

GUARDIAN SYSTEMS, INC.

1108 Ashville Road
P.O. Box 190
Leeds, Alabama 35094

Telephone (205) 699-6647
Fax (205) 699-3882

Page 1 of 9

City of Leeds
City of Leeds
1040 Park Drive
Leeds, AL 35094
Attention: Mr. Brad Watson

Report Date: 02/18/2021
Receive Date: 02/09/2021
Receive Time: 16:48

Control No : 2102-00183 Sample # 001
Sampler : DL
Sample ID: DC-SS-3

Sample Date: 02/09/2021
Sample Time: 16:01

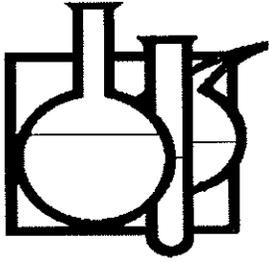
Laboratory Certificate

PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
pH	7.22	SU	DB	02/09/2021	16:01	4500-H	
Turbidity, Nephelometric	7.51	NTU	DB	02/09/2021	16:01	180.1	
Specific Conductance (FLD)	226.	umhos	DB	02/09/2021	16:01	120.1	(1)
Color, APHA	<10.	PCU	ML	02/10/2021	16:15	SM2120B	
Nitrogen, Ammonia	<0.1	mg/L	CAC	02/15/2021	13:52	350.2	(1)
Hardness, Total	75.	mg/L	DRH	02/15/2021	12:00	200.7	
Calcium	23.9	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Magnesium	3.83	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Potassium	1.19	mg/L	DRH	02/15/2021	12:00	200.7	(1)

This Certificate is Continued On Next Page.

METHOD REFERENCES

1. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-20, revised March 1983, August 1993 May 1994
2. Standard Methods for the Examination of Water and Waste Water, 18th, 19th, 20th, and 22nd Edition, 2012
3. Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Updated IV December 1996
4. 1987 ASTM Annual Standards
5. Code of Federal Regulations, Title 40, Part 136, Appendix A, Revised July 1995
6. Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July 1991, August 1995
7. NIOSH Manual of Analytical Methods, 4th Edition, May 1996



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Attention: Mr. Brad Watson

Report Date: 02/18/2021
Receive Date: 02/09/2021
Receive Time: 16:48

Control No : 2102-00183 Sample # 002
Sampler : DB
Sample ID: DC-SS-4

Sample Date: 02/09/2021
Sample Time: 16:05

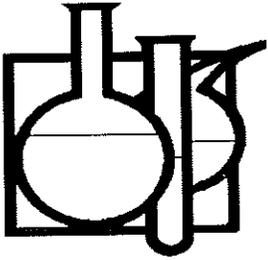
Laboratory Certificate

PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
pH	7.01	SU	DB	02/09/2021	16:05	4500-H	
Turbidity, Nephelometric	8.67	NTU	DB	02/09/2021	16:05	180.1	
Specific Conductance (FLD)	220.	umhos	DB	02/09/2021	16:05	120.1	(1)
Nitrogen, Ammonia	<0.1	mg/L	CAC	02/15/2021	13:52	350.2	(1)
Hardness, Total	76.	mg/L	DRH	02/15/2021	12:00	200.7	
Calcium	24.2	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Magnesium	3.89	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Potassium	1.04	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Color, APHA	<10.	PCU	ML	02/10/2021	16:15	SM2120B	

This Certificate is Continued On Next Page.

METHOD REFERENCES

1. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-20, revised March 1983, August 1993 May 1994
2. Standard Methods for the Examination of Water and Waste Water, 18th, 19th, 20th, and 22nd Edition, 2012
3. Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Updated IV December 1996
4. 1987 ASTM Annual Standards
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Attention: Mr. Brad Watson

Report Date: 02/18/2021
Receive Date: 02/09/2021
Receive Time: 16:48

Control No: 2102-00183 Sample # 003
Sampler: DL
Sample ID: LC-MP-3

Sample Date: 02/09/2021
Sample Time: 16:23

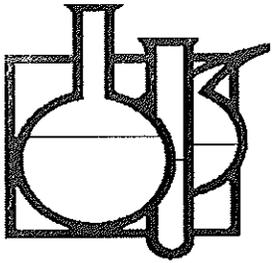
Laboratory Certificate

PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
pH	7.87	SU	DB	02/09/2021	16:23	150.1	
Turbidity, Nephelometric	2.20	NTU	DB	02/09/2021	16:23	180.1	
Conductance, Sp. (field)	407.	umhos	DB	02/09/2021	16:23	120.1	(1)
Nitrogen, Ammonia	<0.1	mg/L	CAC	02/15/2021	13:52	350.2	(1)
Color, APHA	<10.	PCU	ML	02/10/2021	16:15	110.2	
Hardness, Total	173.	mg/L	DRH	02/15/2021	12:00	200.7	
Calcium	59.8	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Magnesium	5.82	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Potassium	1.15	mg/L	DRH	02/15/2021	12:00	200.7	(1)

This Certificate is Continued On Next Page.

