211
21/JAN/20	17:06	8.62		
21/JAN/20	17:07	8.64		
21/JAN/20	17:08	8.65		
21/JAN/20	17:09	8.65		
21/JAN/20	17:10	8.66	2.433	73.548
21/JAN/20	17:11	8.66		
21/JAN/20	17:12	8.66		
21/JAN/20	17:13	8.64		
21/JAN/20	17:14	8.64		
21/JAN/20	17:15	8.68	2.537	79.995
21/JAN/20	17:16	8.69		
21/JAN/20	17:17	8.70		
21/JAN/20	17:18	8.72		
21/JAN/20	17:19	8.72		
21/JAN/20	17:20	8.73	2.511	78.350
21/JAN/20	17:21	8.74		
21/JAN/20	17:22	8.74		
21/JAN/20	17:23	8.74		
21/JAN/20	17:24	8.73		
21/JAN/20	17:25	8.75	2.393	71.154
21/JAN/20	17:26	8.72		
21/JAN/20	17:27	8.72		
21/JAN/20	17:28	8.70		
21/JAN/20	17:29	8.70		
21/JAN/20	17:30	8.68	2.260	63.394
21/JAN/20	17:31	8.68		
21/JAN/20	17:32	8.68		
21/JAN/20	17:33	8.70		
21/JAN/20	17:34	8.71		
21/JAN/20	17:35	8.72	2.186	59.275
21/JAN/20	17:36	8.72		
21/JAN/20	17:37	8.74		
21/JAN/20	17:38	8.71		
21/JAN/20	17:39	8.70		
21/JAN/20	17:40	8.70	2.143	56.935
21/JAN/20	17:41	8.69		
21/JAN/20	17:42	8.69		
21/JAN/20	17:43	8.70		
21/JAN/20	17:44	8.69		
21/JAN/20	17:45	8.71	2.274	64.197
21/JAN/20	17:46	8.71		
21/JAN/20	17:47	8.71		
21/JAN/20	17:48	8.70		
21/JAN/20	17:49	8.71		
21/JAN/20	17:50	8.68	2.574	82.331
21/JAN/20	17:51	8.68		
21/JAN/20	17:52	8.67		
21/JAN/20	17:53	8.65		

21/JAN/20	17:54	8.63		
21/JAN/20	17:55	8.64	2.343	68.200
21/JAN/20	17:56	8.64		
21/JAN/20	17:57	8.65		
21/JAN/20	17:58	8.65		
21/JAN/20	17:59	8.65		
21/JAN/20	18:00	8.67	2.124	55.915
21/JAN/20	18:01	8.66		
21/JAN/20	18:02	8.66		
21/JAN/20	18:03	8.67		
21/JAN/20	18:04	8.70		
21/JAN/20	18:05	8.70	2.366	69.515
21/JAN/20	18:06	8.70		
21/JAN/20	18:07	8.69		
21/JAN/20	18:08	8.67		
21/JAN/20	18:09	8.62		
21/JAN/20	18:10	8.59	2.311	66.336
21/JAN/20	18:11	8.63		
21/JAN/20	18:12	8.62		
21/JAN/20	18:13	8.64		
21/JAN/20	18:14	8.65		
21/JAN/20	18:15	8.67	2.123	55.845
21/JAN/20	18:16	8.67		
21/JAN/20	18:17	8.67		
21/JAN/20	18:18	8.67		
21/JAN/20	18:19	8.67		
21/JAN/20	18:20	8.67	2.022	50.563
21/JAN/20	18:21	8.66		
21/JAN/20	18:22	8.65		
21/JAN/20	18:23	8.63		
21/JAN/20	18:24	8.62		
21/JAN/20	18:25	8.66	2.462	75.334
21/JAN/20	18:26	8.64		
21/JAN/20	18:27	8.66		
21/JAN/20	18:28	8.66		
21/JAN/20	18:29	8.67		
21/JAN/20	18:30	8.66	3.092	118.316
21/JAN/20	18:31	8.68		
21/JAN/20	18:32	8.68		
21/JAN/20	18:33	8.68		
21/JAN/20	18:34	8.67		
21/JAN/20	18:35	8.66	2.606	84.418
21/JAN/20	18:36	8.67		
21/JAN/20	18:37	8.66		
21/JAN/20	18:38	8.64		
21/JAN/20	18:39	8.64		
21/JAN/20	18:40	8.61	3.011	112.332
21/JAN/20	18:41	8.60		
21/JAN/20	18:42	8.61		
21/JAN/20	18:43	8.61		
21/JAN/20	18:44	8.63		
21/JAN/20	18:45	8.63	2.777	95.723
21/JAN/20	18:46	8.65		
21/JAN/20	18:47	8.64		
21/JAN/20	18:48	8.66		
21/JAN/20	18:49	8.63		
21/JAN/20	18:50	8.60	3.061	115.982
21/JAN/20	18:51	8.59		
21/JAN/20	18:52	8.58		
21/JAN/20	18:53	8.60		
21/JAN/20	18:54	8.57		
21/JAN/20	18:55	8.57	2.608	84.528
21/JAN/20	18:56	8.56		

21/JAN/20	18:57	8.56		
21/JAN/20	18:58	8.55		
21/JAN/20	18:59	8.54		
21/JAN/20	19:00	8.53	2.389	70.931
21/JAN/20	19:01	8.51		
21/JAN/20	19:02	8.50		
21/JAN/20	19:03	8.52		
21/JAN/20	19:04	8.50		
21/JAN/20	19:05	8.51	2.458	75.080
21/JAN/20	19:06	8.51		
21/JAN/20	19:07	8.50		
21/JAN/20	19:08	8.48		
21/JAN/20	19:09	8.46		
21/JAN/20	19:10	8.44	2.608	84.534
21/JAN/20	19:11	8.42		
21/JAN/20	19:12	8.43		
21/JAN/20	19:13	8.41		
21/JAN/20	19:14	8.41		
21/JAN/20	19:15	8.42	2.973	109.561
21/JAN/20	19:16	8.41		
21/JAN/20	19:17	8.43		
21/JAN/20	19:18	8.43		
21/JAN/20	19:19	8.45		
21/JAN/20	19:20	8.45	2.618	85.191
21/JAN/20	19:21	8.46		
21/JAN/20	19:22	8.45		
21/JAN/20	19:23	8.45		
21/JAN/20	19:24	8.44		
21/JAN/20	19:25	8.44	2.266	63.743
21/JAN/20	19:26	8.44		
21/JAN/20	19:27	8.44		
21/JAN/20	19:28	8.46		
21/JAN/20	19:29	8.47		
21/JAN/20	19:30	8.51	2.619	85.245
21/JAN/20	19:31	8.52		
21/JAN/20	19:32	8.54		
21/JAN/20	19:33	8.52		
21/JAN/20	19:34	8.49		
21/JAN/20	19:35	8.48	2.940	107.167
21/JAN/20	19:36	8.44		
21/JAN/20	19:37	8.43		
21/JAN/20	19:38	8.41		
21/JAN/20	19:39	8.44		
21/JAN/20	19:40	8.46	3.204	126.829
21/JAN/20	19:41	8.50		
21/JAN/20	19:42	8.52		
21/JAN/20	19:43	8.54		
21/JAN/20	19:44	8.52		
21/JAN/20	19:45	8.51	2.537	80.008
21/JAN/20	19:46	8.49		
21/JAN/20	19:47	8.48		
21/JAN/20	19:48	8.45		
21/JAN/20	19:49	8.43		
21/JAN/20	19:50	8.40	2.364	69.395
21/JAN/20	19:51	8.38		
21/JAN/20	19:52	8.35		
21/JAN/20	19:53	8.32		
21/JAN/20	19:54	8.30		
21/JAN/20	19:55	8.27	2.264	63.623
21/JAN/20	19:56	8.25		
21/JAN/20	19:57	8.22		
21/JAN/20	19:58	8.19		
21/JAN/20	19:59	8.17		

21/JAN/20	20:00	8.14	2.500	77.659
21/JAN/20	20:01	8.11		
21/JAN/20	20:02	8.12		
21/JAN/20	20:03	8.12		
21/JAN/20	20:04	8.07		
21/JAN/20	20:05	8.05	3.178	124.767
21/JAN/20	20:06	8.05		
21/JAN/20	20:07	8.06		
21/JAN/20	20:08	8.08		
21/JAN/20	20:09	8.16		
21/JAN/20	20:10	8.23	2.832	99.555
21/JAN/20	20:11	8.28		
21/JAN/20	20:12	8.32		
21/JAN/20	20:13	8.34		
21/JAN/20	20:14	8.35		
21/JAN/20	20:15	8.36	2.475	76.101
21/JAN/20	20:16	8.35		
21/JAN/20	20:17	8.33		
21/JAN/20	20:18	8.31		
21/JAN/20	20:19	8.31		
21/JAN/20	20:20	8.28	2.668	88.429
21/JAN/20	20:21	8.26		
21/JAN/20	20:22	8.26		
21/JAN/20	20:23	8.27		
21/JAN/20	20:24	8.30		
21/JAN/20	20:25	8.32	2.854	101.078
21/JAN/20	20:26	8.36		
21/JAN/20	20:27	8.35		
21/JAN/20	20:28	8.36		
21/JAN/20	20:29	8.37		
21/JAN/20	20:30	8.37	2.443	74.192
21/JAN/20	20:31	8.36		
21/JAN/20	20:32	8.35		
21/JAN/20	20:33	8.33		
21/JAN/20	20:34	8.31		
21/JAN/20	20:35	8.29	2.027	50.848
21/JAN/20	20:36	8.26		
21/JAN/20	20:37	8.25		
21/JAN/20	20:38	8.24		
21/JAN/20	20:39	8.19		
21/JAN/20	20:40	8.17	2.212	60.712
21/JAN/20	20:41	8.14		
21/JAN/20	20:42	8.12		
21/JAN/20	20:43	8.17		
21/JAN/20	20:44	8.18		
21/JAN/20	20:45	8.17	2.197	59.869
21/JAN/20	20:46	8.18		
21/JAN/20	20:47	8.18		
21/JAN/20	20:48	8.15		
21/JAN/20	20:49	8.12		
21/JAN/20	20:50	8.13	2.185	59.216
21/JAN/20	20:51	8.10		
21/JAN/20	20:52	8.09		
21/JAN/20	20:53	8.08		
21/JAN/20	20:54	8.07		
21/JAN/20	20:55	8.07	2.124	55.903
21/JAN/20	20:56	8.05		
21/JAN/20	20:57	8.05		
21/JAN/20	20:58	8.05		
21/JAN/20	20:59	8.04		
21/JAN/20	21:00	8.06	2.233	61.853
21/JAN/20	21:01	8.06		
21/JAN/20	21:02	8.06		

21/JAN/20	21:03	8.07		
21/JAN/20	21:04	8.06		
21/JAN/20	21:05	8.06	2.188	59.359
21/JAN/20	21:06	8.07		
21/JAN/20	21:07	8.07		
21/JAN/20	21:08	8.05		
21/JAN/20	21:09	8.05		
21/JAN/20	21:10	8.02	2.158	57.740
21/JAN/20	21:11	8.00		
21/JAN/20	21:12	7.97		
21/JAN/20	21:13	7.94		
21/JAN/20	21:14	7.91		
21/JAN/20	21:15	7.96	2.071	53.116
21/JAN/20	21:16	7.91		
21/JAN/20	21:17	7.87		
21/JAN/20	21:18	7.88		
21/JAN/20	21:19	7.89		
21/JAN/20	21:20	7.88	2.407	71.990
21/JAN/20	21:21	7.88		
21/JAN/20	21:22	7.89		
21/JAN/20	21:23	7.92		
21/JAN/20	21:24	7.93		
21/JAN/20	21:25	7.94	2.127	56.066
21/JAN/20	21:26	7.94		
21/JAN/20	21:27	7.92		
21/JAN/20	21:28	7.91		
21/JAN/20	21:29	7.87		
21/JAN/20	21:30	7.84	2.096	54.436
21/JAN/20	21:31	7.82		
21/JAN/20	21:32	7.81		
21/JAN/20	21:33	7.81		
21/JAN/20	21:34	7.81		
21/JAN/20	21:35	7.80	2.256	63.150
21/JAN/20	21:36	7.80		
21/JAN/20	21:37	7.79		
21/JAN/20	21:38	7.77		
21/JAN/20	21:39	7.77		
21/JAN/20	21:40	7.82	2.349	68.538
21/JAN/20	21:41	7.80		
21/JAN/20	21:42	7.75		
21/JAN/20	21:43	7.69		
21/JAN/20	21:44	7.66		
21/JAN/20	21:45	7.67	2.704	90.851
21/JAN/20	21:46	7.77		
21/JAN/20	21:47	7.99		
21/JAN/20	21:48	8.12		
21/JAN/20	21:49	8.22		
21/JAN/20	21:50	8.25	2.526	79.285
21/JAN/20	21:51	8.25		
21/JAN/20	21:52	8.25		
21/JAN/20	21:53	8.25		
21/JAN/20	21:54	8.23		
21/JAN/20	21:55	8.21	2.215	60.893
21/JAN/20	21:56	8.20		
21/JAN/20	21:57	8.17		
21/JAN/20	21:58	8.09		
21/JAN/20	21:59	7.98		
21/JAN/20	22:00	7.84	2.649	87.218
21/JAN/20	22:01	7.74		
21/JAN/20	22:02	7.68		
21/JAN/20	22:03	7.67		
21/JAN/20	22:04	7.72		
21/JAN/20	22:05	7.77	2.683	89.406

