SSO WATER QUALITY ASSESSMENT

Date of overflow: 1/2/22

Sample collection date: 1/2/22

Sample collection time at Site #1: 1051
Site #2: 1057
Site #3: 1118

	Overflow location Site 1	Upstream Site 2	Downstream Site 3
pH	7.09	7.17	7.04
Temperature	10.8	10.1	9.2
DO	10.72	11.2	11.1
Conductivity	57.62	57.07	59.04
Turbidity	10.2	14.5	12
Alkalinity	10	7	10
BOD	1.81	2.33	2.26
TSS	2.4	7	2.4
Ammonia	0.01	0.01	0.01
Total Phosphorus	0.03	0.05	0.04
Ortho-phosphate	0.01	0.01	0.02
Sulfate	16	15.6	16.1
TDS	51	46	57
Chloride	3	3	3
Nitrate/Nitrite	0.5	0.53	0.52
TKN	0.74	0.57	0.65
Chlophyll A	<.005	<.005	<.005
Fecal Coliforms	51.43	120	114.28
E. Coli	517.2	461.1	686.7

AMERICAN INTERPLEX CORPORATION
LABORATORIES

City of Hot Springs
ATTN: Mr. Harold Mauldin
320 Davidson Drive
Hot Springs, AR 71901

This report contains the analytical results and supporting information for samples received on January 3, 2022. Attached please find a copy of the Chain of Custody and/or other documents received. Note that any remaining sample will be discarded two weeks from the original report date unless other arrangements are made.

This report is intended for the sole use of the client listed above. Assessment of the data requires access to the entire document.

This report has been reviewed by the Chief Operating Officer or a qualified designee.

by LP
John Overbey
Chief Operating Officer

This document has been distributed to the following:

PDF cc: City of Hot Springs
ATTN: Mr. Dennis Brunson
dbrunson@cityhs.net

City of Hot Springs
ATTN: Mr. Harold Mauldin
wwlab@cityhs.net

City of Hot Springs
ATTN: Ms. Mandy King
mking@cityhs.net

AMERICAN INTERPLEX CORPORATION LABORATORIES

City of Hot Springs
320 Davidson Drive
Hot Springs, AR 71901

SAMPLE INFORMATION

Project Description:
Three (3) water sample(s) received on January 3, 2022
Manhole 1750
P.O. No. 2021-839

Receipt Details:
A Chain of Custody was provided. The samples were delivered in three (3) ice chests.

Each sample container was checked for proper labeling, including date and time sampled. Sample containers were reviewed for proper type, adequate volume, integrity, temperature, preservation, and holding times. Any exceptions are noted below:

Sample Identification:

Laboratory ID	Client Sample ID	Sampled Date/Time	Notes
261709-1	Site 2	02-Jan-2022 1057	
261709-2	Site 1	02-Jan-2022 1057	
261709-3	Site 3	02-Jan-2022 1118	

Qualifiers:
D Result is from a secondary dilution factor

References:
"Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/5-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993).
"Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846)", Third Edition.
"Standard Methods for the Examination of Water and Wastewaters", (SM).
"American Society for Testing and Materials" (ASTM).
"Association of Analytical Chemists" (AOAC).

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ANALYTICAL RESULTS

AIC No. 261709-1
Sample Identification: Site 2 02-Jan-2022 1057

Analyte		Result	RL	Units	Qualifier
Total Kjeldahl Nitrogen		**0.57**	0.5	**mg/l**	D
EPA 351.2	Prep: 03-Jan-2022 1128 by 347	Analyzed: 04-Jan-2022 1451 by 347		Batch: W78171	Dil: 2
Chlorophyll A		**< 0.0050**	0.0050	**mg/l**	
SM 10200 H 2011		Analyzed: 04-Jan-2022 1027 by 45		Batch: W78184	
Total Dissolved Solids		**46**	25	**mg/l**	
SM 2540 C 2011	Prep: 03-Jan-2022 1221 by 100	Analyzed: 04-Jan-2022 1636 by 100		Batch: W78172	
Chloride		**3.0**	0.2	**mg/l**	
EPA 300.0	Prep: 03-Jan-2022 1503 by 338	Analyzed: 04-Jan-2022 0048 by 338		Batch: C25003	
Nitrate + Nitrite as N		**0.53**	0.5	**mg/l**	D
EPA 300.0	Prep: 03-Jan-2022 1503 by 338	Analyzed: 04-Jan-2022 0027 by 338		Batch: C25003	Dil: 10