METHOD REFERENCES

1. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-20, revised March 1983, August 1993 May 1994
2. Standard Methods for the Examination of Water and Waste Water, 18th, 19th, 20th, and 22nd Edition, 2012
3. Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Updated IV December 1996
4. 1987 ASTM Annual Standards
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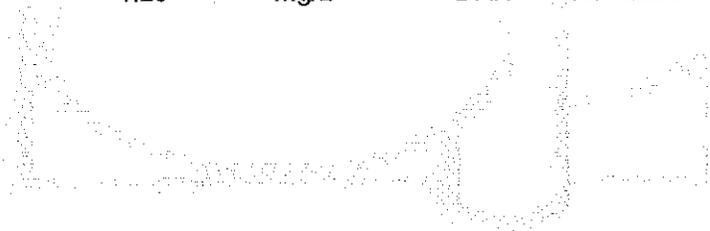
Report Date: 02/18/2021
Receive Date: 02/09/2021
Receive Time: 16:48

Control No : 2102-00183 Sample # 004
Sampler : DL
Sample ID: LC-MP-2

Sample Date: 02/09/2021
Sample Time: 16:19

Laboratory Certificate

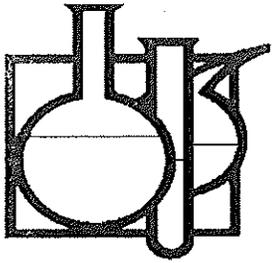
PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
pH	7.84	SU	DB	02/09/2021	16:19	150.1	
Turbidity, Nephelometric	2.47	NTU	DB	02/09/2021	16:19	180.1	
Conductance, Sp. (field)	427.	umhos	DB	02/09/2021	16:19	120.1	(1)
Nitrogen, Ammonia	<0.1	mg/L	CAC	02/15/2021	13:52	350.2	(1)
Color, APHA	<10.	PCU	ML	02/10/2021	16:15	110.2	
Hardness, Total	174.	mg/L	DRH	02/15/2021	12:00	200.7	
Calcium	59.9	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Magnesium	5.93	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Potassium	1.20	mg/L	DRH	02/15/2021	12:00	200.7	(1)



This Certificate is Continued On Next Page.

METHOD REFERENCES

1. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-20, revised March 1983, August 1993 May 1994
2. Standard Methods for the Examination of Water and Waste Water, 18th, 19th, 20th, and 22nd Edition, 2012
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Leeds, AL 35094
Attention: Mr. Brad Watson

Report Date: 02/18/2021
Receive Date: 02/09/2021
Receive Time: 16:48

Control No : 2102-00183 Sample # 005
Sampler : DL
Sample ID: LC-MP-1

Sample Date: 02/09/2021
Sample Time: 16:13

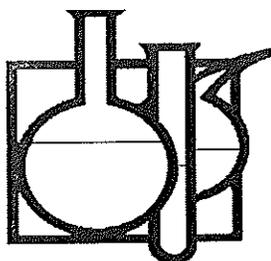
Laboratory Certificate

PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
pH	7.61	SU	DB	02/09/2021	16:13	150.1	
Turbidity, Nephelometric	2.14	NTU	DB	02/09/2021	16:13	180.1	
Conductance, Sp. (field)	421.	umhos	DB	02/09/2021	16:13	120.1	(1)
Nitrogen, Ammonia	<0.1	mg/L	CAC	02/15/2021	13:52	350.2	(1)
Color, APHA	<10.	PCU	ML	02/10/2021	16:15	110.2	
Hardness, Total	174.	mg/L	DRH	02/15/2021	12:00	200.7	
Calcium	59.8	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Magnesium	6.04	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Potassium	1.19	mg/L	DRH	02/15/2021	12:00	200.7	(1)

This Certificate is Continued On Next Page.

METHOD REFERENCES

1. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-20, revised March 1983, August 1993 May 1994
2. Standard Methods for the Examination of Water and Waste Water, 18th, 19th, 20th, and 22nd Edition, 2012
3. Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Updated IV December 1996
4. 1987 ASTM Annual Standards
5. Code of Federal Regulations, Title 40, Part 136, Appendix A, Revised July 1995
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Page 6 of 9

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Leeds, AL 35094
Attention: Mr. Brad Watson

Report Date: 02/18/2021
Receive Date: 02/09/2021
Receive Time: 16:48

Control No : 2102-00183 Sample # 006
Sampler : DL
Sample ID: LC-SS-6

Sample Date: 02/09/2021
Sample Time: 16:30

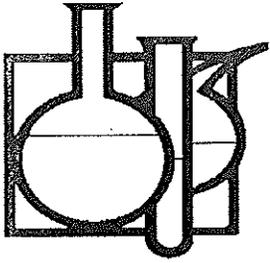
Laboratory Certificate

PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
pH	7.56	SU	DB	02/09/2021	16:30	150.1	
Turbidity, Nephelometric	3.45	NTU	DB	02/09/2021	16:30	180.1	
Conductance, Sp. (field)	425.	umhos	DB	02/09/2021	16:30	120.1	(1)
Nitrogen, Ammonia	0.2	mg/L	CAC	02/15/2021	13:52	350.2	(1)
Color, APHA	<10.	PCU	ML	02/10/2021	16:15	110.2	
Hardness, Total	157.	mg/L	DRH	02/15/2021	12:00	200.7	
Calcium	54.7	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Magnesium	4.90	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Potassium	1.22	mg/L	DRH	02/15/2021	12:00	200.7	(1)

This Certificate is Continued On Next Page.

METHOD REFERENCES

1. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-20, revised March 1983, August 1993 May 1994
2. Standard Methods for the Examination of Water and Waste Water, 18th, 19th, 20th, and 22nd Edition, 2012
3. Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Updated IV December 1996
4. 1987 ASTM Annual Standards
5. Code of Federal Regulations, Title 40, Part 136, Appendix A, Revised July 1995
6. Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July 1991, August 1995
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Page 7 of 9

City of Leeds
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Attention: Mr. Brad Watson

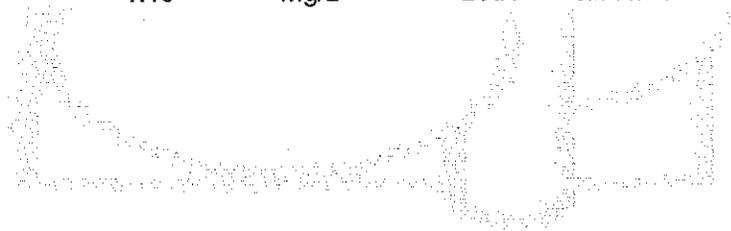
Report Date: 02/18/2021
Receive Date: 02/09/2021
Receive Time: 16:48

Control No : 2102-00183 Sample # 007
Sampler : DB
Sample ID: LC-SS-7

Sample Date: 02/09/2021
Sample Time: 16:36

Laboratory Certificate

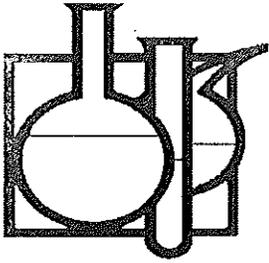
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pH	7.96	SU	DB	02/09/2021	16:36	150.1	
Turbidity, Nephelometric	2.44	NTU	DB	02/09/2021	16:36	180.1	
Conductance, Sp. (field)	414.	umhos	DB	02/09/2021	16:36	120.1	(1)
Nitrogen, Ammonia	<0.1	mg/L	CAC	02/15/2021	13:52	350.2	(1)
Color, APHA	<10.	PCU	ML	02/10/2021	16:15	110.2	
Hardness, Total	160.	mg/L	DRH	02/15/2021	12:00	200.7	
Calcium	55.7	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Magnesium	4.98	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Potassium	1.10	mg/L	DRH	02/15/2021	12:00	200.7	(1)



This Certificate is Continued On Next Page.

METHOD REFERENCES

1. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-20, revised March 1983, August 1993 May 1994
2. Standard Methods for the Examination of Water and Waste Water, 18th, 19th, 20th, and 22nd Edition, 2012
3. Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Updated IV December 1996
4. 1987 ASTM Annual Standards
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1040 Park Drive
Leeds, AL 35094
Attention: Mr. Brad Watson

Report Date: 02/18/2021
Receive Date: 02/09/2021
Receive Time: 16:48

Control No : 2102-00183 Sample # 008
Sampler : DL
Sample ID: LC-SS-9

Sample Date: 02/09/2021
Sample Time: 16:45

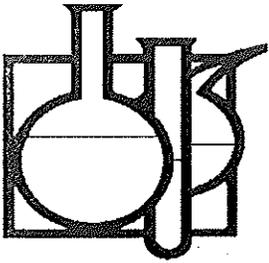
Laboratory Certificate

PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
pH	8.02	SU	DB	02/09/2021	16:45	150.1	
Turbidity, Nephelometric	3.35	NTU	DB	02/09/2021	16:45	180.1	
Conductance, Sp. (field)	399.	umhos	DB	02/09/2021	16:45	120.1	(1)
Color, APHA	<10.	PCU	ML	02/10/2021	16:15	110.2	
Nitrogen, Ammonia	0.1	mg/L	CAC	02/15/2021	13:52	350.2	(1)
Calcium	58.2	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Magnesium	5.53	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Potassium	<1.0	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Hardness, Total	168.	mg/L	DRH	02/15/2021	12:00	200.7	

This Certificate is Continued On Next Page.

METHOD REFERENCES

1. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-20, revised March 1983, August 1993 May 1994
2. Standard Methods for the Examination of Water and Waste Water, 18th, 19th, 20th, and 22nd Edition, 2012
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1040 Park Drive
Leeds, AL 35094
Attention: Mr. Brad Watson

Report Date: 02/18/2021
Receive Date: 02/09/2021
Receive Time: 16:48

Control No : 2102-00183 Sample # 009
Sampler : DL
Sample ID: LC-SS-10

Sample Date: 02/09/2021
Sample Time: 14:40

Laboratory Certificate

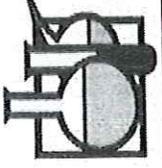
PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
pH	7.96	SU	DB	02/09/2021	14:40	150.1	
Turbidity, Nephelometric	2.43	NTU	DB	02/09/2021	14:40	180.1	
Conductance, Sp. (field)	384.	umhos	DB	02/09/2021	14:40	120.1	(1)
Color, APHA	<10.	PCU	ML	02/10/2021	16:15	110.2	
Nitrogen, Ammonia	0.8	mg/L	CAC	02/15/2021	13:52	350.2	(1)
Calcium	55.3	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Magnesium	4.98	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Potassium	1.17	mg/L	DRH	02/15/2021	12:00	200.7	(1)
Hardness, Total	159.	mg/L	DRH	02/15/2021	12:00	200.7	

Approved By:



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1. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-20, revised March 1983, August 1993 May 1994
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Chain of Custody Record/ Analysis Report

Guardian Systems, Inc.
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(205) 699-3882 Fax
 www.gsilab.com

Client: Mr. Brad Watson
 Company: City of Leeds
 Address: 1040 Park Drive
 Leeds, AL 35094

Phone: _____
 Fax: _____
 P.O.#: _____

Project: 2021 1st Semester Stormwater- Dry
 Analysis Requested

Sample ID	Sample Description	Sample Date	Sample Time	Sample			Sample Preservative				Field pH:	Field Turbidity:	Field Conductivity:	APHA Color	Ammonia	Hardness. Ca. Mg. K	Time:
				Comp.*	Grab	Glass	Plastic	HCl	HNO ₃	H ₂ SO ₄							
LC-MP-3		2/9-21	4:23										7.87				
LC-MP-2			4:19	X	X	X							7.34				
				X	X	X							2.47				
				X	X	X							4.27				

Sampled by: Date: Brad Watson Time: _____ Date: 2-9-21 Time: 16:48
 Received by: _____ Time: _____ Date: _____
 Received by: Date: Lou Berger Time: 10:48 Date: _____
 Was Shipped Container intact when received? Yes No Seals intact? Yes No
 Were all samples properly preserved? Yes No Initials LB Sample temp. 5.8 °C

Other = See Above for Sample Preservatives, Field Measurements

PH Meter Calibration Info	Buffer Traceability #	Exp. Date	QC Sample	Technician Information
Buffer #: 4.00	INRE 20030203	21 Jan 22	Traceability # INAC 2005101	Calibrated by: <u>Brad Watson</u>
Buffer #: 7.00	INRE 19101602	30 Sep 21	pH: 6.53 (6.40)	Calibration Time: 3:45
Buffer #: 10.00	INRE 20030204	4 Oct 21	Turb:	Calibration Date: 2-9-21
Turbidity Meter Calibration Info	Standard Traceability #	Exp. Date		Calibration Temp: 66°F
Standard # 500 NTU		3/21		
Standard # 100 NTU		3/21		
Standard # 20 NTU		3/21		

Notes: _____

