



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 June 13, 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
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City of Hot Springs
320 Davidson Drive
Hot Springs, AR 71901

SAMPLE INFORMATION

Project Description:

Three (3) water sample(s) received on June 13, 2022
Manhole 1750
P.O. No. 2022-247

Receipt Details:

A Chain of Custody was provided. The samples were delivered in two (2) 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:

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Sampled Date/Time</u>	<u>Notes</u>
266393-1	Site 1	11-Jun-2022 1211	
266393-2	Site 2	11-Jun-2022 1215	
266393-3	Site 3	11-Jun-2022 1228	

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. 266393-1

Sample Identification: Site 1 11-Jun-2022 1211

<u>Analyte</u>	<u>Result</u>	<u>RL</u>	<u>Units</u>	<u>Qualifier</u>
Total Kjeldahl Nitrogen EPA 351.2	0.71	0.5	mg/l	D
Prep: 14-Jun-2022 1354 by 330	Analyzed: 16-Jun-2022 1055 by 352		Batch: W79869	Dil: 2
Chlorophyll A SM 10200 H 2011	< 0.0050	0.0050	mg/l	
	Analyzed: 13-Jun-2022 1021 by 45		Batch: W79855	
Total Dissolved Solids SM 2540 C 2015	37	25	mg/l	
Prep: 13-Jun-2022 1340 by 100	Analyzed: 15-Jun-2022 1158 by 100		Batch: W79860	
Chloride EPA 300.0	2.0	0.2	mg/l	
Prep: 15-Jun-2022 0831 by 338	Analyzed: 15-Jun-2022 1938 by 338		Batch: C25381	
Nitrate + Nitrite as N EPA 300.0	< 0.5	0.5	mg/l	D
Prep: 15-Jun-2022 0831 by 338	Analyzed: 15-Jun-2022 1917 by 338		Batch: C25381	Dil: 10

AIC No. 266393-2

Sample Identification: Site 2 11-Jun-2022 1215

<u>Analyte</u>	<u>Result</u>	<u>RL</u>	<u>Units</u>	<u>Qualifier</u>
Total Kjeldahl Nitrogen EPA 351.2	0.71	0.5	mg/l	D
Prep: 14-Jun-2022 1354 by 330	Analyzed: 16-Jun-2022 1057 by 352		Batch: W79869	Dil: 2
Chlorophyll A SM 10200 H 2011	< 0.0050	0.0050	mg/l	
	Analyzed: 13-Jun-2022 1021 by 45		Batch: W79855	
Total Dissolved Solids SM 2540 C 2015	38	25	mg/l	
Prep: 13-Jun-2022 1340 by 100	Analyzed: 15-Jun-2022 1158 by 100		Batch: W79860	
Chloride EPA 300.0	1.9	0.2	mg/l	
Prep: 15-Jun-2022 0831 by 338	Analyzed: 15-Jun-2022 2101 by 338		Batch: C25381	
Nitrate + Nitrite as N EPA 300.0	< 0.5	0.5	mg/l	D
Prep: 15-Jun-2022 0831 by 338	Analyzed: 15-Jun-2022 2040 by 338		Batch: C25381	Dil: 10

AIC No. 266393-3

Sample Identification: Site 3 11-Jun-2022 1228

<u>Analyte</u>	<u>Result</u>	<u>RL</u>	<u>Units</u>	<u>Qualifier</u>
Total Kjeldahl Nitrogen EPA 351.2	0.76	0.5	mg/l	D
Prep: 14-Jun-2022 1354 by 330	Analyzed: 16-Jun-2022 1059 by 352		Batch: W79869	Dil: 2
Chlorophyll A SM 10200 H 2011	< 0.0050	0.0050	mg/l	
	Analyzed: 13-Jun-2022 1021 by 45		Batch: W79855	
Total Dissolved Solids SM 2540 C 2015	34	25	mg/l	
Prep: 13-Jun-2022 1340 by 100	Analyzed: 15-Jun-2022 1158 by 100		Batch: W79860	
Chloride EPA 300.0	2.0	0.2	mg/l	
Prep: 15-Jun-2022 0831 by 338	Analyzed: 15-Jun-2022 2143 by 338		Batch: C25381	
Nitrate + Nitrite as N EPA 300.0	< 0.5	0.5	mg/l	D
Prep: 15-Jun-2022 0831 by 338	Analyzed: 15-Jun-2022 2122 by 338		Batch: C25381	Dil: 10

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DUPLICATE RESULTS

Analyte	AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual
Chlorophyll A	266393-1	< 0.0050 mg/l				13Jun22 1021 by 45		
	Batch: W79855 Duplicate	< 0.0050 mg/l	0.00	10.0		13Jun22 1022 by 45		
Total Dissolved Solids	266227-2	1400 mg/l			13Jun22 1340 by 100	15Jun22 1158 by 100		
	Batch: W79860 Duplicate	1400 mg/l	0.792	10.0	13Jun22 1340 by 100	15Jun22 1158 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	119	99.6-146			W79869	14Jun22 1355 by 330	16Jun22 1043 by 352		
Total Dissolved Solids	2000 mg/l	95.9	85.0-115			W79860	13Jun22 1340 by 100	15Jun22 1158 by 100		
Chloride	25 mg/l	99.6	90.0-110			C25381	15Jun22 0832 by 338	15Jun22 1404 by 338		
Nitrate + Nitrite as N	10 mg/l	101	90.0-110			C25381	15Jun22 0832 by 338	15Jun22 1404 by 338		

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual	
Total Kjeldahl Nitrogen	266360-2	1 mg/l	107	49.4-153	W79869	14Jun22 1355 by 330	16Jun22 1134 by 352	5	D	
	266360-2	1 mg/l	110	49.4-153	W79869	14Jun22 1355 by 330	16Jun22 1136 by 352	5	D	
	Relative Percent Difference:		0.734	11.6	W79869					D
Chloride	266396-1	25 mg/l	99.0	80.0-120	C25381	15Jun22 0832 by 338	15Jun22 1426 by 338			
	266396-1	25 mg/l	99.1	80.0-120	C25381	15Jun22 0832 by 338	15Jun22 1447 by 338			
	Relative Percent Difference:		0.0723	10.0	C25381					
Nitrate + Nitrite as N	266396-1	10 mg/l	100	80.0-120	C25381	15Jun22 0832 by 338	15Jun22 1426 by 338			
	266396-1	10 mg/l	100	80.0-120	C25381	15Jun22 0832 by 338	15Jun22 1447 by 338			
	Relative Percent Difference:		0.199	10.0	C25381					

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	W79869-1	14Jun22 1355 by 330	16Jun22 1041 by 352	D
Chlorophyll A	< 0.0050 mg/l	0.0050	0.005	W79855-1		13Jun22 1022 by 330	
Total Dissolved Solids	< 25 mg/l	25	25	W79860-1	13Jun22 1340 by 100	15Jun22 1158 by 100	
Chloride	< 0.2 mg/l	0.2	0.2	C25381-1	15Jun22 0832 by 338	15Jun22 1341 by 338	
Nitrate + Nitrite as N	< 0.03 mg/l	0.03	0.05	C25381-1	15Jun22 0832 by 338	15Jun22 1341 by 338	



CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client: <u>City of Hot Springs</u>		PO No.: <u>2022-247</u>		ANALYSES REQUESTED		AIC CONTROL NO.: <u>266393</u>	
Project Reference: <u>Manhole 1750</u>		MATRIX:		NO OF BOTTLES		AIC PROPOSAL NO.:	
Project Manager: <u>Harold Mauldin</u>		WATER		3		Carrier:	
Sampled By: <u>AC</u>		COMPOUND		3		Received Temperature C: <u>0.6/0.1</u>	
Sample Identification		GRA B		3		Remarks:	
1 Site 1		✓		3		Field pH calibration on @	
2 Site 2		✓		3		Buffer:	
3 Site 3		✓		3		T = Sodium Thiosulfate	
						Z = Zinc acetate	
						A = (NH ₄) ₂ SO ₄ , NH ₄ OH	
						Date/Time: <u>6-13-22</u>	
						By: <u>B. Harner</u>	
						Date/Time: <u>6.13.22</u>	
						Received in Lab	
						By: <u>P. Brown</u>	
						Date/Time: <u>6-13-22</u>	
						By: <u>0935</u>	
						Comments:	