AIC No. 261709-2
Sample Identification: Site 1 02-Jan-2022 1057

Analyte		Result	RL	Units	Qualifier
Total Kjeldahl Nitrogen		**0.74**	0.5	**mg/l**	D
EPA 351.2	Prep: 03-Jan-2022 1128 by 347	Analyzed: 04-Jan-2022 1501 by 347		Batch: W78171	Dil: 2
Chlorophyll A		**< 0.0050**	0.0050	**mg/l**	
SM 10200 H 2011		Analyzed: 04-Jan-2022 1027 by 45		Batch: W78184	
Total Dissolved Solids		**51**	25	**mg/l**	
SM 2540 C 2011	Prep: 03-Jan-2022 1221 by 100	Analyzed: 04-Jan-2022 1636 by 100		Batch: W78172	
Chloride		**3.0**	0.2	**mg/l**	
EPA 300.0	Prep: 03-Jan-2022 1503 by 338	Analyzed: 04-Jan-2022 0129 by 338		Batch: C25003	
Nitrate + Nitrite as N		**0.50**	0.5	**mg/l**	D
EPA 300.0	Prep: 03-Jan-2022 1503 by 338	Analyzed: 04-Jan-2022 0109 by 338		Batch: C25003	Dil: 10

AIC No. 261709-3
Sample Identification: Site 3 02-Jan-2022 1118

Analyte		Result	RL	Units	Qualifier
Total Kjeldahl Nitrogen		**0.65**	0.5	**mg/l**	D
EPA 351.2	Prep: 03-Jan-2022 1128 by 347	Analyzed: 04-Jan-2022 1502 by 347		Batch: W78171	Dil: 2
Chlorophyll A		**< 0.0050**	0.0050	**mg/l**	
SM 10200 H 2011		Analyzed: 04-Jan-2022 1027 by 45		Batch: W78184	
Total Dissolved Solids		**57**	25	**mg/l**	
SM 2540 C 2011	Prep: 03-Jan-2022 1221 by 100	Analyzed: 04-Jan-2022 1636 by 100		Batch: W78172	
Chloride		**3.0**	0.2	**mg/l**	
EPA 300.0	Prep: 03-Jan-2022 1503 by 338	Analyzed: 04-Jan-2022 0211 by 338		Batch: C25003	
Nitrate + Nitrite as N		**0.52**	0.5	**mg/l**	D
EPA 300.0	Prep: 03-Jan-2022 1503 by 338	Analyzed: 04-Jan-2022 0150 by 338		Batch: C25003	Dil: 10

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DUPLICATE RESULTS

Analyte	AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual
Total Dissolved Solids	261676-2	1400 mg/l			03Jan22 1221 by 100	04Jan22 1636 by 100		
Batch: W78172	Duplicate	1400 mg/l	0.779	10.0	03Jan22 1222 by 100	04Jan22 1636 by 100		

LABORATORY CONTROL SAMPLE RESULTS

Analyte	Spike Amount	%	Limits	RPD	Limit	Batch	Preparation Date	Analysis Date	Dil	Qual
Total Kjeldahl Nitrogen	1 mg/l	123	102-150			W78171	03Jan22 1129 by 347	04Jan22 1449 by 347		
Total Dissolved Solids	2000 mg/l	93.7	85.0-115			W78172	03Jan22 1222 by 100	04Jan22 1636 by 100		
Chloride	25 mg/l	99.7	90.0-110			C25003	03Jan22 1504 by 338	03Jan22 1716 by 338		
Nitrate + Nitrite as N	10 mg/l	98.5	90.0-110			C25003	03Jan22 1504 by 338	03Jan22 1716 by 338		