21/JAN/20	22:06	7.81		
21/JAN/20	22:07	7.84		
21/JAN/20	22:08	7.89		
21/JAN/20	22:09	7.90		
21/JAN/20	22:10	7.93	2.413	72.371
21/JAN/20	22:11	7.94		
21/JAN/20	22:12	7.95		
21/JAN/20	22:13	7.95		
21/JAN/20	22:14	7.94		
21/JAN/20	22:15	7.92	2.127	56.079
21/JAN/20	22:16	7.90		
21/JAN/20	22:17	7.87		
21/JAN/20	22:18	7.83		
21/JAN/20	22:19	7.78		
21/JAN/20	22:20	7.73	2.389	70.897
21/JAN/20	22:21	7.69		
21/JAN/20	22:22	7.72		
21/JAN/20	22:23	7.93		
21/JAN/20	22:24	8.11		
21/JAN/20	22:25	8.13	2.295	65.385
21/JAN/20	22:26	8.05		
21/JAN/20	22:27	7.98		
21/JAN/20	22:28	7.92		
21/JAN/20	22:29	7.86		
21/JAN/20	22:30	7.86	2.402	71.692
21/JAN/20	22:31	7.84		
21/JAN/20	22:32	7.80		
21/JAN/20	22:33	7.79		
21/JAN/20	22:34	7.79		
21/JAN/20	22:35	7.76	2.252	62.949
21/JAN/20	22:36	7.75		
21/JAN/20	22:37	7.73		
21/JAN/20	22:38	7.71		
21/JAN/20	22:39	7.69		
21/JAN/20	22:40	7.67	2.210	60.587
21/JAN/20	22:41	7.66		
21/JAN/20	22:42	7.63		
21/JAN/20	22:43	7.66		
21/JAN/20	22:44	7.65		
21/JAN/20	22:45	7.64	2.106	54.945
21/JAN/20	22:46	7.64		
21/JAN/20	22:47	7.64		
21/JAN/20	22:48	7.63		
21/JAN/20	22:49	7.63		
21/JAN/20	22:50	7.63	2.308	66.155
21/JAN/20	22:51	7.63		
21/JAN/20	22:52	7.64		
21/JAN/20	22:53	7.62		
21/JAN/20	22:54	7.58		
21/JAN/20	22:55	7.54	2.348	68.501
21/JAN/20	22:56	7.51		
21/JAN/20	22:57	7.49		
21/JAN/20	22:58	7.49		
21/JAN/20	22:59	7.49		
21/JAN/20	23:00	7.47	2.472	75.949
21/JAN/20	23:01	7.48		
21/JAN/20	23:02	7.51		
21/JAN/20	23:03	7.52		
21/JAN/20	23:04	7.49		
21/JAN/20	23:05	7.44	2.310	66.263
21/JAN/20	23:06	7.43		
21/JAN/20	23:07	7.51		
21/JAN/20	23:08	7.58		

21/JAN/20	23:09	7.70		
21/JAN/20	23:10	7.87	2.511	78.348
21/JAN/20	23:11	7.98		
21/JAN/20	23:12	8.05		
21/JAN/20	23:13	8.07		
21/JAN/20	23:14	8.08		
21/JAN/20	23:15	8.08	2.414	72.390
21/JAN/20	23:16	8.06		
21/JAN/20	23:17	8.03		
21/JAN/20	23:18	7.99		
21/JAN/20	23:19	7.95		
21/JAN/20	23:20	7.90	1.996	49.278
21/JAN/20	23:21	7.86		
21/JAN/20	23:22	7.82		
21/JAN/20	23:23	7.78		
21/JAN/20	23:24	7.75		
21/JAN/20	23:25	7.73	2.140	56.768
21/JAN/20	23:26	7.71		
21/JAN/20	23:27	7.66		
21/JAN/20	23:28	7.62		
21/JAN/20	23:29	7.62		
21/JAN/20	23:30	7.77	2.202	60.151
21/JAN/20	23:31	8.02		
21/JAN/20	23:32	7.85		
21/JAN/20	23:33	7.69		
21/JAN/20	23:34	7.64		
21/JAN/20	23:35	7.63	2.050	52.039
21/JAN/20	23:36	7.61		
21/JAN/20	23:37	7.63		
21/JAN/20	23:38	7.63		
21/JAN/20	23:39	7.64		
21/JAN/20	23:40	7.64	2.094	54.330
21/JAN/20	23:41	7.64		
21/JAN/20	23:42	7.66		
21/JAN/20	23:43	7.65		
21/JAN/20	23:44	7.64		
21/JAN/20	23:45	7.64	2.250	62.817
21/JAN/20	23:46	7.65		
21/JAN/20	23:47	7.69		
21/JAN/20	23:48	7.69		
21/JAN/20	23:49	7.66		
21/JAN/20	23:50	7.63	2.109	55.121
21/JAN/20	23:51	7.60		
21/JAN/20	23:52	7.59		
21/JAN/20	23:53	7.57		
21/JAN/20	23:54	7.56		
21/JAN/20	23:55	7.56	2.292	65.228
21/JAN/20	23:56	7.56		
21/JAN/20	23:57	7.56		
21/JAN/20	23:58	7.58		
21/JAN/20	23:59	7.60		
22/JAN/20	00:00	7.61	2.144	57.001

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Day Report - 21/JAN/20
Tuesday

Site Id: 20200121

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	pH/ORP (pH)	Level (in.)	Flow 1 (gpm)
Minimum:	6.64	1.996	49.278
	05:50	23:20	23:20

Maximum:	10.01	5.167	307.885
	12:22	11:55	11:55
Average:	----	2.729	95.599

Total Flow1: 13766.310 (gal) x10

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Logged Readings

Site Id: 20200121

Date	Time	pH/ORP (pH)	Level (in.)	Flow 1 (gpm)
22/JAN/20	00:01	7.63		
22/JAN/20	00:02	7.66		
22/JAN/20	00:03	7.63		
22/JAN/20	00:04	7.61		
22/JAN/20	00:05	7.61	2.012	50.095
22/JAN/20	00:06	7.60		
22/JAN/20	00:07	7.60		
22/JAN/20	00:08	7.61		
22/JAN/20	00:09	7.63		
22/JAN/20	00:10	7.65	2.080	53.582
22/JAN/20	00:11	7.59		
22/JAN/20	00:12	7.53		
22/JAN/20	00:13	7.54		
22/JAN/20	00:14	7.58		
22/JAN/20	00:15	7.55	2.028	50.887
22/JAN/20	00:16	7.57		
22/JAN/20	00:17	7.54		
22/JAN/20	00:18	7.62		
22/JAN/20	00:19	7.63		
22/JAN/20	00:20	7.61	2.030	50.978
22/JAN/20	00:21	7.60		
22/JAN/20	00:22	7.60		
22/JAN/20	00:23	7.61		
22/JAN/20	00:24	7.61		
22/JAN/20	00:25	7.62	2.077	53.435
22/JAN/20	00:26	7.61		
22/JAN/20	00:27	7.61		
22/JAN/20	00:28	7.65		
22/JAN/20	00:29	7.66		
22/JAN/20	00:30	7.70	2.148	57.209
22/JAN/20	00:31	7.75		
22/JAN/20	00:32	7.71		
22/JAN/20	00:33	7.67		
22/JAN/20	00:34	7.60		
22/JAN/20	00:35	7.51	2.190	59.517
22/JAN/20	00:36	7.58		
22/JAN/20	00:37	7.61		
22/JAN/20	00:38	7.57		
22/JAN/20	00:39	7.52		
22/JAN/20	00:40	7.48	2.123	55.871
22/JAN/20	00:41	7.44		
22/JAN/20	00:42	7.45		
22/JAN/20	00:43	7.54		
22/JAN/20	00:44	7.60		
22/JAN/20	00:45	7.67	2.470	75.799
22/JAN/20	00:46	7.73		
22/JAN/20	00:47	7.73		
22/JAN/20	00:48	7.73		
22/JAN/20	00:49	7.71		
22/JAN/20	00:50	7.69	2.106	54.949

22/JAN/20	00:51	7.69		
22/JAN/20	00:52	7.68		
22/JAN/20	00:53	7.68		
22/JAN/20	00:54	7.68		
22/JAN/20	00:55	7.69	2.161	57.878
22/JAN/20	00:56	7.67		
22/JAN/20	00:57	7.65		
22/JAN/20	00:58	7.60		
22/JAN/20	00:59	7.51		
22/JAN/20	01:00	7.50	2.352	68.741
22/JAN/20	01:01	7.50		
22/JAN/20	01:02	7.48		
22/JAN/20	01:03	7.44		
22/JAN/20	01:04	7.41		
22/JAN/20	01:05	7.40	2.300	65.681
22/JAN/20	01:06	7.42		
22/JAN/20	01:07	7.46		
22/JAN/20	01:08	7.55		
22/JAN/20	01:09	7.62		
22/JAN/20	01:10	7.66	2.055	52.285
22/JAN/20	01:11	7.69		
22/JAN/20	01:12	7.70		
22/JAN/20	01:13	7.72		
22/JAN/20	01:14	7.76		
22/JAN/20	01:15	7.78	1.958	47.372
22/JAN/20	01:16	7.78		
22/JAN/20	01:17	7.78		
22/JAN/20	01:18	7.77		
22/JAN/20	01:19	7.75		
22/JAN/20	01:20	7.77	2.092	54.216
22/JAN/20	01:21	7.73		
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22/JAN/20	08:37	7.52		
22/JAN/20	08:38	7.50		
22/JAN/20	08:39	7.59		
22/JAN/20	08:40	7.78	2.310	66.290
22/JAN/20	08:41	7.85		
22/JAN/20	08:42	7.85		
22/JAN/20	08:43	7.90		
22/JAN/20	08:44	7.91		
22/JAN/20	08:45	7.83	2.203	60.190
22/JAN/20	08:46	7.79		
22/JAN/20	08:47	7.79		
22/JAN/20	08:48	7.78		
22/JAN/20	08:49	7.78		
22/JAN/20	08:50	7.82	2.349	68.556
22/JAN/20	08:51	7.88		
22/JAN/20	08:52	7.84		
22/JAN/20	08:53	7.85		
22/JAN/20	08:54	7.84		
22/JAN/20	08:55	7.77	2.733	92.777
22/JAN/20	08:56	7.73		
22/JAN/20	08:57	7.69		
22/JAN/20	08:58	7.70		
22/JAN/20	08:59	7.75		
22/JAN/20	09:00	7.76	2.509	78.234
22/JAN/20	09:01	7.77		
22/JAN/20	09:02	7.79		
22/JAN/20	09:03	7.79		
22/JAN/20	09:04	7.82		
22/JAN/20	09:05	7.88	2.507	78.120
22/JAN/20	09:06	7.91		
22/JAN/20	09:07	7.91		
22/JAN/20	09:08	7.93		
22/JAN/20	09:09	7.95		
22/JAN/20	09:10	7.97	2.588	83.228
22/JAN/20	09:11	7.93		
22/JAN/20	09:12	7.86		
22/JAN/20	09:13	7.82		
22/JAN/20	09:14	7.82		

22/JAN/20	09:15	7.84	2.525	79.263
22/JAN/20	09:16	7.90		
22/JAN/20	09:17	7.95		
22/JAN/20	09:18	8.01		
22/JAN/20	09:19	8.05		
22/JAN/20	09:20	8.11	2.386	70.734
22/JAN/20	09:21	8.14		
22/JAN/20	09:22	8.12		
22/JAN/20	09:23	8.12		
22/JAN/20	09:24	8.14		
22/JAN/20	09:25	8.18	2.475	76.130
22/JAN/20	09:26	8.19		
22/JAN/20	09:27	8.15		
22/JAN/20	09:28	8.13		
22/JAN/20	09:29	8.10		
22/JAN/20	09:30	8.04	2.767	95.063
22/JAN/20	09:31	7.98		
22/JAN/20	09:32	8.00		
22/JAN/20	09:33	8.05		
22/JAN/20	09:34	8.14		
22/JAN/20	09:35	8.17	2.898	104.172
22/JAN/20	09:36	8.09		
22/JAN/20	09:37	8.02		
22/JAN/20	09:38	8.00		
22/JAN/20	09:39	8.01		
22/JAN/20	09:40	8.01	3.026	113.420
22/JAN/20	09:41	7.98		
22/JAN/20	09:42	7.95		
22/JAN/20	09:43	8.06		
22/JAN/20	09:44	8.06		
22/JAN/20	09:45	7.80	3.002	111.649
22/JAN/20	09:46	7.70		
22/JAN/20	09:47	7.70		
22/JAN/20	09:48	7.57		
22/JAN/20	09:49	7.66		
22/JAN/20	09:50	7.85	3.701	167.285
22/JAN/20	09:51	7.90		
22/JAN/20	09:52	7.81		
22/JAN/20	09:53	7.73		
22/JAN/20	09:54	7.73		
22/JAN/20	09:55	7.78	3.208	127.073
22/JAN/20	09:56	7.79		
22/JAN/20	09:57	7.82		
22/JAN/20	09:58	7.85		
22/JAN/20	09:59	7.89		
22/JAN/20	10:00	7.90	2.937	106.945
22/JAN/20	10:01	7.95		
22/JAN/20	10:02	7.96		
22/JAN/20	10:03	7.97		
22/JAN/20	10:04	8.03		
22/JAN/20	10:05	8.06	2.766	95.026
22/JAN/20	10:06	8.11		
22/JAN/20	10:07	8.18		
22/JAN/20	10:08	8.19		
22/JAN/20	10:09	8.18		
22/JAN/20	10:10	8.18	2.607	84.483
22/JAN/20	10:11	8.21		
22/JAN/20	10:12	8.26		
22/JAN/20	10:13	8.31		
22/JAN/20	10:14	8.36		
22/JAN/20	10:15	8.37	2.435	73.664
22/JAN/20	10:16	8.39		
22/JAN/20	10:17	8.38		

22/JAN/20	10:18	8.37		
22/JAN/20	10:19	8.35		
22/JAN/20	10:20	8.32	2.427	73.189
22/JAN/20	10:21	8.27		
22/JAN/20	10:22	8.19		
22/JAN/20	10:23	8.25		
22/JAN/20	10:24	8.25		
22/JAN/20	10:25	8.33	2.712	91.364
22/JAN/20	10:26	8.31		
22/JAN/20	10:27	8.32		
22/JAN/20	10:28	8.31		
22/JAN/20	10:29	8.29		
22/JAN/20	10:30	8.30	2.616	85.014
22/JAN/20	10:31	8.33		
22/JAN/20	10:32	8.36		
22/JAN/20	10:33	8.39		
22/JAN/20	10:34	8.39		
22/JAN/20	10:35	8.39	2.492	77.181
22/JAN/20	10:36	8.43		
22/JAN/20	10:37	8.45		
22/JAN/20	10:38	8.48		
22/JAN/20	10:39	8.48		
22/JAN/20	10:40	8.49	2.975	109.669
22/JAN/20	10:41	8.46		
22/JAN/20	10:42	8.44		
22/JAN/20	10:43	8.36		
22/JAN/20	10:44	8.32		
22/JAN/20	10:45	8.32	2.700	90.588
22/JAN/20	10:46	8.35		
22/JAN/20	10:47	8.38		
22/JAN/20	10:48	8.40		
22/JAN/20	10:49	8.43		
22/JAN/20	10:50	8.45	2.564	81.683
22/JAN/20	10:51	8.47		
22/JAN/20	10:52	8.50		
22/JAN/20	10:53	8.54		
22/JAN/20	10:54	8.57		
22/JAN/20	10:55	8.58	2.783	96.157
22/JAN/20	10:56	8.58		
22/JAN/20	10:57	8.58		
22/JAN/20	10:58	8.58		
22/JAN/20	10:59	8.56		
22/JAN/20	11:00	8.53	2.607	84.434
22/JAN/20	11:01	8.52		
22/JAN/20	11:02	8.49		
22/JAN/20	11:03	8.46		
22/JAN/20	11:04	8.45		
22/JAN/20	11:05	8.47	2.479	76.387
22/JAN/20	11:06	8.47		
22/JAN/20	11:07	8.46		
22/JAN/20	11:08	8.43		
22/JAN/20	11:09	8.42		
22/JAN/20	11:10	8.45	2.611	84.716
22/JAN/20	11:11	8.47		
22/JAN/20	11:12	8.46		
22/JAN/20	11:13	8.46		
22/JAN/20	11:14	8.46		
22/JAN/20	11:15	8.46	2.717	91.671
22/JAN/20	11:16	8.47		
22/JAN/20	11:17	8.49		
22/JAN/20	11:18	8.50		
22/JAN/20	11:19	8.51		
22/JAN/20	11:20	8.48	2.758	94.434

22/JAN/20	11:21	8.43		
22/JAN/20	11:22	8.39		
22/JAN/20	11:23	8.29		
22/JAN/20	11:24	8.31		
22/JAN/20	11:25	8.31	3.370	139.805
22/JAN/20	11:26	8.33		
22/JAN/20	11:27	8.36		
22/JAN/20	11:28	8.37		
22/JAN/20	11:29	8.30		
22/JAN/20	11:30	8.22	3.003	111.706
22/JAN/20	11:31	8.27		
22/JAN/20	11:32	8.37		
22/JAN/20	11:33	8.46		
22/JAN/20	11:34	8.49		
22/JAN/20	11:35	8.50	3.122	120.541
22/JAN/20	11:36	8.52		
22/JAN/20	11:37	8.53		
22/JAN/20	11:38	8.48		
22/JAN/20	11:39	8.35		
22/JAN/20	11:40	8.33	2.797	97.116
22/JAN/20	11:41	8.35		
22/JAN/20	11:42	8.36		
22/JAN/20	11:43	8.38		
22/JAN/20	11:44	8.40		
22/JAN/20	11:45	8.39	2.609	84.605
22/JAN/20	11:46	8.39		

Started pH checks

22/JAN/20	11:47	7.93		
22/JAN/20	11:48	7.14		
22/JAN/20	11:49	7.11		
22/JAN/20	11:50	8.43	2.751	93.960
22/JAN/20	11:51	10.02		
22/JAN/20	11:52	10.02		
22/JAN/20	11:53	10.03		
22/JAN/20	11:54	10.04		
22/JAN/20	11:55	10.04	3.137	121.710

Finished pH checks

22/JAN/20	11:56	8.81		
22/JAN/20	11:57	8.75		
22/JAN/20	11:58	8.67		
22/JAN/20	11:59	8.66		
22/JAN/20	12:00	8.65	3.064	116.193
22/JAN/20	12:01	8.62		
22/JAN/20	12:02	8.64		
22/JAN/20	12:03	8.63		
22/JAN/20	12:04	8.58		
22/JAN/20	12:05	8.56	3.053	115.363
22/JAN/20	12:06	8.53		
22/JAN/20	12:07	8.52		
22/JAN/20	12:08	8.52		
22/JAN/20	12:09	8.56		
22/JAN/20	12:10	8.57	3.478	148.540
22/JAN/20	12:11	8.57		
22/JAN/20	12:12	8.58		
22/JAN/20	12:13	8.59		
22/JAN/20	12:14	8.61		

22/JAN/20	12:15	8.62	3.408	142.865
22/JAN/20	12:16	8.60		
22/JAN/20	12:17	8.58		
22/JAN/20	12:18	8.55		
22/JAN/20	12:19	8.56		
22/JAN/20	12:20	8.57	3.124	120.734
22/JAN/20	12:21	8.56		
22/JAN/20	12:22	8.59		
22/JAN/20	12:23	8.62		
22/JAN/20	12:24	8.63		
22/JAN/20	12:25	8.64	2.800	97.346
22/JAN/20	12:26	8.65		
22/JAN/20	12:27	8.63		
22/JAN/20	12:28	8.61		
22/JAN/20	12:29	8.60		
22/JAN/20	12:30	8.60	2.881	102.981
22/JAN/20	12:31	8.62		
22/JAN/20	12:32	8.63		
22/JAN/20	12:33	8.61		
22/JAN/20	12:34	8.58		
22/JAN/20	12:35	8.57	2.735	92.905
22/JAN/20	12:36	8.55		
22/JAN/20	12:37	8.55		
22/JAN/20	12:38	8.56		
22/JAN/20	12:39	8.58		
22/JAN/20	12:40	8.59	2.836	99.842
22/JAN/20	12:41	8.60		
22/JAN/20	12:42	8.62		
22/JAN/20	12:43	8.63		
22/JAN/20	12:44	8.65		
22/JAN/20	12:45	8.66	2.617	85.120
22/JAN/20	12:46	8.67		
22/JAN/20	12:47	8.68		
22/JAN/20	12:48	8.69		
22/JAN/20	12:49	8.68		
22/JAN/20	12:50	8.68	2.454	74.845
22/JAN/20	12:51	8.67		
22/JAN/20	12:52	8.67		
22/JAN/20	12:53	8.64		
22/JAN/20	12:54	8.66		
22/JAN/20	12:55	8.67	2.658	87.785
22/JAN/20	12:56	8.67		
22/JAN/20	12:57	8.65		
22/JAN/20	12:58	8.58		
22/JAN/20	12:59	8.58		
22/JAN/20	13:00	8.58	3.069	116.587
22/JAN/20	13:01	8.56		
22/JAN/20	13:02	8.58		
22/JAN/20	13:03	8.62		
22/JAN/20	13:04	8.61		
22/JAN/20	13:05	8.55	3.432	144.799
22/JAN/20	13:06	8.48		
22/JAN/20	13:07	8.41		
22/JAN/20	13:08	8.38		
22/JAN/20	13:09	8.36		
22/JAN/20	13:10	8.38	3.114	119.947
22/JAN/20	13:11	8.41		
22/JAN/20	13:12	8.44		
22/JAN/20	13:13	8.48		
22/JAN/20	13:14	8.49		
22/JAN/20	13:15	8.52	3.034	113.992
22/JAN/20	13:16	8.58		
22/JAN/20	13:17	8.58		

22/JAN/20	13:18	8.59		
22/JAN/20	13:19	8.60		
22/JAN/20	13:20	8.58	2.914	105.302
22/JAN/20	13:21	8.55		
22/JAN/20	13:22	8.56		
22/JAN/20	13:23	8.57		
22/JAN/20	13:24	8.53		
22/JAN/20	13:25	8.57	2.860	101.466
22/JAN/20	13:26	8.59		
22/JAN/20	13:27	8.61		
22/JAN/20	13:28	8.63		
22/JAN/20	13:29	8.65		
22/JAN/20	13:30	8.66	2.774	95.540
22/JAN/20	13:31	8.63		
22/JAN/20	13:32	8.66		
22/JAN/20	13:33	8.65		
22/JAN/20	13:34	8.59		
22/JAN/20	13:35	8.55	2.640	86.627
22/JAN/20	13:36	8.54		
22/JAN/20	13:37	8.58		
22/JAN/20	13:38	8.58		
22/JAN/20	13:39	8.53		
22/JAN/20	13:40	8.60	2.606	84.370
22/JAN/20	13:41	8.59		
22/JAN/20	13:42	8.60		
22/JAN/20	13:43	8.60		
22/JAN/20	13:44	8.63		
22/JAN/20	13:45	8.61	2.619	85.218
22/JAN/20	13:46	8.60		
22/JAN/20	13:47	8.61		
22/JAN/20	13:48	8.64		
22/JAN/20	13:49	8.62		
22/JAN/20	13:50	8.63	2.786	96.375
22/JAN/20	13:51	8.63		
22/JAN/20	13:52	8.62		
22/JAN/20	13:53	8.63		
22/JAN/20	13:54	8.62		
22/JAN/20	13:55	8.61	2.665	88.219
22/JAN/20	13:56	8.64		
22/JAN/20	13:57	8.67		
22/JAN/20	13:58	8.66		
22/JAN/20	13:59	8.64		
22/JAN/20	14:00	8.63	3.016	112.693
22/JAN/20	14:01	8.61		
22/JAN/20	14:02	8.57		
22/JAN/20	14:03	8.54		
22/JAN/20	14:04	8.42		
22/JAN/20	14:05	8.49	3.278	132.569
22/JAN/20	14:06	8.42		
22/JAN/20	14:07	8.41		
22/JAN/20	14:08	8.43		
22/JAN/20	14:09	8.44		
22/JAN/20	14:10	8.48	3.344	137.744
22/JAN/20	14:11	8.48		
22/JAN/20	14:12	8.50		
22/JAN/20	14:13	8.50		
22/JAN/20	14:14	8.53		
22/JAN/20	14:15	8.53	2.992	110.891
22/JAN/20	14:16	8.55		
22/JAN/20	14:17	8.56		
22/JAN/20	14:18	8.58		
22/JAN/20	14:19	8.60		
22/JAN/20	14:20	8.65	2.882	103.015

22/JAN/20	14:21	8.68		
22/JAN/20	14:22	8.70		
22/JAN/20	14:23	8.64		
22/JAN/20	14:24	8.61		
22/JAN/20	14:25	8.59	3.212	127.376
22/JAN/20	14:26	8.57		
22/JAN/20	14:27	8.56		
22/JAN/20	14:28	8.59		
22/JAN/20	14:29	8.57		
22/JAN/20	14:30	8.55	2.829	99.352
22/JAN/20	14:31	8.57		
22/JAN/20	14:32	8.57		
22/JAN/20	14:33	8.58		
22/JAN/20	14:34	8.59		
22/JAN/20	14:35	8.54	2.584	83.004
22/JAN/20	14:36	8.57		
22/JAN/20	14:37	8.55		
22/JAN/20	14:38	8.54		
22/JAN/20	14:39	8.53		
22/JAN/20	14:40	8.52	2.446	74.364
22/JAN/20	14:41	8.51		
22/JAN/20	14:42	8.53		
22/JAN/20	14:43	8.57		
22/JAN/20	14:44	8.56		
22/JAN/20	14:45	8.58	2.317	66.683
22/JAN/20	14:46	8.57		
22/JAN/20	14:47	8.60		
22/JAN/20	14:48	8.56		
22/JAN/20	14:49	8.55		
22/JAN/20	14:50	8.56	2.451	74.665
22/JAN/20	14:51	8.53		
22/JAN/20	14:52	8.51		
22/JAN/20	14:53	8.51		
22/JAN/20	14:54	8.50		
22/JAN/20	14:55	8.54	2.507	78.081
22/JAN/20	14:56	8.59		
22/JAN/20	14:57	8.64		
22/JAN/20	14:58	8.62		
22/JAN/20	14:59	8.64		
22/JAN/20	15:00	8.65	2.378	70.275
22/JAN/20	15:01	8.66		
22/JAN/20	15:02	8.67		
22/JAN/20	15:03	8.67		
22/JAN/20	15:04	8.65		
22/JAN/20	15:05	8.65	2.474	76.081
22/JAN/20	15:06	8.63		
22/JAN/20	15:07	8.67		
22/JAN/20	15:08	8.63		
22/JAN/20	15:09	8.61		
22/JAN/20	15:10	8.64	2.756	94.327
22/JAN/20	15:11	8.66		
22/JAN/20	15:12	8.66		
22/JAN/20	15:13	8.63		
22/JAN/20	15:14	8.59		
22/JAN/20	15:15	8.58	2.735	92.906
22/JAN/20	15:16	8.59		
22/JAN/20	15:17	8.62		
22/JAN/20	15:18	8.62		
22/JAN/20	15:19	8.57		
22/JAN/20	15:20	8.53	2.889	103.524
22/JAN/20	15:21	8.48		
22/JAN/20	15:22	8.46		
22/JAN/20	15:23	8.50		

22/JAN/20	15:24	8.49		
22/JAN/20	15:25	8.52	2.644	86.871
22/JAN/20	15:26	8.57		
22/JAN/20	15:27	8.59		
22/JAN/20	15:28	8.61		
22/JAN/20	15:29	8.60		
22/JAN/20	15:30	8.58	2.617	85.086
22/JAN/20	15:31	8.54		
22/JAN/20	15:32	8.56		
22/JAN/20	15:33	8.54		
22/JAN/20	15:34	8.54		
22/JAN/20	15:35	8.58	2.711	91.309
22/JAN/20	15:36	8.59		
22/JAN/20	15:37	8.58		
22/JAN/20	15:38	8.57		
22/JAN/20	15:39	8.62		
22/JAN/20	15:40	8.62	2.688	89.781
22/JAN/20	15:41	8.63		
22/JAN/20	15:42	8.66		
22/JAN/20	15:43	8.69		
22/JAN/20	15:44	8.67		
22/JAN/20	15:45	8.67	3.100	118.910
22/JAN/20	15:46	8.71		
22/JAN/20	15:47	8.66		
22/JAN/20	15:48	8.67		
22/JAN/20	15:49	8.66		
22/JAN/20	15:50	8.68	2.524	79.165
22/JAN/20	15:51	8.66		
22/JAN/20	15:52	8.66		
22/JAN/20	15:53	8.65		
22/JAN/20	15:54	8.66		
22/JAN/20	15:55	8.66	2.326	67.212
22/JAN/20	15:56	8.75		
22/JAN/20	15:57	8.73		
22/JAN/20	15:58	8.69		
22/JAN/20	15:59	8.66		
22/JAN/20	16:00	8.64	2.529	79.465
22/JAN/20	16:01	8.54		
22/JAN/20	16:02	8.39		
22/JAN/20	16:03	8.38		
22/JAN/20	16:04	8.49		
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22/JAN/20	23:24	7.58		
22/JAN/20	23:25	7.57	1.590	30.875
22/JAN/20	23:26	7.57		
22/JAN/20	23:27	7.56		
22/JAN/20	23:28	7.54		
22/JAN/20	23:29	7.52		
22/JAN/20	23:30	7.54	1.651	33.369
22/JAN/20	23:31	7.49		
22/JAN/20	23:32	7.49		
22/JAN/20	23:33	7.66		
22/JAN/20	23:34	7.79		
22/JAN/20	23:35	7.65	1.762	38.158
22/JAN/20	23:36	7.58		
22/JAN/20	23:37	7.57		
22/JAN/20	23:38	7.55		
22/JAN/20	23:39	7.53		
22/JAN/20	23:40	7.53	1.901	44.581
22/JAN/20	23:41	7.56		
22/JAN/20	23:42	7.57		
22/JAN/20	23:43	7.54		
22/JAN/20	23:44	7.51		
22/JAN/20	23:45	7.51	2.019	50.453
22/JAN/20	23:46	7.57		
22/JAN/20	23:47	7.68		

22/JAN/20	23:48	7.75		
22/JAN/20	23:49	7.76		
22/JAN/20	23:50	7.74	1.788	39.306
22/JAN/20	23:51	7.74		
22/JAN/20	23:52	7.74		
22/JAN/20	23:53	7.74		
22/JAN/20	23:54	7.72		
22/JAN/20	23:55	7.73	1.641	32.943
22/JAN/20	23:56	7.74		
22/JAN/20	23:57	7.75		
22/JAN/20	23:58	7.77		
22/JAN/20	23:59	7.85		
23/JAN/20	00:00	7.88	1.599	31.215

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Day Report - 22/JAN/20
Wednesday

Site Id: 20200121

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	pH/ORP (pH)	Level (in.)	Flow 1 (gpm)
Minimum:	7.02	1.531	28.561
	05:09	21:10	21:10
Maximum:	10.04	3.701	167.285
	11:54	09:50	09:50
Average:	----	2.380	73.318

Total Flow1: 10557.763 (gal) x10

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Logged Readings

Site Id: 20200121

Date	Time	pH/ORP (pH)	Level (in.)	Flow 1 (gpm)
23/JAN/20	00:01	7.88		
23/JAN/20	00:02	7.90		
23/JAN/20	00:03	7.83		
23/JAN/20	00:04	7.75		
23/JAN/20	00:05	7.68	1.539	28.872
23/JAN/20	00:06	7.60		
23/JAN/20	00:07	7.56		
23/JAN/20	00:08	7.52		
23/JAN/20	00:09	7.49		
23/JAN/20	00:10	7.46	1.615	31.869
23/JAN/20	00:11	7.46		
23/JAN/20	00:12	7.51		
23/JAN/20	00:13	7.50		
23/JAN/20	00:14	7.43		
23/JAN/20	00:15	7.37	2.099	54.597
23/JAN/20	00:16	7.32		
23/JAN/20	00:17	7.28		
23/JAN/20	00:18	7.25		
23/JAN/20	00:19	7.27		
23/JAN/20	00:20	7.30	1.939	46.447
23/JAN/20	00:21	7.32		
23/JAN/20	00:22	7.33		
23/JAN/20	00:23	7.33		
23/JAN/20	00:24	7.32		
23/JAN/20	00:25	7.31	1.790	39.411
23/JAN/20	00:26	7.29		

23/JAN/20	00:27	7.29		
23/JAN/20	00:28	7.27		
23/JAN/20	00:29	7.27		
23/JAN/20	00:30	7.27	1.668	34.070
23/JAN/20	00:31	7.28		
23/JAN/20	00:32	7.32		
23/JAN/20	00:33	7.40		
23/JAN/20	00:34	7.50		
23/JAN/20	00:35	7.58	1.610	31.696
23/JAN/20	00:36	7.64		
23/JAN/20	00:37	7.67		
23/JAN/20	00:38	7.67		
23/JAN/20	00:39	7.66		
23/JAN/20	00:40	7.64	1.592	30.951
23/JAN/20	00:41	7.61		
23/JAN/20	00:42	7.57		
23/JAN/20	00:43	7.53		
23/JAN/20	00:44	7.51		
23/JAN/20	00:45	7.63	1.564	29.849
23/JAN/20	00:46	7.57		
23/JAN/20	00:47	7.48		
23/JAN/20	00:48	7.41		
23/JAN/20	00:49	7.37		
23/JAN/20	00:50	7.33	1.592	30.937
23/JAN/20	00:51	7.30		
23/JAN/20	00:52	7.28		
23/JAN/20	00:53	7.28		
23/JAN/20	00:54	7.27		
23/JAN/20	00:55	7.27	1.588	30.788
23/JAN/20	00:56	7.26		
23/JAN/20	00:57	7.26		
23/JAN/20	00:58	7.25		
23/JAN/20	00:59	7.26		
23/JAN/20	01:00	7.26	1.575	30.283
23/JAN/20	01:01	7.32		
23/JAN/20	01:02	7.34		
23/JAN/20	01:03	7.33		
23/JAN/20	01:04	7.31		
23/JAN/20	01:05	7.30	1.603	31.413
23/JAN/20	01:06	7.30		
23/JAN/20	01:07	7.30		
23/JAN/20	01:08	7.31		
23/JAN/20	01:09	7.31		
23/JAN/20	01:10	7.30	1.634	32.680
23/JAN/20	01:11	7.29		
23/JAN/20	01:12	7.27		
23/JAN/20	01:13	7.25		
23/JAN/20	01:14	7.23		
23/JAN/20	01:15	7.23	1.695	35.216
23/JAN/20	01:16	7.22		
23/JAN/20	01:17	7.21		
23/JAN/20	01:18	7.21		
23/JAN/20	01:19	7.20		
23/JAN/20	01:20	7.19	1.663	33.856
23/JAN/20	01:21	7.19		
23/JAN/20	01:22	7.18		
23/JAN/20	01:23	7.19		
23/JAN/20	01:24	7.18		
23/JAN/20	01:25	7.18	1.631	32.548
23/JAN/20	01:26	7.19		
23/JAN/20	01:27	7.19		
23/JAN/20	01:28	7.25		
23/JAN/20	01:29	7.63		

23/JAN/20	01:30	7.70	1.594	31.051
23/JAN/20	01:31	7.59		
23/JAN/20	01:32	7.48		
23/JAN/20	01:33	7.40		
23/JAN/20	01:34	7.33		
23/JAN/20	01:35	7.30	1.572	30.151
23/JAN/20	01:36	7.28		
23/JAN/20	01:37	7.27		
23/JAN/20	01:38	7.26		
23/JAN/20	01:39	7.26		
23/JAN/20	01:40	7.24	1.556	29.501
23/JAN/20	01:41	7.24		
23/JAN/20	01:42	7.23		
23/JAN/20	01:43	7.22		
23/JAN/20	01:44	7.21		
23/JAN/20	01:45	7.22	1.694	35.205
23/JAN/20	01:46	7.22		
23/JAN/20	01:47	7.21		
23/JAN/20	01:48	7.19		
23/JAN/20	01:49	7.17		
23/JAN/20	01:50	7.16	1.937	46.347
23/JAN/20	01:51	7.12		
23/JAN/20	01:52	7.03		
23/JAN/20	01:53	6.97		
23/JAN/20	01:54	6.96		
23/JAN/20	01:55	6.95	1.791	39.467
23/JAN/20	01:56	6.94		
23/JAN/20	01:57	6.94		
23/JAN/20	01:58	6.95		
23/JAN/20	01:59	6.97		
23/JAN/20	02:00	6.99	1.708	35.798
23/JAN/20	02:01	7.02		
23/JAN/20	02:02	7.05		
23/JAN/20	02:03	7.07		
23/JAN/20	02:04	7.10		
23/JAN/20	02:05	7.13	1.650	33.346
23/JAN/20	02:06	7.16		
23/JAN/20	02:07	7.18		
23/JAN/20	02:08	7.20		
23/JAN/20	02:09	7.20		
23/JAN/20	02:10	7.22	1.657	33.633
23/JAN/20	02:11	7.34		
23/JAN/20	02:12	7.40		
23/JAN/20	02:13	7.31		
23/JAN/20	02:14	7.26		
23/JAN/20	02:15	7.22	1.652	33.417
23/JAN/20	02:16	7.20		
23/JAN/20	02:17	7.19		
23/JAN/20	02:18	7.18		
23/JAN/20	02:19	7.17		
23/JAN/20	02:20	7.16	1.681	34.623
23/JAN/20	02:21	7.17		
23/JAN/20	02:22	7.16		
23/JAN/20	02:23	7.17		
23/JAN/20	02:24	7.18		
23/JAN/20	02:25	7.17	2.092	54.235
23/JAN/20	02:26	7.16		
23/JAN/20	02:27	7.15		
23/JAN/20	02:28	7.13		
23/JAN/20	02:29	7.10		
23/JAN/20	02:30	7.10	2.142	56.900
23/JAN/20	02:31	7.11		
23/JAN/20	02:32	7.11		

23/JAN/20	02:33	7.10		
23/JAN/20	02:34	7.08		
23/JAN/20	02:35	7.06	1.915	45.250
23/JAN/20	02:36	7.05		
23/JAN/20	02:37	7.05		
23/JAN/20	02:38	7.05		
23/JAN/20	02:39	7.06		
23/JAN/20	02:40	7.06	1.958	47.374
23/JAN/20	02:41	7.08		
23/JAN/20	02:42	7.08		
23/JAN/20	02:43	7.08		
23/JAN/20	02:44	7.10		
23/JAN/20	02:45	7.11	2.063	52.689
23/JAN/20	02:46	7.13		
23/JAN/20	02:47	7.16		
23/JAN/20	02:48	7.18		
23/JAN/20	02:49	7.19		
23/JAN/20	02:50	7.21	1.852	42.249
23/JAN/20	02:51	7.22		
23/JAN/20	02:52	7.22		
23/JAN/20	02:53	7.21		
23/JAN/20	02:54	7.21		
23/JAN/20	02:55	7.21	2.003	49.634
23/JAN/20	02:56	7.21		
23/JAN/20	02:57	7.19		
23/JAN/20	02:58	7.18		
23/JAN/20	02:59	7.17		
23/JAN/20	03:00	7.16	2.058	52.448
23/JAN/20	03:01	7.15		
23/JAN/20	03:02	7.15		
23/JAN/20	03:03	7.15		
23/JAN/20	03:04	7.15		
23/JAN/20	03:05	7.13	1.941	46.543
23/JAN/20	03:06	7.19		
23/JAN/20	03:07	7.25		
23/JAN/20	03:08	7.25		
23/JAN/20	03:09	7.23		
23/JAN/20	03:10	7.21	2.047	51.854
23/JAN/20	03:11	7.20		
23/JAN/20	03:12	7.19		
23/JAN/20	03:13	7.20		
23/JAN/20	03:14	7.26		
23/JAN/20	03:15	7.32	2.225	61.454
23/JAN/20	03:16	7.35		
23/JAN/20	03:17	7.35		
23/JAN/20	03:18	7.34		
23/JAN/20	03:19	7.32		
23/JAN/20	03:20	7.27	2.189	59.447
23/JAN/20	03:21	7.22		
23/JAN/20	03:22	7.21		
23/JAN/20	03:23	7.20		
23/JAN/20	03:24	7.21		
23/JAN/20	03:25	7.22	1.924	45.704
23/JAN/20	03:26	7.24		
23/JAN/20	03:27	7.25		
23/JAN/20	03:28	7.27		
23/JAN/20	03:29	7.28		
23/JAN/20	03:30	7.29	1.998	49.351
23/JAN/20	03:31	7.30		
23/JAN/20	03:32	7.31		
23/JAN/20	03:33	7.31		
23/JAN/20	03:34	7.31		
23/JAN/20	03:35	7.32	2.098	54.511

23/JAN/20	03:36	7.31		
23/JAN/20	03:37	7.31		
23/JAN/20	03:38	7.31		
23/JAN/20	03:39	7.31		
23/JAN/20	03:40	7.31	2.135	56.517
23/JAN/20	03:41	7.31		
23/JAN/20	03:42	7.30		
23/JAN/20	03:43	7.29		
23/JAN/20	03:44	7.28		
23/JAN/20	03:45	7.28	2.045	51.740
23/JAN/20	03:46	7.27		
23/JAN/20	03:47	7.27		
23/JAN/20	03:48	7.25		
23/JAN/20	03:49	7.25		
23/JAN/20	03:50	7.23	1.879	43.564
23/JAN/20	03:51	7.19		
23/JAN/20	03:52	7.15		
23/JAN/20	03:53	7.13		
23/JAN/20	03:54	7.12		
23/JAN/20	03:55	7.18	2.125	55.981
23/JAN/20	03:56	7.23		
23/JAN/20	03:57	7.21		
23/JAN/20	03:58	7.16		
23/JAN/20	03:59	7.13		
23/JAN/20	04:00	7.11	1.978	48.382
23/JAN/20	04:01	7.09		
23/JAN/20	04:02	7.09		
23/JAN/20	04:03	7.08		
23/JAN/20	04:04	7.09		
23/JAN/20	04:05	7.09	1.985	48.701
23/JAN/20	04:06	7.10		
23/JAN/20	04:07	7.10		
23/JAN/20	04:08	7.12		
23/JAN/20	04:09	7.17		
23/JAN/20	04:10	7.26	1.923	45.633
23/JAN/20	04:11	7.40		
23/JAN/20	04:12	7.51		
23/JAN/20	04:13	7.59		
23/JAN/20	04:14	7.65		
23/JAN/20	04:15	7.68	1.796	39.703
23/JAN/20	04:16	7.70		
23/JAN/20	04:17	7.70		
23/JAN/20	04:18	7.69		
23/JAN/20	04:19	7.67		
23/JAN/20	04:20	7.66	1.961	47.493
23/JAN/20	04:21	7.64		
23/JAN/20	04:22	7.62		
23/JAN/20	04:23	7.61		
23/JAN/20	04:24	7.59		
23/JAN/20	04:25	7.59	2.061	52.610
23/JAN/20	04:26	7.56		
23/JAN/20	04:27	7.56		
23/JAN/20	04:28	7.54		
23/JAN/20	04:29	7.53		
23/JAN/20	04:30	7.51	2.036	51.288
23/JAN/20	04:31	7.49		
23/JAN/20	04:32	7.48		
23/JAN/20	04:33	7.47		
23/JAN/20	04:34	7.44		
23/JAN/20	04:35	7.41	1.920	45.491
23/JAN/20	04:36	7.38		
23/JAN/20	04:37	7.36		
23/JAN/20	04:38	7.33		

23/JAN/20	04:39	7.31		
23/JAN/20	04:40	7.29	1.895	44.283
23/JAN/20	04:41	7.28		
23/JAN/20	04:42	7.26		
23/JAN/20	04:43	7.25		
23/JAN/20	04:44	7.22		
23/JAN/20	04:45	7.19	2.142	56.867
23/JAN/20	04:46	7.17		
23/JAN/20	04:47	7.15		
23/JAN/20	04:48	7.15		
23/JAN/20	04:49	7.15		
23/JAN/20	04:50	7.15	2.187	59.348
23/JAN/20	04:51	7.15		
23/JAN/20	04:52	7.15		
23/JAN/20	04:53	7.17		
23/JAN/20	04:54	7.17		
23/JAN/20	04:55	7.17	1.912	45.099
23/JAN/20	04:56	7.16		
23/JAN/20	04:57	7.13		
23/JAN/20	04:58	7.10		
23/JAN/20	04:59	7.08		
23/JAN/20	05:00	7.06	1.965	47.731
23/JAN/20	05:01	7.06		
23/JAN/20	05:02	7.08		
23/JAN/20	05:03	7.09		
23/JAN/20	05:04	7.10		
23/JAN/20	05:05	7.11	2.080	53.601
23/JAN/20	05:06	7.11		
23/JAN/20	05:07	7.13		
23/JAN/20	05:08	7.13		
23/JAN/20	05:09	7.15		
23/JAN/20	05:10	7.15	2.120	55.685
23/JAN/20	05:11	7.16		
23/JAN/20	05:12	7.18		
23/JAN/20	05:13	7.19		
23/JAN/20	05:14	7.20		
23/JAN/20	05:15	7.32	1.860	42.630
23/JAN/20	05:16	7.51		
23/JAN/20	05:17	7.60		
23/JAN/20	05:18	7.55		
23/JAN/20	05:19	7.48		
23/JAN/20	05:20	7.40	1.802	39.982
23/JAN/20	05:21	7.32		
23/JAN/20	05:22	7.25		
23/JAN/20	05:23	7.23		
23/JAN/20	05:24	7.23		
23/JAN/20	05:25	7.23	2.124	55.887
23/JAN/20	05:26	7.29		
23/JAN/20	05:27	7.26		
23/JAN/20	05:28	7.18		
23/JAN/20	05:29	7.13		
23/JAN/20	05:30	7.12	2.203	60.213
23/JAN/20	05:31	7.12		
23/JAN/20	05:32	7.15		
23/JAN/20	05:33	7.20		
23/JAN/20	05:34	7.21		
23/JAN/20	05:35	7.20	1.960	47.485
23/JAN/20	05:36	7.19		
23/JAN/20	05:37	7.18		
23/JAN/20	05:38	7.16		
23/JAN/20	05:39	7.14		
23/JAN/20	05:40	7.12	2.170	58.417
23/JAN/20	05:41	7.11		

23/JAN/20	05:42	7.11		
23/JAN/20	05:43	7.11		
23/JAN/20	05:44	7.12		
23/JAN/20	05:45	7.11	2.256	63.175
23/JAN/20	05:46	7.10		
23/JAN/20	05:47	7.09		
23/JAN/20	05:48	7.07		
23/JAN/20	05:49	7.06		
23/JAN/20	05:50	7.04	2.068	52.977
23/JAN/20	05:51	7.00		
23/JAN/20	05:52	6.99		
23/JAN/20	05:53	6.99		
23/JAN/20	05:54	7.00		
23/JAN/20	05:55	7.02	2.163	58.010
23/JAN/20	05:56	7.03		
23/JAN/20	05:57	7.05		
23/JAN/20	05:58	7.06		
23/JAN/20	05:59	7.06		
23/JAN/20	06:00	7.07	1.993	49.097
23/JAN/20	06:01	7.07		
23/JAN/20	06:02	7.07		
23/JAN/20	06:03	7.07		
23/JAN/20	06:04	7.06		
23/JAN/20	06:05	7.06	2.066	52.862
23/JAN/20	06:06	7.06		
23/JAN/20	06:07	7.05		
23/JAN/20	06:08	7.06		
23/JAN/20	06:09	7.08		
23/JAN/20	06:10	7.12	2.049	51.987
23/JAN/20	06:11	7.18		
23/JAN/20	06:12	7.26		
23/JAN/20	06:13	7.32		
23/JAN/20	06:14	7.36		
23/JAN/20	06:15	7.40	1.967	47.825
23/JAN/20	06:16	7.45		
23/JAN/20	06:17	7.48		
23/JAN/20	06:18	7.50		
23/JAN/20	06:19	7.57		
23/JAN/20	06:20	7.59	2.370	69.750
23/JAN/20	06:21	7.64		
23/JAN/20	06:22	7.64		
23/JAN/20	06:23	7.61		
23/JAN/20	06:24	7.67		
23/JAN/20	06:25	7.68	2.244	62.498
23/JAN/20	06:26	7.60		
23/JAN/20	06:27	7.55		
23/JAN/20	06:28	7.51		
23/JAN/20	06:29	7.48		
23/JAN/20	06:30	7.46	2.237	62.077
23/JAN/20	06:31	7.43		
23/JAN/20	06:32	7.41		
23/JAN/20	06:33	7.40		
23/JAN/20	06:34	7.38		
23/JAN/20	06:35	7.36	2.439	73.911
23/JAN/20	06:36	7.34		
23/JAN/20	06:37	7.30		
23/JAN/20	06:38	7.27		
23/JAN/20	06:39	7.24		
23/JAN/20	06:40	7.20	2.447	74.394
23/JAN/20	06:41	7.18		
23/JAN/20	06:42	7.16		
23/JAN/20	06:43	7.18		
23/JAN/20	06:44	7.22		

23/JAN/20	06:45	7.27	2.263	63.573
23/JAN/20	06:46	7.33		
23/JAN/20	06:47	7.38		
23/JAN/20	06:48	7.45		
23/JAN/20	06:49	7.50		
23/JAN/20	06:50	7.52	2.151	57.371
23/JAN/20	06:51	7.53		
23/JAN/20	06:52	7.55		
23/JAN/20	06:53	7.57		
23/JAN/20	06:54	7.51		
23/JAN/20	06:55	7.46	2.408	72.047
23/JAN/20	06:56	7.42		
23/JAN/20	06:57	7.43		
23/JAN/20	06:58	7.65		
23/JAN/20	06:59	7.74		
23/JAN/20	07:00	7.74	2.602	84.129
23/JAN/20	07:01	7.71		
23/JAN/20	07:02	7.67		
23/JAN/20	07:03	7.61		
23/JAN/20	07:04	7.54		
23/JAN/20	07:05	7.48	2.784	96.229
23/JAN/20	07:06	7.41		
23/JAN/20	07:07	7.35		
23/JAN/20	07:08	7.36		
23/JAN/20	07:09	7.38		
23/JAN/20	07:10	7.38	2.807	97.841
23/JAN/20	07:11	7.41		
23/JAN/20	07:12	7.52		
23/JAN/20	07:13	7.64		
23/JAN/20	07:14	7.72		
23/JAN/20	07:15	7.77	2.381	70.422
23/JAN/20	07:16	7.80		
23/JAN/20	07:17	7.81		
23/JAN/20	07:18	7.82		
23/JAN/20	07:19	7.81		
23/JAN/20	07:20	7.79	2.191	59.567
23/JAN/20	07:21	7.79		
23/JAN/20	07:22	7.78		
23/JAN/20	07:23	7.77		
23/JAN/20	07:24	7.76		
23/JAN/20	07:25	7.76	2.267	63.813
23/JAN/20	07:26	7.76		
23/JAN/20	07:27	7.75		
23/JAN/20	07:28	7.76		
23/JAN/20	07:29	7.74		
23/JAN/20	07:30	7.68	2.464	75.418
23/JAN/20	07:31	7.64		
23/JAN/20	07:32	7.64		
23/JAN/20	07:33	7.64		
23/JAN/20	07:34	7.61		
23/JAN/20	07:35	7.56	2.705	90.918
23/JAN/20	07:36	7.53		
23/JAN/20	07:37	7.50		
23/JAN/20	07:38	7.50		
23/JAN/20	07:39	7.53		
23/JAN/20	07:40	7.53	2.628	85.832
23/JAN/20	07:41	7.53		
23/JAN/20	07:42	7.56		
23/JAN/20	07:43	7.57		
23/JAN/20	07:44	7.56		
23/JAN/20	07:45	7.55	2.589	83.316
23/JAN/20	07:46	7.54		
23/JAN/20	07:47	7.51		

23/JAN/20	07:48	7.50		
23/JAN/20	07:49	7.51		
23/JAN/20	07:50	7.55	2.474	76.093
23/JAN/20	07:51	7.59		
23/JAN/20	07:52	7.61		
23/JAN/20	07:53	7.61		
23/JAN/20	07:54	7.59		
23/JAN/20	07:55	7.56	2.556	81.210
23/JAN/20	07:56	7.59		
23/JAN/20	07:57	7.67		
23/JAN/20	07:58	7.70		
23/JAN/20	07:59	7.68		
23/JAN/20	08:00	7.63	2.494	77.269
23/JAN/20	08:01	7.65		
23/JAN/20	08:02	7.67		
23/JAN/20	08:03	7.63		
23/JAN/20	08:04	7.60		
23/JAN/20	08:05	7.59	2.523	79.088
23/JAN/20	08:06	7.60		
23/JAN/20	08:07	7.61		
23/JAN/20	08:08	7.62		
23/JAN/20	08:09	7.64		
23/JAN/20	08:10	7.69	2.662	88.029
23/JAN/20	08:11	7.81		
23/JAN/20	08:12	7.90		
23/JAN/20	08:13	7.91		
23/JAN/20	08:14	7.89		
23/JAN/20	08:15	7.89	2.682	89.386
23/JAN/20	08:16	7.92		
23/JAN/20	08:17	7.89		
23/JAN/20	08:18	7.79		
23/JAN/20	08:19	7.70		
23/JAN/20	08:20	7.64	2.764	94.889
23/JAN/20	08:21	7.59		
23/JAN/20	08:22	7.57		
23/JAN/20	08:23	7.59		
23/JAN/20	08:24	7.67		
23/JAN/20	08:25	7.72	2.580	82.742
23/JAN/20	08:26	7.69		
23/JAN/20	08:27	7.66		
23/JAN/20	08:28	7.67		
23/JAN/20	08:29	7.67		
23/JAN/20	08:30	7.67	2.701	90.623
23/JAN/20	08:31	7.40		

Started pH checks

23/JAN/20	08:32	7.11		
23/JAN/20	08:33	7.09		
23/JAN/20	08:34	7.09		
23/JAN/20	08:35	8.99	2.689	89.819
23/JAN/20	08:36	10.03		
23/JAN/20	08:37	10.03		
23/JAN/20	08:38	10.03		
23/JAN/20	08:39	10.03		
23/JAN/20	08:40	10.03	2.708	91.098
23/JAN/20	08:41	10.03		
23/JAN/20	08:42	10.03		
23/JAN/20	08:43	10.03		
23/JAN/20	08:44	10.03		
23/JAN/20	08:45	10.03	2.708	91.098

Finished pH checks

```
=====================================================================
                      Day Report - 23/JAN/20
                             Thursday
Site Id:            20200121
---------------------------------------------------------------------
                         pH/ORP    Level   Flow 1
                           (pH)    (in.)    (gpm)

Minimum:                    6.94    1.539   28.872
                           01:56    00:05    00:05

Maximum:                   10.03    2.807   97.841
                           08:38    07:10    07:10

Average:                    ----    2.074   54.689

Total Flow1:           2871.188 (gal) x10
```

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Certificate of Analysis

Project Name: WSSC
PSS Project No.: 20012201

January 29, 2020

Hayley Thomas
DDC-4C
70 West King Street
Chambersburg, PA 17201

Reference: PSS Project No: **20012201**
Project Name: WSSC
Project Location: Monitoring Point FAC IWMP

Dear Hayley Thomas:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **20012201**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on February 26, 2020, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager

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Explanation of Qualifiers

Project Name: WSSC
PSS Project No.: 20012201

The following samples were received under chain of custody by Phase Separation Science (PSS) on 01/22/2020 at 10:50 am

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
20012201-001	20200121g1&g2	WASTE WATER	01/21/20 13:32
20012201-002	20200121c	WASTE WATER	01/21/20 23:59

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

B	A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
C	Results Pending Final Confirmation.
E	The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
Fail	The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
J	The target analyte was positively identified below the reporting limit but greater than the MDL.
MDL	This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
ND	Not Detected at or above the reporting limit.
RL	PSS Reporting Limit.
U	Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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Certificate of Analysis

Project Name: WSSC
PSS Project No.: 20012201

Sample ID: 20200121g1&g2 **Date/Time Sampled: 01/21/2020 13:32** **PSS Sample ID: 20012201-001**
Matrix: WASTE WATER **Date/Time Received: 01/22/2020 10:50**

Total Cyanide Analytical Method: SM 4500-CN C,E -2011 Preparation Method: SM4500CN-C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Cyanide, Total	ND	mg/L	0.010		1	01/24/20	01/24/20 12:35	1053

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Certificate of Analysis

Project Name: WSSC
PSS Project No.: 20012201

Sample ID: 20200121c **Date/Time Sampled: 01/21/2020 23:59** **PSS Sample ID: 20012201-002**
Matrix: WASTE WATER **Date/Time Received: 01/22/2020 10:50**

Total Metals (10) Analytical Method: EPA 200.8 Preparation Method: 200.8

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Arsenic	ND	ug/L	1.0		1	01/23/20	01/24/20 15:48	1064
Cadmium	ND	ug/L	1.0		1	01/23/20	01/24/20 15:48	1064
Chromium	ND	ug/L	1.0		1	01/23/20	01/24/20 15:48	1064
Copper	**67.0**	ug/L	1.00		1	01/23/20	01/24/20 15:48	1064
Lead	**1.2**	ug/L	1.0		1	01/23/20	01/24/20 15:48	1064
Molybdenum	**2.1**	ug/L	1.0		1	01/23/20	01/24/20 15:48	1064
Nickel	**23.9**	ug/L	1.00		1	01/23/20	01/24/20 15:48	1064
Selenium	ND	ug/L	1.0		1	01/23/20	01/24/20 15:48	1064
Silver	ND	ug/L	1.0		1	01/23/20	01/24/20 15:48	1064
Zinc	**107**	ug/L	20.0		1	01/23/20	01/24/20 15:48	1064

Phosphorus, Total as P Analytical Method: EPA 365.3 Preparation Method: E365.3

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Phosphorus, Total (as P)	**5.8**	mg/L	0.50		10	01/24/20	01/24/20 12:57	1053

Nitrogen, Ammonia Analytical Method: SM 4500-NH3-F -2011 Preparation Method: SM4500-NH3B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Nitrogen, Ammonia (as N)	**34**	mg/L	1.9		9.375	01/23/20	01/23/20 18:30	1053

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Certificate of Analysis

Project Name: WSSC
PSS Project No.: 20012201

Sample ID: 20200121c **Date/Time Sampled: 01/21/2020 23:59** **PSS Sample ID: 20012201-002**
Matrix: WASTE WATER **Date/Time Received: 01/22/2020 10:50**

Biochemical Oxygen Demand Analytical Method: SM 5210B -2011

Start time: 22-Jan-20 10:45

	Result	Units	RL	Flag	Prepared	Analyzed	Analyst
Biochemical Oxygen Demand, 5 day	**94.8**	mg/L	60.0		01/22/20	01/27/20 16:02	4005

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Project Name: WSSC

PSS Project No.: 20012201

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Samples g1 and g2 composited upon receipt.

20012201: Analyses associated with analyst code 4005 were performed by
Enviro-Chem Laboratories, Inc., 47 Loveton Circle, Suite K, Sparks, MD 21152

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

SM 5210B -2011

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Lab Chronology

Project Name: WSSC
PSS Project No.: 20012201

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
EPA 200.8	20200121c	Initial	20012201-002	W	80102	171417	01/23/2020 16:30	01/24/2020 15:48
	80102-1-BKS	BKS	80102-1-BKS	W	80102	171417	01/23/2020 16:30	01/24/2020 14:54
	80102-1-BLK	BLK	80102-1-BLK	W	80102	171417	01/23/2020 16:30	01/24/2020 14:49
	633-012120-01 S	MS	20012109-001 S	W	80102	171417	01/23/2020 16:30	01/24/2020 15:03
	633-012120-01 SD	MSD	20012109-001 S	W	80102	171417	01/23/2020 16:30	01/24/2020 15:07
EPA 365.3	20200121c	Initial	20012201-002	W	80119	171364	01/24/2020 11:15	01/24/2020 12:57
	80119-1-BKS	BKS	80119-1-BKS	W	80119	171364	01/24/2020 11:15	01/24/2020 12:57
	80119-1-BLK	BLK	80119-1-BLK	W	80119	171364	01/24/2020 11:15	01/24/2020 12:57
	20200123-001 S	MS	20012308-001 S	W	80119	171364	01/24/2020 11:15	01/24/2020 12:57
	20200123-001 SD	MSD	20012308-001 S	W	80119	171364	01/24/2020 11:15	01/24/2020 12:57
SM 4500-CN C,E - 2011	20200121g1&g2	Initial	20012201-001	W	80113	171382	01/24/2020 10:13	01/24/2020 12:35
	80113-1-BKS	BKS	80113-1-BKS	W	80113	171382	01/24/2020 10:13	01/24/2020 12:26
	80113-1-BLK	BLK	80113-1-BLK	W	80113	171382	01/24/2020 10:13	01/24/2020 12:23
	80113-1-BSD	BSD	80113-1-BSD	W	80113	171382	01/24/2020 10:13	01/24/2020 12:29
	20200121g1&g2 S	MS	20012201-001 S	W	80113	171382	01/24/2020 10:13	01/24/2020 12:38
	20200121g1&g2 SD	MSD	20012201-001 S	W	80113	171382	01/24/2020 10:13	01/24/2020 12:41
SM 4500-NH3-F - 2011	20200121c	Initial	20012201-002	W	80089	171377	01/23/2020 12:22	01/23/2020 18:30
	80089-1-BKS	BKS	80089-1-BKS	W	80089	171377	01/23/2020 12:22	01/23/2020 17:00
	80089-1-BLK	BLK	80089-1-BLK	W	80089	171377	01/23/2020 12:22	01/23/2020 16:56
	80089-1-BSD	BSD	80089-1-BSD	W	80089	171377	01/23/2020 12:22	01/23/2020 17:04
	20200121c S	MS	20012201-002 S	W	80089	171377	01/23/2020 12:22	01/23/2020 18:34
	20200121c SD	MSD	20012201-002 S	W	80089	171377	01/23/2020 12:22	01/23/2020 18:38
SM 5210B -2011	20200121c	Initial	20012201-002	W	171479	171479	01/22/2020 10:45	01/27/2020 16:02

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QC Summary

Project Name WSSC
PSS Project No.: 20012201

Analytical Method: EPA 365.3 Prep Method: E365.3_Prep
Seq Number: 171364 Matrix: Water Date Prep: 01/24/20
MB Sample Id: 80119-1-BLK LCS Sample Id: 80119-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Phosphorus, Total (as P)	<0.0500	0.975	0.979	100	85-115	mg/L	

Analytical Method: SM 4500-CN C,E -2011 Prep Method: SM4500CN-CPRE
Seq Number: 171382 Matrix: Water Date Prep: 01/24/20
MB Sample Id: 80113-1-BLK LCS Sample Id: 80113-1-BKS LCSD Sample Id: 80113-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Cyanide, Total	<0.01000	0.1000	0.09982	100	0.09617	96	85-115	4	20	mg/L	

Analytical Method: SM 4500-CN C,E -2011 Prep Method: SM4500CN-CPRE
Seq Number: 171382 Matrix: Waste Water Date Prep: 01/24/20
Parent Sample Id: 20012201-001 MS Sample Id: 20012201-001 S MSD Sample Id: 20012201-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Cyanide, Total	<0.01000	0.1000	0.09427	94	0.09502	95	80-120	1	20	mg/L	

Analytical Method: SM 4500-NH3-F -2011 Prep Method: SM4500-NH3B
Seq Number: 171377 Matrix: Water Date Prep: 01/23/20
MB Sample Id: 80089-1-BLK LCS Sample Id: 80089-1-BKS LCSD Sample Id: 80089-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Nitrogen, Ammonia (as N)	<0.2000	2.500	2.596	104	2.468	99	85-115	5	20	mg/L	

Analytical Method: SM 4500-NH3-F -2011 Prep Method: SM4500-NH3B
Seq Number: 171377 Matrix: Waste Water Date Prep: 01/23/20
Parent Sample Id: 20012201-002 MS Sample Id: 20012201-002 S MSD Sample Id: 20012201-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Nitrogen, Ammonia (as N)	33.93	2.344	36.81	115	36.64	108	80-120	6	20	mg/L	

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QC Summary

Project Name WSSC
PSS Project No.: 20012201

Analytical Method: EPA 200.8
Seq Number: 171417
Matrix: Water
Prep Method: E200.8_PREP
Date Prep: 01/23/20
MB Sample Id: 80102-1-BLK
LCS Sample Id: 80102-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Arsenic	<1.000	40.00	37.46	94	85-115	ug/L	
Cadmium	<1.000	40.00	38.72	97	85-115	ug/L	
Chromium	<1.000	40.00	37.70	94	85-115	ug/L	
Copper	<1.000	40.00	37.15	93	85-115	ug/L	
Lead	<1.000	40.00	37.71	94	85-115	ug/L	
Molybdenum	<1.000	40.00	36.24	91	85-115	ug/L	
Nickel	<1.000	40.00	39.38	98	85-115	ug/L	
Selenium	<1.000	40.00	34.71	87	85-115	ug/L	
Silver	<1.000	40.00	37.22	93	85-115	ug/L	
Zinc	<20.00	200	197.2	99	85-115	ug/L	

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

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(1)

*CLIENT: DDCK *OFFICE LOC. GSFC

*PROJECT MGR: Hayley Thomas *PHONE NO.: (301) 286 8734

EMAIL: Hayley.Thomas@nasa.gov FAX NO.: ( )

*PROJECT NAME: WSSC PROJECT NO.:

SITE LOCATION: monitoring Point FAC IWMP P.O. NO.: 4C S35

SAMPLER(S): H. Thomas DW CERT NO.:

PSS Work Order #: 20012201 PAGE 1 OF 1

Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil L=Liquid SOL=Solid A=Air WI=Wipe

(2)

LAB NO.	*SAMPLE IDENTIFICATION	*DATE (SAMPLED)	*TIME (SAMPLED)	MATRIX (See Codes)	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	total metals	Arsenic selenium molybdenum	BOD	total phosphorus Ammonia	Cyanide							REMARKS
						Preservatives Used	HNO3		HNO3		none		H2SO4	NaOH				
						Analysis/ Method Required (3) *												
	20200121g1	1/21/20	12:10	WW	1	g					X							*please
	20200121g2	1/21/20	13:32	WW	1	g					X							combine
	20200121c	1/21/20	00:01-23:59	WW	4	C	X	X	X	X								20200121g1
																		and
																		20200121g2
																		and analyze
																		as one
																		sample

(5)

Relinquished By:	Date	Time	Received By:
(1) Hayley Thomas	1/22/20	10:14	Dan Parks
(2) Dan Parks	01/22/20	1050	[illegible]
(3)			
(4)			

(4)

*Requested TAT (One TAT per COC): ☒ 5-Day ☐ 3-Day ☐ 2-Day ☐ Next Day ☐ Emergency ☐ Other

Data Deliverables Required: COA ☐ QC SUMM ☐ CLP LIKE ☐ OTHER ____

Special Instructions:

DW COMPLIANCE? YES ☐ EDD FORMAT TYPE ____ STATE RESULTS REPORTED TO: MD ☐ DE ☐ PA ☐ VA ☐ WV ☐ OTHER ____

# of Coolers: 1

Custody Seal: ABS

Ice Present: PRES Temp: 3.9°-4.3°C

Shipping Carrier: TIE

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The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. * = REQUIRED

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Sample Receipt Checklist

Project Name: WSSC
PSS Project No.: 20012201

Client Name	DDC-4C	**Received By**	Thomas Wingate
Disposal Date	02/26/2020	**Date Received**	01/22/2020 10:50:00 AM
		Delivered By	Trans Time Express
		Tracking No	Not Applicable
		Logged In By	Thomas Wingate

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	4.3
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

		Sampler Name	H.Thomas
COC agrees with sample labels?	Yes	MD DW Cert. No.	N/A
Chain of Custody	Yes		

Sample Container

		Custody Seal(s) Intact?	Not Applicable
Appropriate for Specified Analysis?	Yes	Seal(s) Signed / Dated	Not Applicable
Intact?	Yes		
Labeled and Labels Legible?	Yes		

Holding Time

		Total No. of Samples Received	2
All Samples Received Within Holding Time(s)?	Yes	Total No. of Containers Received	5

Preservation

Total Metals	(pH<2)	Yes
Dissolved Metals, filtered within 15 minutes of collection	(pH<2)	N/A
Orthophosphorus, filtered within 15 minutes of collection		N/A
Cyanides	(pH>12)	Yes
Sulfide	(pH>9)	N/A
TOC, DOC (field filtered), COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	Yes
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A
524 VOC (Rcvd with trip blanks)	(pH<2)	N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples g1 and g2 composited upon receipt.

Samples Inspected/Checklist Completed By: Thomas Wingate — Date: 01/22/2020

PM Review and Approval: Lynn Jackson — Date: 01/22/2020

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Certificate of Analysis

Project Name: WSSC
PSS Project No.: 20012307

January 30, 2020

Hayley Thomas
DDC-4C
70 West King Street
Chambersburg, PA 17201

Reference: PSS Project No: **20012307**
Project Name: WSSC
Project Location: Monitoring Point FAC IWMP

Dear Hayley Thomas:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **20012307**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on February 27, 2020, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Cathy Thompson
QA Officer

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Explanation of Qualifiers

Project Name: WSSC
PSS Project No.: 20012307

The following samples were received under chain of custody by Phase Separation Science (PSS) on 01/23/2020 at 12:00 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
20012307-001	20200122g1&g2	WASTE WATER	01/22/20 11:54
20012307-002	20200122c	WASTE WATER	01/22/20 23:59

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

B	A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
C	Results Pending Final Confirmation.
E	The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
Fail	The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
J	The target analyte was positively identified below the reporting limit but greater than the MDL.
MDL	This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
ND	Not Detected at or above the reporting limit.
RL	PSS Reporting Limit.
U	Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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Certificate of Analysis

Project Name: WSSC
PSS Project No.: 20012307

Sample ID: 20200122g1&g2 **Date/Time Sampled: 01/22/2020 11:54** **PSS Sample ID: 20012307-001**
Matrix: WASTE WATER **Date/Time Received: 01/23/2020 12:00**

Total Cyanide Analytical Method: SM 4500-CN C,E -2011 Preparation Method: SM4500CN-C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Cyanide, Total	ND	mg/L	0.010		1	01/24/20	01/24/20 12:44	1053

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Certificate of Analysis

Project Name: WSSC
PSS Project No.: 20012307

Sample ID: 20200122c **Date/Time Sampled: 01/22/2020 23:59** **PSS Sample ID: 20012307-002**
Matrix: WASTE WATER **Date/Time Received: 01/23/2020 12:00**

Total Metals (10) Analytical Method: EPA 200.8 Preparation Method: 200.8

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Arsenic	ND	ug/L	1.0		1	01/27/20	01/27/20 18:00	1051
Cadmium	ND	ug/L	1.0		1	01/27/20	01/27/20 18:00	1051
Chromium	ND	ug/L	1.0		1	01/27/20	01/27/20 18:00	1051
Copper	**50.3**	ug/L	1.00		1	01/27/20	01/27/20 18:00	1051
Lead	ND	ug/L	1.0		1	01/27/20	01/27/20 18:00	1051
Molybdenum	**1.3**	ug/L	1.0		1	01/27/20	01/27/20 18:00	1051
Nickel	**4.6**	ug/L	1.0		1	01/27/20	01/27/20 18:00	1051
Selenium	ND	ug/L	1.0		1	01/27/20	01/27/20 18:00	1051
Silver	ND	ug/L	1.0		1	01/27/20	01/27/20 18:00	1051
Zinc	**79.5**	ug/L	20.0		1	01/27/20	01/27/20 18:00	1051

Phosphorus, Total as P Analytical Method: EPA 365.3 Preparation Method: E365.3

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Phosphorus, Total (as P)	**6.9**	mg/L	0.50		10	01/24/20	01/24/20 12:57	1053

Nitrogen, Ammonia Analytical Method: SM 4500-NH3-F -2011 Preparation Method: SM4500-NH3B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Nitrogen, Ammonia (as N)	**63**	mg/L	7.5		37.5	01/23/20	01/23/20 19:23	1053

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Certificate of Analysis

Project Name: WSSC
PSS Project No.: 20012307

Sample ID: 20200122c **Date/Time Sampled: 01/22/2020 23:59** **PSS Sample ID: 20012307-002**
Matrix: WASTE WATER **Date/Time Received: 01/23/2020 12:00**

Biochemical Oxygen Demand Analytical Method: SM 5210B -2011

Start time: 24-Jan-20 11:53

	Result	Units	RL	Flag	Prepared	Analyzed	Analyst
Biochemical Oxygen Demand, 5 day	**110**	mg/L	60.0		01/29/20	01/29/20 13:15	4005

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Project Name: WSSC

PSS Project No.: 20012307

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Samples g1 and g2 composited upon receipt.

20012307: Analyses associated with analyst code 4005 were performed by
Enviro-Chem Laboratories, Inc., 47 Loveton Circle, Suite K, Sparks, MD 21152

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

SM 5210B -2011

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Lab Chronology

Project Name: WSSC
PSS Project No.: 20012307

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
EPA 200.8	20200122c	Initial	20012307-002	W	80142	171465	01/27/2020 12:01	01/27/2020 18:00
	80142-1-BKS	BKS	80142-1-BKS	W	80142	171465	01/27/2020 12:01	01/27/2020 17:39
	80142-1-BLK	BLK	80142-1-BLK	W	80142	171465	01/27/2020 12:01	01/27/2020 17:34
	Millville 001 S	MS	20012405-001 S	W	80142	171465	01/27/2020 12:01	01/27/2020 17:50
	Millville 001 SD	MSD	20012405-001 S	W	80142	171465	01/27/2020 12:01	01/27/2020 17:55
EPA 365.3	20200122c	Initial	20012307-002	W	80119	171364	01/24/2020 11:15	01/24/2020 12:57
	80119-1-BKS	BKS	80119-1-BKS	W	80119	171364	01/24/2020 11:15	01/24/2020 12:57
	80119-1-BLK	BLK	80119-1-BLK	W	80119	171364	01/24/2020 11:15	01/24/2020 12:57
	20200123-001 S	MS	20012308-001 S	W	80119	171364	01/24/2020 11:15	01/24/2020 12:57
	20200123-001 SD	MSD	20012308-001 S	W	80119	171364	01/24/2020 11:15	01/24/2020 12:57
SM 4500-CN C,E - 2011	20200122g1&g2	Initial	20012307-001	W	80113	171382	01/24/2020 10:13	01/24/2020 12:44
	80113-1-BKS	BKS	80113-1-BKS	W	80113	171382	01/24/2020 10:13	01/24/2020 12:26
	80113-1-BLK	BLK	80113-1-BLK	W	80113	171382	01/24/2020 10:13	01/24/2020 12:23
	80113-1-BSD	BSD	80113-1-BSD	W	80113	171382	01/24/2020 10:13	01/24/2020 12:29
	20200121g1&g2 S	MS	20012201-001 S	W	80113	171382	01/24/2020 10:13	01/24/2020 12:38
	20200121g1&g2 SD	MSD	20012201-001 S	W	80113	171382	01/24/2020 10:13	01/24/2020 12:41
SM 4500-NH3-F - 2011	20200122c	Initial	20012307-002	W	80089	171377	01/23/2020 12:22	01/23/2020 19:23
	80089-1-BKS	BKS	80089-1-BKS	W	80089	171377	01/23/2020 12:22	01/23/2020 17:00
	80089-1-BLK	BLK	80089-1-BLK	W	80089	171377	01/23/2020 12:22	01/23/2020 16:56
	80089-1-BSD	BSD	80089-1-BSD	W	80089	171377	01/23/2020 12:22	01/23/2020 17:04
	20200121c S	MS	20012201-002 S	W	80089	171377	01/23/2020 12:22	01/23/2020 18:34
	20200121c SD	MSD	20012201-002 S	W	80089	171377	01/23/2020 12:22	01/23/2020 18:38
SM 5210B -2011	20200122c	Initial	20012307-002	W	171513	171513	01/29/2020 13:15	01/29/2020 13:15

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QC Summary

Project Name WSSC
PSS Project No.: 20012307

Analytical Method: EPA 365.3 Prep Method: E365.3_Prep
Seq Number: 171364 Matrix: Water Date Prep: 01/24/20
MB Sample Id: 80119-1-BLK LCS Sample Id: 80119-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Phosphorus, Total (as P)	<0.0500	0.975	0.979	100	85-115	mg/L	

Analytical Method: SM 4500-CN C,E -2011 Prep Method: SM4500CN-CPRE
Seq Number: 171382 Matrix: Water Date Prep: 01/24/20
MB Sample Id: 80113-1-BLK LCS Sample Id: 80113-1-BKS LCSD Sample Id: 80113-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Cyanide, Total	<0.01000	0.1000	0.09982	100	0.09617	96	85-115	4	20	mg/L	

Analytical Method: SM 4500-NH3-F -2011 Prep Method: SM4500-NH3B
Seq Number: 171377 Matrix: Water Date Prep: 01/23/20
MB Sample Id: 80089-1-BLK LCS Sample Id: 80089-1-BKS LCSD Sample Id: 80089-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Nitrogen, Ammonia (as N)	<0.2000	2.500	2.596	104	2.468	99	85-115	5	20	mg/L	

Analytical Method: EPA 200.8 Prep Method: E200.8_PREP
Seq Number: 171465 Matrix: Water Date Prep: 01/27/20
MB Sample Id: 80142-1-BLK LCS Sample Id: 80142-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Arsenic	<1.000	40.00	42.08	105	85-115	ug/L	
Cadmium	<1.000	40.00	42.29	106	85-115	ug/L	
Chromium	<1.000	40.00	42.34	106	85-115	ug/L	
Copper	<1.000	40.00	41.35	103	85-115	ug/L	
Lead	<1.000	40.00	43.43	109	85-115	ug/L	
Molybdenum	<1.000	40.00	41.88	105	85-115	ug/L	
Nickel	<1.000	40.00	42.13	105	85-115	ug/L	
Selenium	<1.000	40.00	39.49	99	85-115	ug/L	
Silver	<1.000	40.00	42.40	106	85-115	ug/L	
Zinc	<20.00	200	215.7	108	85-115	ug/L	

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

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email: info@phaseonline.com

1

*CLIENT: DOC 4C *OFFICE LOC. GSFC

*PROJECT MGR: Hayley Thomas *PHONE NO.: (301) 286 8734

EMAIL: Hayley.Thomas@nasa.gov FAX NO.: ( )

*PROJECT NAME: WSSC PROJECT NO.:

SITE LOCATION: monitoring Point FAC IWMP P.O. NO.: 4C535

SAMPLER(S): H. Thomas L. Wickland DW CERT NO.:

PSS Work Order #: 20012307 PAGE 1 OF 1

Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil L=Liquid SOL=Solid A=Air WI=Wipe

2

LAB NO.	*SAMPLE IDENTIFICATION	*DATE (SAMPLED)	*TIME (SAMPLED)	MATRIX (See Codes)	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Total metals Arsenic selenium, molybdenum	BOD	total phosphorus, Ammonia	Cyanide	REMARKS
Preservatives Used							HNO3	HNO3	none	H2SO4	NaOH
1	20200122g1	1/22/20	10:22	WW	1	g				X	*please
1	20200122g2	1/22/20	11:54	WW	1	g				X	combine
2	20200122c	1/22/20	00:01-23:59	WW	4	c	X	X	X	X	20200122g1
											and
											20200122g2
											and analyze
											as one
											sample

5

Relinquished By: (1)	Date	Time	Received By:
Hayley Thomas	1/23/20	11:08	
Relinquished By: (2)	Date	Time	Received By:
	1/23/20	1200	
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

4

*Requested TAT (One TAT per COC): ☒ 5-Day ☐ 3-Day ☐ 2-Day ☐ Next Day ☐ Emergency ☐ Other

Data Deliverables Required: COA ☐ QC SUMM ☐ CLP LIKE ☐ OTHER ____

Special Instructions:

DW COMPLIANCE? YES ☐ EDD FORMAT TYPE ____ STATE RESULTS REPORTED TO: MD ☐ DE ☐ PA ☐ VA ☐ WV ☐ OTHER ____

# of Coolers: 1

Custody Seal: ABS

Ice Present: PRES Temp: 2.2-2.4°C

Shipping Carrier: JTE

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The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. * = REQUIRED

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Sample Receipt Checklist

Project Name: WSSC
PSS Project No.: 20012307

Client Name DDC-4C
Disposal Date 02/27/2020

Received By Thomas Wingate
Date Received 01/23/2020 12:00:00 PM
Delivered By Trans Time Express
Tracking No Not Applicable
Logged In By Thomas Wingate

Shipping Container(s)
No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	2.4
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

		Sampler Name	HT & LW
COC agrees with sample labels?	Yes	MD DW Cert. No.	N/A
Chain of Custody	Yes		

Sample Container

		Custody Seal(s) Intact?	Not Applicable
Appropriate for Specified Analysis?	Yes	Seal(s) Signed / Dated	Not Applicable
Intact?	Yes		
Labeled and Labels Legible?	Yes		

Holding Time

		Total No. of Samples Received	2
All Samples Received Within Holding Time(s)?	Yes	Total No. of Containers Received	5

Preservation

Total Metals	(pH<2)	Yes
Dissolved Metals, filtered within 15 minutes of collection	(pH<2)	N/A
Orthophosphorus, filtered within 15 minutes of collection		N/A
Cyanides	(pH>12)	Yes
Sulfide	(pH>9)	N/A
TOC, DOC (field filtered), COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	Yes
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A
524 VOC (Rcvd with trip blanks)	(pH<2)	N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples g1 and g2 composited upon receipt.

Samples Inspected/Checklist Completed By: Thomas Wingate — Date: 01/23/2020

PM Review and Approval: Lynn Jackson — Date: 01/23/2020

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Certificate of Analysis

Project Name: WSSC
PSS Project No.: 20011411

January 21, 2020

Hayley Thomas
DDC-4C
70 West King Street
Chambersburg, PA 17201

Reference: PSS Project No: **20011411**
Project Name: WSSC
Project Location: Monitoring Point 001 IWMP

Dear Hayley Thomas:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **20011411**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on February 18, 2020, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager

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800-932-9047
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Explanation of Qualifiers

Project Name: WSSC
PSS Project No.: 20011411

The following samples were received under chain of custody by Phase Separation Science (PSS) on 01/14/2020 at 12:20 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
20011411-001	20200114	WASTE WATER	01/14/20 09:42
20011411-002	20200114	WASTE WATER	01/14/20 09:43

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

B	A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
C	Results Pending Final Confirmation.
E	The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
Fail	The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
J	The target analyte was positively identified below the reporting limit but greater than the MDL.
MDL	This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
ND	Not Detected at or above the reporting limit.
RL	PSS Reporting Limit.
U	Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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Certificate of Analysis

Project Name: WSSC
PSS Project No.: 20011411

Sample ID: 20200114 **Date/Time Sampled: 01/14/2020 09:42** **PSS Sample ID: 20011411-001**
Matrix: WASTE WATER **Date/Time Received: 01/14/2020 12:20**

Total Cyanide — Analytical Method: SM 4500-CN C,E -2011 — Preparation Method: SM4500CN-C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Cyanide, Total	ND	mg/L	0.010		1	01/16/20	01/16/20 13:49	1053

Sample ID: 20200114 **Date/Time Sampled: 01/14/2020 09:43** **PSS Sample ID: 20011411-002**
Matrix: WASTE WATER **Date/Time Received: 01/14/2020 12:20**

Total Metals (7) — Analytical Method: EPA 200.8 — Preparation Method: 200.8

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Cadmium	**1.6**	ug/L	1.0		1	01/15/20	01/15/20 18:58	1064
Chromium	**902**	ug/L	1.00		1	01/15/20	01/15/20 18:58	1064
Copper	**233**	ug/L	1.00		1	01/15/20	01/15/20 18:58	1064
Lead	**90.4**	ug/L	1.00		1	01/15/20	01/15/20 18:58	1064
Nickel	**456**	ug/L	1.00		1	01/15/20	01/15/20 18:58	1064
Silver	**19.0**	ug/L	1.00		1	01/15/20	01/15/20 18:58	1064
Zinc	**695**	ug/L	20.0		1	01/15/20	01/15/20 18:58	1064

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Project Name: WSSC

PSS Project No.: 20011411

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

All sample receipt conditions were acceptable.

General Comments:

Metals list per project requirements.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

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Lab Chronology

Project Name: WSSC
PSS Project No.: 20011411

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
EPA 200.8	20200114	Initial	20011411-002	W	79989	171157	01/15/2020 11:15	01/15/2020 18:58
	79989-1-BKS	BKS	79989-1-BKS	W	79989	171157	01/15/2020 11:15	01/15/2020 16:49
	79989-1-BLK	BLK	79989-1-BLK	W	79989	171157	01/15/2020 11:15	01/15/2020 16:44
	Duplicate 1-01132019 S	MS	20011307-001 S	W	79989	171157	01/15/2020 11:15	01/15/2020 16:57
	GWUH010920A S	MS	20011503-001 S	W	79989	171157	01/15/2020 11:15	01/15/2020 19:07
	Duplicate 1-01132019 SD	MSD	20011307-001 S	W	79989	171157	01/15/2020 11:15	01/15/2020 17:01
	79989-1-BKS	Reanalysis	79989-1-BKS	W	79989	171214	01/15/2020 11:15	01/17/2020 20:41
SM 4500-CN C,E - 2011	20200114	Initial	20011411-001	W	80007	171163	01/16/2020 11:29	01/16/2020 13:49
	80007-1-BKS	BKS	80007-1-BKS	W	80007	171163	01/16/2020 11:29	01/16/2020 13:40
	80007-1-BLK	BLK	80007-1-BLK	W	80007	171163	01/16/2020 11:29	01/16/2020 13:37
	80007-1-BSD	BSD	80007-1-BSD	W	80007	171163	01/16/2020 11:29	01/16/2020 13:43
	20200114 S	MS	20011411-001 S	W	80007	171163	01/16/2020 11:29	01/16/2020 13:52
	Week 2 Grab Discharge S	MS	20011414-001 S	W	80007	171163	01/16/2020 11:29	01/16/2020 14:04
	20200114 SD	MSD	20011411-001 S	W	80007	171163	01/16/2020 11:29	01/16/2020 13:55

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QC Summary

Project Name WSSC
PSS Project No.: 20011411

Analytical Method: SM 4500-CN C,E -2011 Prep Method: SM4500CN-CPRE
Seq Number: 171163 Matrix: Water Date Prep: 01/16/20
MB Sample Id: 80007-1-BLK LCS Sample Id: 80007-1-BKS LCSD Sample Id: 80007-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Cyanide, Total	<0.01000	0.1000	0.09997	100	0.09993	100	85-115	0	20	mg/L	

Analytical Method: SM 4500-CN C,E -2011 Prep Method: SM4500CN-CPRE
Seq Number: 171163 Matrix: Waste Water Date Prep: 01/16/20
Parent Sample Id: 20011411-001 MS Sample Id: 20011411-001 S MSD Sample Id: 20011411-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Cyanide, Total	<0.01000	0.1000	0.1039	104	0.1047	105	80-120	1	20	mg/L	

Analytical Method: EPA 200.8 Prep Method: E200.8_PREP
Seq Number: 171157 Matrix: Water Date Prep: 01/15/20
MB Sample Id: 79989-1-BLK LCS Sample Id: 79989-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Cadmium	<1.000	40.00	35.24	88	85-115	ug/L	
Chromium	<1.000	40.00	35.09	88	85-115	ug/L	
Copper	<1.000	40.00	36.40	91	85-115	ug/L	
Lead	<1.000	40.00	35.87	90	85-115	ug/L	
Nickel	<1.000	40.00	34.28	86	85-115	ug/L	
Silver	<1.000	40.00	34.74	87	85-115	ug/L	
Zinc	<20.00	200	178.1	89	85-115	ug/L	

Analytical Method: EPA 200.8 Prep Method: E200.8_PREP
Seq Number: 171214 Matrix: Water Date Prep: 01/15/20
REBLK Sample Id: 79989-1-BLK LCS Sample Id: 79989-1-BKS

Parameter	REBLK Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Cadmium	<1.000	40.00	40.02	100	85-115	ug/L	
Chromium	<1.000	40.00	41.65	104	85-115	ug/L	
Copper	<1.000	40.00	44.40	111	85-115	ug/L	
Lead	<1.000	40.00	39.39	98	85-115	ug/L	
Nickel	<1.000	40.00	42.07	105	85-115	ug/L	
Silver	<1.000	40.00	40.47	101	85-115	ug/L	
Zinc	<20.00	200	200.9	100	85-115	ug/L	

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

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email: info@phaseonline.com

20011411

(1)

*CLIENT: DDC4C *OFFICE LOC. GSFC NASA

*PROJECT MGR: Hayley Thomas *PHONE NO.: (301) 286 8734

EMAIL: Hayley.Thomas@nasa.gov FAX NO.: ( )

*PROJECT NAME: WSSC PROJECT NO.: 4C535

SITE LOCATION: Monitoring Point 001 IWMP P.O. NO.:

SAMPLER(S): H. Thomas H. Stein DW CERT NO.:

PSS Work Order #: ~~20011410~~ ~~20011420~~ PAGE 1 OF 1

Matrix Codes: SW-Surface Wtr DW-Drinking Wtr GW-Ground Wtr WW-Waste Wtr O-Oil S-Soil L-Liquid SOL-Solid A-Air WI-Wipe

(2)

LAB NO	*SAMPLE IDENTIFICATION	*DATE (SAMPLED)	*TIME (SAMPLED)	MATRIX (See Codes)	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used: NaOH	HNO3										REMARKS
(3) Analysis/ Method Required *							Cyanide	total metals										
1	20200114	1/14/20	9:42	WW	1	G	X											
21	20200114	1/14/20	9:43	WW	1	G		X										

(5)

Relinquished By: (1)	Date	Time	Received By:
Hayley Thomas	1/14/20	11:36	
Relinquished By: (2)	Date	Time	Received By:
	1/14/20	12:20	
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

(4)

*Requested TAT (One TAT per COC)
☒ 5-Day ☐ 3-Day ☐ 2-Day
☐ Next Day ☐ Emergency ☐ Other

Data Deliverables Required:
COA ☐ QC SUMM ☐ CLP LIKE ☐ OTHER _____

# of Coolers: 1
Custody Seal: ABS
Ice Present: PRES Temp: 3.8-3.9°C
Shipping Carrier: TE

Special Instructions:

DW COMPLIANCE? YES ☐

EDD FORMAT TYPE _____

STATE RESULTS REPORTED TO: MD ☐ DE ☐ PA ☐ VA ☐ WV ☐ OTHER _____

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The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. * = REQUIRED

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Sample Receipt Checklist

Project Name: WSSC
PSS Project No.: 20011411

Client Name	DDC-4C	**Received By**	Thomas Wingate
Disposal Date	02/18/2020	**Date Received**	01/14/2020 12:20:00 PM
		Delivered By	Trans Time Express
		Tracking No	Not Applicable
		Logged In By	Thomas Wingate

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	3.9
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

		Sampler Name	H.Thomas, H.Stein
COC agrees with sample labels?	Yes	MD DW Cert. No.	N/A
Chain of Custody	Yes		

Sample Container

		Custody Seal(s) Intact?	Not Applicable
Appropriate for Specified Analysis?	Yes	Seal(s) Signed / Dated	Not Applicable
Intact?	Yes		
Labeled and Labels Legible?	Yes		

Holding Time

		Total No. of Samples Received	2
All Samples Received Within Holding Time(s)?	Yes	Total No. of Containers Received	2

Preservation

Total Metals	(pH<2)	Yes
Dissolved Metals, filtered within 15 minutes of collection	(pH<2)	N/A
Orthophosphorus, filtered within 15 minutes of collection		N/A
Cyanides	(pH>12)	Yes
Sulfide	(pH>9)	N/A
TOC, DOC (field filtered), COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A
524 VOC (Rcvd with trip blanks)	(pH<2)	N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By: Thomas Wingate — Date: 01/14/2020

PM Review and Approval: Lynn Jackson — Date: 01/14/2020

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Certificate of Analysis

Project Name: WSSC
PSS Project No.: 20011507

January 22, 2020

Hayley Thomas
DDC-4C
70 West King Street
Chambersburg, PA 17201

Reference: PSS Project No: **20011507**
Project Name: WSSC
Project Location: Monitoring Point 001 IWMP

Dear Hayley Thomas:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **20011507**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on February 19, 2020, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager

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Explanation of Qualifiers

Project Name: WSSC
PSS Project No.: 20011507

The following samples were received under chain of custody by Phase Separation Science (PSS) on 01/15/2020 at 01:00 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
20011507-001	20200115	WASTE WATER	01/15/20 09:26
20011507-002	20200115	WASTE WATER	01/15/20 09:27

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

B	A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
C	Results Pending Final Confirmation.
E	The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
Fail	The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
J	The target analyte was positively identified below the reporting limit but greater than the MDL.
MDL	This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
ND	Not Detected at or above the reporting limit.
RL	PSS Reporting Limit.
U	Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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Certificate of Analysis

Project Name: WSSC
PSS Project No.: 20011507

Sample ID: 20200115 **Date/Time Sampled: 01/15/2020 09:26** **PSS Sample ID: 20011507-001**
Matrix: WASTE WATER **Date/Time Received: 01/15/2020 13:00**

Total Cyanide — Analytical Method: SM 4500-CN C,E -2011 — Preparation Method: SM4500CN-C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Cyanide, Total	**0.011**	mg/L	0.010		1	01/16/20	01/16/20 13:58	1053

Sample ID: 20200115 **Date/Time Sampled: 01/15/2020 09:27** **PSS Sample ID: 20011507-002**
Matrix: WASTE WATER **Date/Time Received: 01/15/2020 13:00**

Total Metals (7) — Analytical Method: EPA 200.8 — Preparation Method: 200.8

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Cadmium	**1.6**	ug/L	1.0		1	01/16/20	01/16/20 18:56	1064
Chromium	**1,030**	ug/L	20.0		20	01/16/20	01/20/20 18:13	1064
Copper	**243**	ug/L	1.00		1	01/16/20	01/20/20 17:28	1064
Lead	**84.9**	ug/L	1.00		1	01/16/20	01/20/20 17:28	1064
Nickel	**546**	ug/L	1.00		1	01/16/20	01/20/20 17:28	1064
Silver	**25.2**	ug/L	1.00		1	01/16/20	01/20/20 17:28	1064
Zinc	**776**	ug/L	20.0		1	01/16/20	01/20/20 17:28	1064

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Project Name: WSSC

PSS Project No.: 20011507

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

All sample receipt conditions were acceptable.

General Comments:

Metals list per project requirements.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

PHASE SEPARATION SCIENCE

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Lab Chronology

Project Name: WSSC
PSS Project No.: 20011507

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
EPA 200.8	20200115	Initial	20011507-002	W	80009	171198	01/16/2020 11:39	01/16/2020 18:56
	80009-1-BKS	BKS	80009-1-BKS	W	80009	171198	01/16/2020 11:39	01/16/2020 18:52
	80009-1-BLK	BLK	80009-1-BLK	W	80009	171198	01/16/2020 11:39	01/16/2020 18:47
	20200115 S	MS	20011507-002 S	W	80009	171198	01/16/2020 11:39	01/16/2020 19:00
	20200115 S	Reanalysis	20011507-002 S	W	80009	171198	01/16/2020 11:39	01/16/2020 19:00
	20200115 SD	MSD	20011507-002 S	W	80009	171198	01/16/2020 11:39	01/16/2020 19:04
	20200115 SD	Reanalysis	20011507-002 S	W	80009	171198	01/16/2020 11:39	01/16/2020 19:04
	20200115	Reanalysis	20011507-002	W	80009	171245	01/16/2020 11:39	01/20/2020 17:28
	20200115	Reanalysis	20011507-002	W	80009	171245	01/16/2020 11:39	01/20/2020 18:13
SM 4500-CN C,E - 2011	20200115	Initial	20011507-001	W	80007	171163	01/16/2020 11:29	01/16/2020 13:58
	80007-1-BKS	BKS	80007-1-BKS	W	80007	171163	01/16/2020 11:29	01/16/2020 13:40
	80007-1-BLK	BLK	80007-1-BLK	W	80007	171163	01/16/2020 11:29	01/16/2020 13:37
	80007-1-BSD	BSD	80007-1-BSD	W	80007	171163	01/16/2020 11:29	01/16/2020 13:43
	20200114 S	MS	20011411-001 S	W	80007	171163	01/16/2020 11:29	01/16/2020 13:52
	Week 2 Grab Discharge S	MS	20011414-001 S	W	80007	171163	01/16/2020 11:29	01/16/2020 14:04
	20200114 SD	MSD	20011411-001 S	W	80007	171163	01/16/2020 11:29	01/16/2020 13:55

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QC Summary

Project Name WSSC
PSS Project No.: 20011507

Analytical Method: SM 4500-CN C,E -2011 Prep Method: SM4500CN-CPRE
Seq Number: 171163 Matrix: Water Date Prep: 01/16/20
MB Sample Id: 80007-1-BLK LCS Sample Id: 80007-1-BKS LCSD Sample Id: 80007-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Cyanide, Total	<0.01000	0.1000	0.09997	100	0.09993	100	85-115	0	20	mg/L	

Analytical Method: EPA 200.8 Prep Method: E200.8_PREP
Seq Number: 171198 Matrix: Water Date Prep: 01/16/20
MB Sample Id: 80009-1-BLK LCS Sample Id: 80009-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Cadmium	<1.000	40.00	39.70	99	85-115	ug/L	
Chromium	<1.000	40.00	38.47	96	85-115	ug/L	
Copper	<1.000	40.00	40.97	102	85-115	ug/L	
Lead	<1.000	40.00	42.99	107	85-115	ug/L	
Nickel	<1.000	40.00	38.92	97	85-115	ug/L	
Silver	<1.000	40.00	39.48	99	85-115	ug/L	
Zinc	<20.00	200	209.5	105	85-115	ug/L	

Analytical Method: EPA 200.8 Prep Method: E200.8_PREP
Seq Number: 171198 Matrix: Waste Water Date Prep: 01/16/20
Parent Sample Id: 20011507-002 MS Sample Id: 20011507-002 S MSD Sample Id: 20011507-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Cadmium	1.606	40.00	42.52	102	42.25	102	70-130	0	25	ug/L	
Chromium	1027	40.00	1051	60	1023	0	70-130	200	25	ug/L	XF
Copper	239	40.00	277	95	270	78	70-130	20	25	ug/L	
Lead	89.23	40.00	134.7	114	133.2	110	70-130	4	25	ug/L	
Nickel	506.6	40.00	540.5	85	526.4	50	70-130	52	25	ug/L	XF
Silver	23.11	40.00	59.85	92	58.34	88	70-130	4	25	ug/L	
Zinc	743.5	200	934.2	95	922.6	90	70-130	5	25	ug/L	

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

(1)

*CLIENT: DDC4C *OFFICE LOC. GSFC NASA

*PROJECT MGR: Hayley Thomas *PHONE NO.: (301) 286-8734

EMAIL: Hayley.Thomas FAX NO.: ( )

*PROJECT NAME: WSSC PROJECT NO.:

SITE LOCATION: Monitoring Point 001 WMP P.O. NO.: 4C535

SAMPLER(S): H. Thomas L. Hrybyk DW CERT NO.:

PSS Work Order #: 20011507 PAGE 1 OF 1

Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil L=Liquid SOL=Solid A=Air WI=Wipe

(2)

LAB NO.	*SAMPLE IDENTIFICATION	*DATE (SAMPLED)	*TIME (SAMPLED)	MATRIX (See Codes)	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	NaOH	HNO3										REMARKS
							Analysis/ Method Required (3) *	cyanide	total metals										
1	20200115	1/15/20	9:26	WW	1	G		X											
2	20200115	1/15/20	9:27	WW	1	G			X										

(5)

Relinquished By: (1)	Date	Time	Received By:
Hayley Thomas	1/15/20	12:00	
Relinquished By: (2)	Date	Time	Received By:
	1/15/20	1:00	
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

(4)

*Requested TAT (One TAT per COC)
☒ 5-Day ☐ 3-Day ☐ 2-Day
☐ Next Day ☐ Emergency ☐ Other

Data Deliverables Required:
COA ☐ QC SUMM ☐ CLP LIKE ☐ OTHER _____

Special Instructions:

DW COMPLIANCE? YES ☐

EDD FORMAT TYPE _____

STATE RESULTS REPORTED TO: MD ☐ DE ☐ PA ☐ VA ☐ WV ☐ OTHER _____

# of Coolers: 1

Custody Seal: ABS

Ice Present: PRES Temp: 6.1°-6.6°C

Shipping Carrier: TK

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723

The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. * = REQUIRED

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Sample Receipt Checklist

Project Name: WSSC
PSS Project No.: 20011507

Client Name DDC-4C
Disposal Date 02/19/2020

Received By Thomas Wingate
Date Received 01/15/2020 01:00:00 PM
Delivered By Trans Time Express
Tracking No Not Applicable
Logged In By Thomas Wingate

Shipping Container(s)
No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	6.6
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

		Sampler Name	HT & LH
COC agrees with sample labels?	Yes	MD DW Cert. No.	N/A
Chain of Custody	Yes		

Sample Container

		Custody Seal(s) Intact?	Not Applicable
Appropriate for Specified Analysis?	Yes	Seal(s) Signed / Dated	Not Applicable
Intact?	Yes		
Labeled and Labels Legible?	Yes		

Holding Time

		Total No. of Samples Received	2
All Samples Received Within Holding Time(s)?	Yes	Total No. of Containers Received	2

Preservation

Total Metals	(pH<2)	Yes
Dissolved Metals, filtered within 15 minutes of collection	(pH<2)	N/A
Orthophosphorus, filtered within 15 minutes of collection		N/A
Cyanides	(pH>12)	Yes
Sulfide	(pH>9)	N/A
TOC, DOC (field filtered), COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A
524 VOC (Rcvd with trip blanks)	(pH<2)	N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By: Thomas Wingate — Date: 01/15/2020

PM Review and Approval: Lynn Jackson — Date: 01/15/2020