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Total Kjeldahl Nitrogen	261709-1	1 mg/l	98.8	17.4-152	W78171	03Jan22 1129 by 347	04Jan22 1452 by 347		
	261709-1	1 mg/l	107	17.4-152	W78171	03Jan22 1129 by 347	04Jan22 1454 by 347		
	Relative Percent Difference:		6.46	11.2	W78171				
Chloride	261674-2	25 mg/l	103	80.0-120	C25003	03Jan22 1504 by 338	03Jan22 1737 by 338		
	261674-2	25 mg/l	104	80.0-120	C25003	03Jan22 1504 by 338	03Jan22 1758 by 338		
	Relative Percent Difference:		0.249	10.0	C25003				
Nitrate + Nitrite as N	261674-2	10 mg/l	98.0	80.0-120	C25003	03Jan22 1504 by 338	03Jan22 1737 by 338		
	261674-2	10 mg/l	98.3	80.0-120	C25003	03Jan22 1504 by 338	03Jan22 1758 by 338		
	Relative Percent Difference:		0.367	10.0	C25003				

LABORATORY BLANK RESULTS

Analyte	Result	RL	LOQ	QC Sample	Preparation Date	Analysis Date	Qual
Total Kjeldahl Nitrogen	< 0.5 mg/l	0.5	0.5	W78171-1	03Jan22 1129 by 347	04Jan22 1447 by 347	D
Total Dissolved Solids	< 25 mg/l	25	25	W78172-1	03Jan22 1222 by 100	04Jan22 1636 by 100	
Chloride	< 0.1 mg/l	0.1	0.2	C25003-1	03Jan22 1504 by 338	03Jan22 1655 by 338	
Nitrate + Nitrite as N	< 0.03 mg/l	0.03	0.05	C25003-1	03Jan22 1504 by 338	03Jan22 1655 by 338	

AMERICAN INTERPLEX CORPORATION
LABORATORIES

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client: City of Hot Springs
Project Reference: Manhole 1750
Project Manager: Harold Mauldin
Sampled By:

PO No. 2021-839

AIC CONTROL NO: 261704
AIC PROPOSAL NO:
Carrier:
Received Temperature C: 0.1, 0.1, 0.1

AIC No.	Sample Identification	Date/Time Collected	GRAB	COMP	SAMPLE MATRIX: WATER	SOIL	NO OF BOTTLES	Total Dissolved Solids	Chloride	Nitrate+Nitrite	TKN	Chlorophyll A	Remarks
	Site 2 Upstream	1-2-22 @ 1057	✓		✓		3	✓	✓	✓	✓	✓	
	Site 1	1-2-22 @ 1051	✓		✓		3	✓	✓	✓	✓	✓	
	Site 3 Downstream	1-2-22 @ 1118	✓		✓		3	✓	✓	✓	✓	✓	
		Container Type											Field pH calibration
		Preservative											on _____ @ _____ Buffer:

G = Glass P = Plastic V = VOA vials H = HCl to pH2 T = Sodium Thiosulfate
NO = none S = Sulfuric acid pH2 N = Nitric acid pH2 B = NaOH to pH12 Z = Zinc acetate

Turnaround Time Requested: (Please circle)
NORMAL or EXPEDITED IN ____ DAYS
Expedited results requested by: _____
Who should AIC contact with questions: _____
Phone: _____ Fax: _____
Report Attention to:
Report Address to:

Relinquished By:	Date/Time	Received By:	Date/Time
A. Carter	1-3-22 @ 0850	B. Garner	1-3-22 @ 0850
B. Garner	1-3-22 @ 1000		

Received in Lab By: [signature] Date/Time: 1-3-22 1000

Comments: